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**Teaching, Learning and E-learning
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Improving the Quality of Online Collaborative Learning for Software Engineering Students

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Abstract

Educational institutions are searching for new ways to improve learning. Collaborative Learning is a method of facilitating learning, allowing individuals to share knowledge. Technology increasingly play a bigger part in education. Computer Supported Collaborative Learning is a framework that allows students to work cooperatively, but at a distance. This article focuses on revealing the benefits of collaborative e-learning and exploring the implementation of the features which allow it to help learning. This is examined by first exploring the benefits of collaborative learning over individual learning in the literature. More insights were collected by conducting interviews with software engineering lecturers and students. They provided information about collaborative e-learning and features that can increase the quality of learning. Findings revealed that students need to have a variety of exercises. Also, the online learning system has to be set up in a way that facilitates the sharing of information, and students have to know what is expected of them. Findings also showed that learning progress indicators are helpful for the students. The article ends with an experiment setup that can explore the effectiveness of different features of a collaborative e-learning system.

Keywords: collaborative learning, collaborative e-learning, computer supported collaborative learning, UML, facilitating learning

1. INTRODUCTION

1.1 Background information

Educational institutions are always seeking to use the most effective methods for teaching. Moreover, they are trying to implement different technologies and techniques within their organization in order to improve the quality of the education they are providing [1]. One of the techniques that improves the quality of students' learning is **collaborative learning** [2]. Collaborative Learning is a method of learning in which individual members of a group can contribute knowledge according to their efforts and abilities [3]. As a result, a collaborative learning environment together with an active learning process and the new technology enhances students' engagement, collaboration skills and the entire learning process, when they are combined [4].

Some subjects are more complex than others and require different teaching methods. **UML** (The Unified Modelling Language) is a language for specifying, constructing, visualizing, and documenting the artifacts of a software-intensive system [5]. Despite its recognition as a standard object-oriented modelling language, UML has been criticized for such deficiencies as semantic inconsistencies, vagueness, and conflicting notations. There seems to be a relationship between these deficiencies and the difficulties in the learning process of UML [6].

1.2 Learning UML

Web-based tools are currently being developed to support teaching and learning UML [7]. **Computer Supported Collaborative Learning** (CSCL) is a framework of the approach where learning is seen as a social interaction and is being done with the use of a computer or over the use of the internet [8]. Therefore, this framework gives the ability for students to study and work on a task cooperatively, but also, at a distance. Additionally, in the last decade, many researchers have contributed to the development of computer supported collaborative learning. Several advantages of collaborative learning over individualized learning have been identified [9]. Furthermore, we will be trying to see how the quality of learning can be improved through the implementation of social interactions with our hypothesis, that through the implementation of features that facilitate social interactions, one might be able to create a better collaborative learning experience. Hence, assist students in learning. Clearly, **collaborative e-learning** can improve the quality of learning. On the other hand, it is still not clear which features a collaborative e-learning system needs to have to be most effective. As a result, we want to gain valuable insights on students' learning UML by asking the question: **How can the quality of collaborative learning be improved in an online environment for students studying software engineering at The Hague University of Applied Sciences (THUAS)?** As well as aim to gather information that would lead to the further researchers in building collaborative e-learning environment, designed for students, learning UML.

1.3 Approach of this work

This article starts with desk research. We explore the functionalities of social presence theory and how it facilitates collaborative learning. That leads us to get an understanding of how functionalities of social interactions can be implemented in an online learning platform. Also, we conduct desk research on measuring the quality of learning, which gives us an understanding of how the outcomes of the experiment, we are proposing, can be measured. Secondly, we interview lecturers of UML, since they are the experts in the field of our research. Hence UML lecturers give us valuable insights about the quality of students' learning and how to evaluate it, as well they share ideas about collaborative e-learning environments. Furthermore, we interview software engineering students to gain insights about the difficulties students face and how they cope with them while learning UML, as well as gain insights about student perception toward collaborative online learning. Finally, we propose an experimental setup which can help researchers experiment and test what ways the quality of learning UML can be improved for students and which features such a system needs to include.

2. METHODOLOGY

2.1 Desk research

In order to find out how collaborative learning can be improved, desk research on two topics is performed. The first one being on the functionalities of online social interactions and how it can be used to facilitate collaborative learning. With a better understanding about the functionalities that derive from this, these functions can be translated into how they can be used for an online learning platform. In order to do this, a clear understanding about what the differences between traditional classroom collaborative learning and online learning is needed. This is researched in the interviews and will be further discussed in Section 2.2. The desk research is conducted by looking at previous articles written about implementations and research on the social presence theory. It shows the strong and weak parts of online collaborative learning systems.

The second part of the research is focused on how the quality of learning can be effectively measured. This is then used to confirm the results gathered by the interviews and experiments. The criteria for this topic is that the measuring method can be applied to confirm the information of the quality of learning.

To evaluate the quality of learning systems, one should examine the extent of the application's capability to meet specific needs and if the quality entailed the effectiveness and suitability of the learner's needs. To do this, a top-down and bottom-up analyses can be used. In the bottom-up approach, the participants should give their feedback and opinion about the quality divided up by category. However, in contrast, the top-down approach will center around

experts. The experts share their feedback and opinion on the divided categories. In both approaches, the first step should be the development of a quality approach model. Which is then used when evaluating the platform. The evaluating criteria should be tailored to the needs of the system depending on the additional features. As stated in [10] “After evaluation performed according to both approaches, the results should be compared, and whether they should be similar, one could consider that the evaluation results are exact and valid.”

2.2 Interviews

The interviews are conducted to research the differences between traditional collaborative learning and online collaborative learning, what features social presence can bring to online collaborative learning, how the quality of learning can be improved for students working in an online environment and what problems students face while learning to use UML diagrams. For this we decided to interview two different groups. The first one being students who are studying software engineering at THUAS. The interview of this group will focus on how they learned UML language and problems they encounter while learning this, as well as how they work collaboratively and how they perceive presence in this collaborative learning environment. The second group consists of experts of the field, being teachers of software engineering at THUAS. This interview is focused on the quality of learning of the THUAS and how they uphold and improve this, how they use collaborative learning in combination with an e-learning environment, how they use or would use social interactions in the learning environment and what problems students face while learning UML.

The reason for interviewing both students and experts is that experts have insights about the teaching methods and learning curve of the students. By interviewing the students, who do not have the information the experts have available such as grades and the attendance of the students, we get insights about how they use the learning environment and perceived social presence compared to the experts. Not only will this validate the information from the experts with the method researched in Section 3.1, but this will also give note to functions that need improvement. Tables 1 and 2 describe the different sections of the interviews, what these sections focus on and what the goal is for each section.

Table 1. Student interviews, describe the different sections.

Student interview	Focus and goal
Section 1 Quality of learning	By asking if they are content with the way they learned UML language and if they encountered any problems as well as if they wished anything went differently whilst learning UML. With these questions we try to get insights about gaps in the current process of learning of the UML language.
Section 2 Collaborative learning	In the second section, the students are asked about collaborative learning. What their opinion about this is, what the effect of it is and what the most important factor of a collaborative approach is. After this, there are follow up questions about how these effects and factors translate into online collaborative learning and how they work online in a collaborative approach. With these questions we will learn about how students use collaborative learning and what important features should be used for the online learning environment according to them.
Section 3 Social interactions in the online learning environment	These questions are focused on the presence of a teacher in a learning environment and how communication with teachers as well as other students proceed. Finally questions about how important a social bond is with the participants of the collaborative learning environment are asked. This section will give insights on how students communicate with their peers and how questions and feedback are communicated, thus showing how social presence is viewed.

Table 2. Expert Interviews, describe the different sections.

Expert interview	Focus and goal
Section 1 Quality of learning	In the first section questions are asked about how THUAS upholds and improves the quality of learning at the moment and how these translate to the student learning curve.
Section 2 Collaborative learning	Here the experts are asked about their opinion on collaborative learning and how it differs to online collaborative learning, how e-learning is implemented into the school, what the most important factors of collaborative learning are and how they think these can be implemented into an online learning environment.
Section 3 Social interaction	These questions are focused on the communication differences between traditional face-to-face collaborative learning and online learning and how teachers use social interaction when they teach and work with students. These questions will result in information about the missing aspects and functions of an online learning environment.
Section 4 Learning UML collaboratively	The last section of the expert interview focuses on how the software engineering students learn UML, what kind of issues they face, what kind of platform is being used right now and what the hurdles are when assigning collaborative UML tasks to students. These questions will give insights on what an online learning platform for UML still needs to improve student collaboration further.

3. RESULTS

3.1 Desk research: Social Presence Theory

The theory that can assist computer supported collaborative learning is **Social Presence Theory**. The theory of social presence is a construct used to describe and understand how people socially interact in online learning environments [11].

Social presence theory can be a method to improve learning for students in an online learning environment. To do so we must understand what functions can be derived from this theory and implemented into an online learning method. Atienne Wenger [12] proclaims, “We are social beings... this fact is a central aspect of learning.”. This states that **learning socially** will greatly benefit learning. Social presence carries great value and importance for instructors and students alike. Students however tend to see social presence as a form of relationship you have with others. These relationships in combination with social presence tend to work better in **smaller groups** according to the experiment performed by Aimee L. Whiteside [13]. This is due to the connection formed among the members of the smaller groups as the communication was more personalized. The smaller group if compared to a larger group would be more socially active next to school hours with the use of text based messages.

In 2009 Professor D. Randy Garrison [14] created the Community of Inquiry (COI) Model. This model focuses on the creation of “deep and meaningful (collaborative-constructive) learning experiences”. The model explains the COI as the interconnection of three equal presences: Social presence, **teacher presence** and cognitive presence in relationship to the educational experience. This again supports the importance of social aspects within learning, however it also states that the presence of teachers is important. Which translates back to social presence also being beneficial to teachers.

Immediacy is also a function that is derived from social presence. Charlotte N. Gunawardena [15] shows that immediacy is a good predictor of student learning, and that students are sensitive to immediacy when it comes to learning or assignments. Gunawardena also describes that although Computer-mediated communication (CMC) is a medium that is low in non-verbal cues and social context cues, participants can create social presence by projecting their identities and building online communities.

3.2 Interview

These interviews were done to gather information about the quality of learning for the students, what problems they faced when doing UML tasks, questions based on social presence theory and social interaction roles in quality of learning. The interview was held with 3 students and 2 Experts. Teachers from within the institution who teach

students the use of UML diagrams within their courses and the student were who had to learn the use of UML diagrams within THUAS.

The interview questions were made to give insights of specific sections, one set for the students another for the experts. The answers were recorded in audio and transcribed into text. These results were further analyzed and categorized into new concepts. Insights have also been received about the moments where the students and experts gave correlating information. The following will contain information based on the results of the interviews.

3.2.1 *Quality of learning*

The first set of questions centered around the topic of quality of learning. The results of the interviews for the expert said the following about quality of learning. For the teacher teaching the course “quality of learning” means that a student will learn what they need to learn, and they do that in the most efficient way” and “it is the interactions between the teacher and students where students learn a set of goals set out by the teacher”. The criteria for a good quality of learning is that information needs to be available for the students to find. Students also need to get enough contact with teachers to help provide **clarity**.

To accomplish this, they use a lot of different tools. One example is a digital course management system that contains all the information for a related course. In order to evaluate how the course is going, they will do a survey to gain information on the satisfaction of the students. Students also hold regular discussions with the teacher to see what they know and need to learn in order to be efficient in teaching. They try to use more tooling, automated computer tests as it simplifies the grading and it also provides a more honest way of grading by switching the teacher who are grading. “We have a day where we sit together to discuss our vision and how can it be improved”. They do a lot of reviews and they also use computer tooling.

The experts also mentioned that clarity and transparency of what needs to be done can improve the quality of learning and that chaos diminishes the quality of learning as students do not know what to do. The experts rely on templates to help to keep things consistent for the students. Other things that improve the quality of learning are good professional skills like communication, integrity and being open to feedback can help achieve better results. The experts mentioned that doing things together with students makes it easy to figure out if the quality of learning is low through discussions with the students. Close connection with students helps to know if there are any issues. Students said the number one factor that allowed them to successfully learn UML diagrams and theories was doing many exercises.

3.2.2 *Collaborative learning*

When asked about collaborative learning both the experts and the students agreed that it allows the students to learn better and share more information. However, face to face collaborative working makes it easier to work together over online collaborative working. It makes easier to draw and discuss together where the social aspect is very important. Still, e-learning tools that facilitate online collaboration also have a positive effect on the students. Tools like GIT and scrumwise that help students to work together and tools that support professional skills like planning tasks. Course management systems like Blackboard facilitate online learning, but the way the information is displayed is very course related. Moreover, Blackboard is not powerful enough for today’s IT students. It lacks specific functions that make it easier to share information like programming codes. They therefore resort to use other platforms for collaborative learning such as Azure, which they use for sharing code. For online collaborative learning to work, education needs to be set up for it to ensure that information spreads better and that is where professional skills form an important factor for allowing the student to work collaboratively.

Students also stated that making proper agreements is an important factor in making online collaboration work. It gives students a chance to still work alone from home yet also work together if it is preferred or work in a group setting if they feel they need to. The teachers also stated that they force the students to work with the platform that allows them to communicate better with the teachers like by placing course information on the tool they use. They can track the progress of the course itself and the different tasks that are completed by the students. Both the students and teacher indicated that the presence of the teacher is needed and useful when learning about UML diagrams. The problems that most students face based on the interviews is that for most students UML is a very new topic. Students also mentioned that the language is too abstract and because it is so abstract, it is difficult for them to understand the problem they have to solve in order to complete the task.

Based on the interviews and desk research these are features the student and experts said or indicated they would like.

- Chance to share more information (stack overflow/Blackboard)
- Chances to receive feedback. (stack overflow/Blackboard)
- Face to face communication via Video communication. (discord, WhatsApp)
- Code sharing. (file sharing)
- Task manager. (Planner and progress checker and success evaluator.
- Multi-user working area (workspace)
- Single user area. (workspace)
- Authentication. (View or read only)
- The availability to do more task (library of example material and exercise)
- Centralized information hub (library of information related to UML modeling)
- Group texting.
- Private texting.

3.3 A proposal for an experimental setup

In order to support the findings within this research, an experiment is proposed. This experiment shows whether online social interactions can reach the same or even better results while performing UML related tasks.

The experiment is performed on groups within two different conditions and they will perform the tasks within draw.io. In condition 1 they will complete the tasks collaboratively with the use of online communication. This group will consist of three students who will work in separate locations, to prevent direct communication and this group will work with the use of communication tool such as WhatsApp or discord. The researchers should be invited to the group to a chat where the students will communicate through text, voice and/or video. The second group will perform the tasks collaboratively, with three students, in a classroom where they are not allowed to use any online communication tools.

The experiment will be divided into two rounds to counterbalance the results. The first round, Task A, will consist of two different difficulties of UML related tasks and both groups will perform these tasks. The groups will be flipped when they both have finished the first tasks. Group 1 will now be performing the experiment collaboratively in a classroom and condition 2 will perform the experiment collaboratively with the use of online communication. In the second round, all groups will complete task B. To make sure that the measurements are comparable and valid, task B should be of an equivalent difficulty to task A.

In order to find any differences within the experiment, two types of measurements will be used. Namely, efficiency (the time it took them to complete the task correctly) and the number of problems. The efficiency of each task should be measured in order to support the findings that have been reached within this research. To improve the way the groups are working collaboratively there should be a measurement which will measure the number of problems related to the task and the amount of (un)resolves problems. In order to get the best out of the application that has been used, a survey will be taken at the end of the experiment. This survey's main focus is to improve the usability of the application

4. CONCLUSION

The baseline for this research topic was that educational institutions are interested in improving the quality of learning and believe this can be done by developing and implementing different e-learning systems to be used by students. This work focused in particular on software engineering students learning to work with UML diagrams. Our research was centered around collaborative learning in a collaborative UML modeling tool and what needs to be implemented into this e-learning platform to improve the quality of learning for students learning about UML. This conclusion is based on the results found in during desk research and within the interviews, we conducted with the students and the teachers. The scope of the study centered around THUAS students who are following a course that teaches UML modeling within the institution. For this reason, we did desk research and interviewed the students and also teachers who would teach these students.

4.1 Main findings

In the interview, the experts and students stated they could improve the quality of learning for students by allowing them to share and gather information with each other. To do this in an online environment, it has to be set up to do so and developed to work with that online or blended learning setting. This will allow students to learn from other students and teachers as well and it will allow them to find errors faster and make less mistakes within their work

products or task. With the main research question being “How can the quality of collaborative learning be improved in an online environment for students studying software engineering at THUAS.”

The desk research indicated that to evaluate the quality of learning, one should examine the extent of an application’s capabilities to meet specific needs, and if the quality entailed the effectiveness and suitability of the learner’s needs. This information was confirmed in the interviews with the teachers where they design their lesson based on what a student needs to learn and focuses on what would be effective and useful towards their further development as software engineers.

There was an indication that students like having the option to choose their learning space or location. Therefore, the application should be able to allow students to work in whatever location they prefer. The research also showed that social presence theory can be a method to improve the quality of learning for students in an online learning environment. Being social beings we all learn in a social aspect like a typical classroom where there is a group of students. However, in an online setting, many social cues that would normally assist communication would be lost. For that reason, the experts stated that the course needs to be developed in a way where the sharing of information is a big aspect and that professional skill in communication and discussing can also improve the quality of learning. This also correlates with the interviews conducted with the students wherein the students said confusion, not being sure about what they need to do is a hurdle they faced while learning UML modelling. Experts also mentions that students have a hard time grasping abstract information which also leads to more confusion. So, lowering the level of confusion should be the goal of different features.

Based on the main findings, we came up with a list of features listed in Section 3.2.2. The students and experts said or indicated that these would be useful in improving the quality of learning for students learning about UML modelling. They indicated that they would like the chance to share and receive more information from each other and also a way to communicate face to face even at a distance, the experts mentioned that features that help manage the progress of their work can assist the students in understanding what they need to know and where they need to go. All students stated that the main factor in letting them learn how to use UML effectively was the different exercises they did.

4.2 Further research

The results found should be tested in the experiment setting mentioned in Section 3.3 to measure the effectiveness of different features. This should be done to analyze if the implemented features are maintaining and improving the quality of learning for the students using the e-learning platform and the platform itself. The following steps of this research is that a e-learning platform should be developed and with the implementation of the features found in the results. These features should improve the online social interactions within collaborative learning if implemented correctly by the institution. Developers can use a framework like the CSCL-framework to help make sure that the features they implement meet general e-learning standards.

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Approach by Competency in the Professional Situation - Beyond Pedagogy

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Abstract

Competence is not an abstract ability isolated from any surrounding context where it can neither be exercised nor observed, but it is considered as a potentiality to be realized or a potential action to be practiced, it must be finalized and contextualized that is, it must relate to specific and real situations. To be recognized as competent, it is not enough to have theoretical capacities such as (knowledge or know-how) in a professional situation or of a type of situation by arguing the action spring (capacity), or even of know how to adapt to an unexpected event and to argue it as a good well-being; but being recognized as a competitor requires acquiring other essential elements.

Pedagogy provides knowledge and some skills and know-how, but not experiences and expertise, while the world of work (the professional) offers experiences and expertise in parallel with new knowledge, know-how, and well-being to be.

Therefore, the skill requires, to transfer in the actual content of the professional a skill, which can be useful to respond to the work situation, and to seek the means necessary to achieve it satisfactorily. The level of competence is really reached when, in addition to being able to argue the choices and the adjustments made to adapt to the new situation, to explain the adaptation strategies to the situation he has set up for the future to the accomplishment of the work. The identification of the other competing competences necessary for the resolution of the unknown work situation until then is also expected in the argumentation of the acquired (knowledge, know-how, experiences, well-being). Evaluating a skill therefore requires the pedagogy student to build a real argument about the learning situation, but for the professional, to identify the links that the agent makes with "his knowledge, his experiences, his behavior to make and know how to be, "to know the managerial strategies put in place to transfer one's competency from one situation to another, taking into account the professional context of carrying out the work activity. We followed the exploratory methodology, studying and analyzing theoretical and practical studies and research already done on the subject, and making extracts from their results. The skills-based approach (knowledge, experience, know-how, well-being) offered by this research by the professional goes beyond that of pedagogy by adding an essential component such as (experiences and expertise) acquired during practice.

Keywords: approach by competency, pedagogy, management ,professionalisation.

1- Literature Review

The recent literature on human resource management illustrates that Taylorism is coming to an end. This is the rationale for changing ways of organizing work and for otherwise training people to produce and mobilize their competencies. In this vision, the condition for success of this change would rest on the individual; it would be his responsibility that depends on the sustainability and performance of the company and jobs. The driving force of this new organization would be the individual and his commitment to working for the company to be effective and successful. However, its involvement is largely dependent on other parameters, currently denied, in the organizations analyzed, such as the management of men (the dynamic aspects of competence) and the position to which it is assigned (the structural aspects of the competence). This approach based on core competencies is strongly linked to the leaders' mental model of what their business is, their ability to look beyond, formulate and share a vision of the desired future, and to organize to succeed. This change for the twenty-first century is also a mental change, a transformation of the representation of the world. Meignant. Alain (2000). Originally, L. Katzr has,

from the last century, proposed and distinguished three types of competency: (conceptual competency (analyze, understand, act systemically), technical competency (methods, processes, procedures, techniques of a specialty) and human competency (in intra and interpersonal relationships). These types are practical because they cut a more traditional division, which breaks down competency in (knowledge, know-how and know-how) KATZ RL Robert (1974). Philippe Carré and P. Caspar defined the competency: Competence can act and / or solve professional problems satisfactorily in a particular context, by mobilizing various capacities in an integrated way. Then carry out a comparative study of the five ways of approaching competency: (knowledge approach, know-how approach, behavioral approach and well-being, approach by knowledge, know-how and well-being, approach by cognitive competency). CARRE .PH, CASPAR .P (1999). Guy le Boterf proposes, for his part, another definition: Competence is the mobilization or activation of several knowledge, in a given situation and context, it distinguishes several types of competency: theoretical knowledge (to understand, to interpret) , procedural knowledge (knowing how to proceed), procedural know-how (knowing how to proceed, knowing how to operate), experiential know-how (knowing how to do it, knowing how to behave), Social know-how (knowing how to behave, knowing how to behave), knowing -make cognitive (know how to deal with information, know how to reason, know how to name what we do, know how to learn). BOTERF .G (2000).

In fact, the different models used in HR services today make it possible to better understand the notion of competence. It comprises, in fact, three inseparable dimensions. The first is a structural dimension related to the position occupied by the employee (it is essential in a model of the qualification of the workstation such as the Taylorian organization). The second is the dynamic dimension that depends on organization and management (it emphasizes the collective nature of the work activity, which continues to be emphasized by the management). Finally, the individual dimension, related to the degree of the individual but also to his commitment to work, what the company calls his "behavior" or "well-being". Segal. Elodie (2005). Also, the competence corresponds to the implementation by a stakeholder in situation, in a determined context, of a diversified but coordinated set of relevant resources allowing the control of the situation. Competence is to be understood as recognized action knowledge in an environment and in the context of a defined methodology. Jonnaert.Philippe, and Al (2005).

Francophone researchers recognized in the field of education have proposed some examples of definitions of competences such as: Competence is the ability to associate a precisely identified class of problems with a specific treatment program (Philippe Meirieu (1989). competence is an ability to act effectively in the face of a situation family, which can be mastered because we have both the knowledge and the ability to mobilize them wisely, in a timely manner, to identify and resolve real problems (Philippe Perrenoud 1997, University of Geneva). Competence is an integrated and functional set of knowledge, know-how, know-how and future-know-how, which allow, in the face of a category of situations, to adapt, to solve problems and to carry out projects (Mark Romainville 1998, University of Namur). Competence is a complex knowing act taking support on the effective mobilization and combination of a variety of internal and external resources within a family of situations (Jacques Tardif 2006, Université de Sherbrooke). Being competitive means being able to mobilize an integrated set of resources to solve problem situations (F.M.Gerard 2008).

Competence is a utilitarian conception of knowledge that is in fact linked to the logic of the enterprise, imported into the field of education, in connection with the evolution of the labor market (Angelique Del Rey 2010); Tozzi. Michel (2011). OIF (Organisation Internationale de Francophonie) has defined: a competence is a power to act, to succeed and to progress which allows to carry out adequately tasks, activities of professional or personal life, and which is based on an organized set of knowledge: knowledge and competencies of various domains, strategies, perceptions, attitudes, etc. OIF (2009). The Competence is: a power to act, to succeed and to progress which allows to carry out adequately tasks, activities of professional or personal life, etc. Ministry of Education and Higher Education of Quebec (2016). Jonnaert, Ph.D., said in the writings of the world of education or training on skills, it is regularly stated, from the first pages, that the notion of competence is polysemic. Competence does not yet benefit from a truly shared conceptualization. Jonnaert, Ph. (2015). Researchers from the (UNESCO Chair in Curriculum Development (CUDC) at the University of Quebec at Montreal (UQAM) speak of a notion rather than a concept of competence, it appears that skills are a source of lasting strategic advantages and that identification and skills development is a central issue in the survival and prosperity of businesses. To remain competitive or simply survive, any business needs to continually review and improve its strategies and approaches and if it is accepted that decisions are often based on the leader's distinctive competencies, then it is crucial for the leader to identify and renew his or her abilities and capacities. Articulated around two main axes: knowledge and know-how Aubret, J. & all (1993) Subsequently, researchers considered that competence "is not a state or a knowledge possessed. It is not

reduced to a knowledge or a know-how. Emphasis is placed on the notion of being-knowing and attitudes in their definition.

Individual competence has evolved thus towards a system articulated around three interdependent pillars: "knowledge, know-how and well-being". (Durand (2000) has deepened these three dimensions through the construction of his competency referential: he proposed to decline the knowledge component to know what (expertise, strategy, intuition), to know why (ability to explanation and strategic understanding) and who (partners) He breaks down practices (know-how) into technical, technological and hands-on skills, and considers the will (commitment and motivation), identity (culture) and behaviors of the individual as the dimensions related to attitudes (well-being).

In short, individual competence only makes sense in relation to a given work situation; it is contextualized, realized in action and "operational" because it is understood as the effective application of a combination of specific knowledge, action capabilities and behavior. Competence then depends on the personal characteristics of the individual, his motivation and the context in which he exercises his professional competence. It is therefore dynamic and organized around a system of interaction between the different components (knowledge, know-how, knowing how to be, knowing how to evolve, motivation, context, taking initiative and responsibility,...). The competencies are then eminently personal but the individual, who is the physical support of the competency, is not independent of his professional environment. These competencies are the combination of personal resources and environmental resources. Dupuy Alain (2008).

Indeed, Competencies only exist when the work environment recognizes them. They are inseparable from the company that implements them and have value only in relation to the company that will use and develop them. On the other hand, it is the articulation and long-term value of particular individual competencies that will define the key competencies of the business, leading to a strong and sustainable competitive advantage. Thus, the individual and collective levels are strongly linked and interdependent. Other authors speak of "transmission" of skills.

Astier. Philippe & all (2006) emphasizing the link between competence and action (competence as an ability to act) and the fact that the "product" of transmission in a work context is competence rather than knowledge. This ties in with the proposition of defining competence as "knowledge put into action", a competency that is then transferred - or transmitted - through a process of transformation, called by some "contextualization". In summary, the knowledge acquired by the individual is translated into competencies when they are implemented in a particular work situation, and then transmitted or not to the organization - through its members - through a transfer process that requires a transformation, in order to adapt these competencies to a given context. When we speak of a given context, it is a particular work situation (problem to be solved).

Therefore, competence can be defined as the ability to mobilize knowledge, experiences and expertise, know-how and skills, to network them to deal with a complex situation. It is defined less by the object on which it is focused (a profession for example) than by the nature of the activities involved in its construction and implementation (linking knowledge, identifying relevant problems, building strategies for action, negotiate compromises, etc.). Competencies express the operability of knowledge, in the exercise of complexity. Some may refer to strictly theoretical contexts, others to activities closer to professional situations; some involve the individual, others collective.

In the field of education (pedagogy), the debate about competency seems to have become richer for a few years. The ambiguity of the term is a problem that is in one word. Sometimes competency are designated as a level to be achieved in school and university curricula, sometimes they qualify a new approach to learning. In the educational world, the term competency is appeared in the 1980s because of the language policies developed by the Council of Europe. Belgium will reinforce this introduction of the term "competencies" with the "mission" decree aimed at reforming school curricula based on the acquisition of competency rather than knowledge. It was in 1990 that this concept seemed to gain international visibility and gain momentum throughout the countries of the European Union.

Thus, the competency-based approach has gradually been installed in French school and university programs following a reform movement that has been affecting the Western world in recent years. The various readings lead us to notice the importance of the term "competency" and the different interpretations that are made of them. The Fillon law defines the foundation of competence as "a set of knowledge and skills that it is essential to master to successfully complete schooling, continue training, build a personal and professional future and succeed in society."Ministry of National Education, Higher Education and Research (2014).

Namely, university pedagogy is essentially based on what can be called the knowledge approach. Teachers teach courses in which each student pours out the knowledge of his or her subject, and assess the ability of students to return this knowledge to the exams. At present, another approach is taking shape, the competency approach. This

evolution is mainly motivated by the development prospects at the university of lifelong training, and also by the requirements of professionalization of university courses.

The competency-based approach has been theorized for a long time (Delignières, 2009), but the polysemy of the term and the common sense that it carries generates quickly ambiguities and misunderstandings (Gottsmann & Delignières, 2015). Some see it as a subjugation of training to the immediate needs of companies (Boutin & Julien, 2000, Koebel, 2006), distorting the traditions of university education. Beyond that, the concept of pedagogy of competency remains poorly understood, and the ambiguous wording of "blocks of knowledge and skills" show that even at the highest level of the institution the vagueness persists. It is understandable, therefore, that this approach can lead to a better dialogue between the university and professional circles, a better readability of the diplomas for employers, and that it constitutes a support for the university in order to work in a more flexible way to training throughout life. Beyond the rewriting of models, the competency approach supposes above all a profound refoundation of university pedagogy. To break with an analytical teaching, to bet more on the exploitation than on the restitution, to favor the interdisciplinarity, to work in a logic of project. Delignières. Didier (2019). The competency -based approach is seen by François Gauer in speaking of the "competency block", he stressed that it is important to think of the "competency blocks" as a list of questions that allow the teaching teams to reflect their identity and position themselves against these competencies. If the "competency block" blocks the teams in their reflections instead of serving as a point of departure, this "block" will bring no value. Gauer. François (2018) ReNAPS'up, IDIP (2018). The competency-based approach (APC) essentially consists of defining the competency inherent in the exercise of a trade or profession and transposing them as part of the development of a training reference system. The competency-based approach aims to replace the Objective-by-Objective paradigm, which has shown its theoretical limitations and practical drifts. Tozzi. Michel (2011).

The management of competency, innovative concept, is instrumentalized and becomes an issue more and more shared - or disputed - within the company. Gilbert (2003) distinguishes the following four periods concerning competency management:

- The period of the precursors (1960s and 1970s), during which the so-called "competency management" is not yet known;
- The period of the pioneers (early 1980s) marked by enthusiasm, experiences and debates. The form of competency management becomes clearer and anchored in the relationship between training and employment. Some companies are conducting large-scale competency management experiments;
- The period of institutionalization (early 1990s). Competency management is becoming a collective bargaining issue and is taking its place within the management of human resources;
- The standardization period (from 1995) which corresponds to a broadcast general discourse on competency management and the relative stabilization of practices.

The current period seems to be characterized by the multifaceted nature of competency. Defélix.Christian & all (2007).

But, the forecast management of jobs and GPEC competency is a business project to build the future; beyond its regulatory aspect, it is a rare opportunity for companies to look into the future by managing their business and their development strategy. At the heart of HR processes, the GPEC has an influence on pay, career management, mobility, training or recruitment. It is in this way that touching all the states of the company and all the functions; it participates in the development of the organizations. Gaining competitiveness through a proactive vision of your human resources is a guarantee of longevity for your company.

(<https://www.eurecia.com/logiciel-competences/dossier/referentiel-competences>).

Lastly, the professional referential of the professions of teaching and education defines the Competencies Framework: it develops gradually in a process integrating theoretical knowledge and practical knowledge strongly articulated to each other.

The European Parliament's recommendation 2006/962 / EC has defined it: a set of knowledge, skills and attitudes appropriate to the context. Each competency involves the one who implements it "critical thinking, creativity, initiative, problem solving, risk assessment, decision-making and constructive management of feelings. The competency inherent in the exercise of the profession are already defined and should be transposed in the context of the development of a training reference or curriculum that is expressed through a curriculum. PABA. J- F (2017).

2. Research objectives and problematic

2.1. Research objectives

The main objective of this research is to highlight the concepts of Approach by competency in the professional situation- Beyond pedagogy.

The sub-objectives are such:

1. Introduce the approach by competency to address this topic,
2. Illuminate applied models of several approaches,
3. Propose a New Practical Model for Approach by competency in the professional situation-Beyond pedagogy

2.2. The problematic

The research addresses the following issues and problematics:

- What are the successful models in applying the Approach by competency in pedagogy and the professional situation.
- What is the impact of the Approach by competency in the professional situation an pedagogy?
- How to develop and implement a practical model of Approach by competency in the professional situation beyond pedagogy in Europe?

3. Methodology of research

To complete this research, we followed the exploratory, comparative and qualitative methodology, studying and analyzing theoretical and practical studies and research already done on the subject, and making extracts from their results; in order to approach the subject and add a scientific contribution to this field. The researches mentioned and analyzed are very rich by their content (concepts and models), which has oriented and enriched this research.

4. The theoretical framework

The theoretical framework based on the objectives, the problematic of research schematizes as the following:

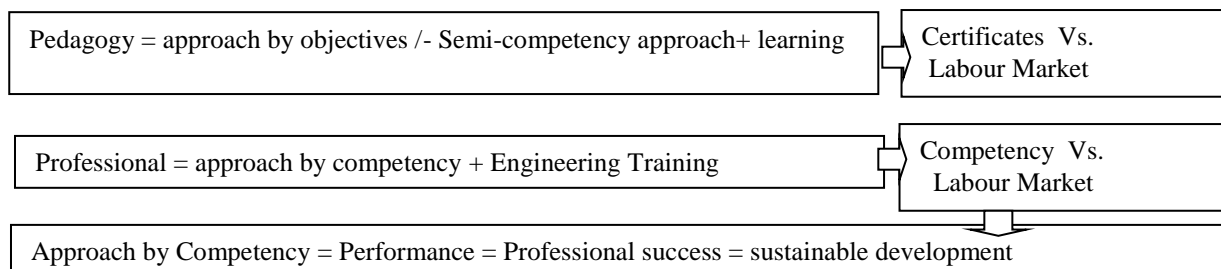


Figure 1. shows the theoretical framework

5. The approach of competency, Why?

The school prepares its students for a society that is constantly changing, more and more complex, to a job market more and more demanding. To do this, it seeks to ensure that each student acquires the essential competency that they need to adapt to the different circumstances of their professional and personal life. Time spent in school is not enough to acquire all the knowledge people need to live and work. It therefore seems necessary to rethink the school and to change the work of teachers towards a more pragmatic training; a teaching rooted in reality, providing students with the necessary tools to make them autonomous in their ability to learn all the time, their life. The teaching act becomes more and more complex because it requires the achievement of many of the program objectives in time: Expected Competencies, Own Competences, Methodological and Social competency, competency Common Base. It then becomes simpler to compartmentalize its teaching by working on a single element over a defined time and space: "today, we will work on a competence of the pedestal ... tomorrow, we will work on a methodological and social competence and the day after tomorrow, we will will work the expected

competence in the activity ... ".MOREAU. Sylvain (2012). All of this requires key competencies to justify the competency -based approach!

The challenge was to renovate the service offering in order to target the mastery of fundamental competency for a professional integration project. This term of competence introduced beyond the notion of knowledge that of behaviors developed "in situation" and transferable. A skill is acquired in action. The Boterf. Guy (2019).

On the pedagogical level, it appeared necessary to initiate some changes to enter the competence gate: for example to take into account the acquired experience of the learners, to set up global and collective situations related to the world of work, make explicit the capacities developed, formalize them in terms of competency.

In this respect, the Professional Competence Framework (RCCSP) has taken a step in this direction. However, it remains difficult to translate into objective OT training terms, that they remain relatively poor. The OT have more or less launched into this approach, demanding a new and consistent pedagogical engineering. On the one hand, it was a question of translating objectives no longer exclusively in terms of knowledge and applying objective pedagogy so consistent with the strong command of individualization, but in terms of capacities related to concrete situations. On the other hand, this may alternates with the learning moments of knowledge, to set up other modalities allowing confrontations with transversal and interdisciplinary situations. These group sessions preferably can constitute privileged sessions to develop the famous key competences provided they include a final phase of taking back, balance sheet: the famous "learn to learn". Aquitaine Guide (2014).

6. The Difference Between Capacity and Competency

There is a difference between Capacity and competency. The table below explains the differences:

Table 1. Differences between Capacity and competency

Table 1. Differences between ability and competence

Capacity	competency
Based on the results	Based on individual behavior
Describes the functionality of the job	Describes the trait of the person
Consists of the various skills and knowledge required to perform a job	Mainly consists of a person's basic characteristics that result in superior performance on a job
Measured by work performance / effectiveness	Measured in terms of behavior / attitude
Are specifically process oriented.	Are generally results-oriented.
Are not transferable because each competency is more specific to perform the job	Are transferable from one person to another

Source. Prasanthi. S (2015)

6.1. The link between competency-based management and organizational management:

Competency Based Management (CBM) solutions generally provide information and guide all aspects of employee career development. They enable organizations to improve productivity in most areas of human capital management. CBM is generally referred to as "strategic" in that it attempts to link organizational planning to the execution of work: (Strategic Human Resource Planning, Competency Architecture, Competency Framework, Competency-Based Recruitment, Learning Based on competency, competency-based performance management, skills-based career development).

6.2. The role of management based on CBM

The role of CBM is to shape and guide the behavior of employees from "hiring to retirement". It helps talent acquisition, performance management and learning management systems to be more effective by assessing the skills and competencies of employees. It also facilitates the discovery of gaps and suggests learning methods (on-the-job, theoretical, or formal courses) to help improve employee effectiveness. A management methodology that normalizes and integrates all HR activities based on competency that support the organization's objectives. In increasingly green organizations, HR professionals often have a hard time understanding their organization's performance capability,

developing a plan to match organizational capacity to mission, engage and retain the right people and maintain the organization's ability to function over time.

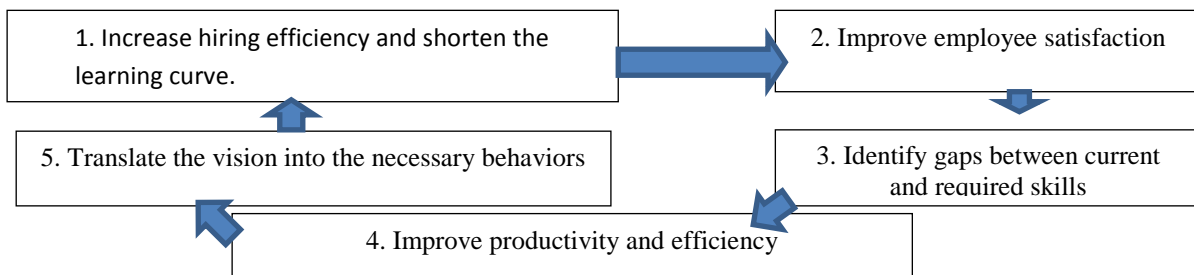


Figure 2. Displays the role of competency-based management
Source Prasanthi. S (2015), (adapted by researcher).

Thus, competency-based human resource management plays a key role in: (Understand and define the necessary and available talents, Solve competency deficiencies, Combine available talents with performance needs, Associate the right people with the right skills to good jobs, everyone is essential to align organizational capabilities with organizational mission). Prasanthi.S (2015).

7. Elements of the competency-based approach

Through competency, we can internally and externally mobilize internal and external resources to accomplish a certain type of task in a complex and new situation in an activity. This incorporates several elements as illustrated in this table:

Table.2. Elements of the competency-based approach

No	Elements
1	A competency is not innate but learned by training, it is the result of a process of acquisition, learning that takes time.
2	- Competence does not oppose knowledge, since it supposes the mobilization of knowledge, it takes knowledge seriously.
3	- Competence is accomplished in action (knowing how to act), and this distinguishes it from knowledge or skills, it links knowledge to power that it gives mobilization in action, knowledge, procedures, process.
4	- The competency-based approach may appear as more ambitious than the simple transmission of knowledge, it is necessary to mobilize wisely and at the right time, there is a suitability of such resource in relation to such task.
5	- The competency - based approach mobilizes in combination and synergy several internal resources (knowledge, know - how, personal skills, personal experiences, ability competency) and external resources (others' experiences, references, tools, internet...).
6	- The competency-based approach is not a goal in the pedagogical sense, but it always summons a complex task that gives meaning and purpose, and helps to reduce or prevent failure.

Source .Michel Tozzi (2011), (adapted by researcher).

8. Competency approach between (Francophones and Anglo-Saxons)

Until the early 1990s, the notion of "Competency management" was rarely used in France (Bouteiller and Gilbert, 2005). Some researchers distinguish French and American approaches to Competency management. Dominique and

Gilbert. Patrick (2005). Other researchers broaden American conceptualization to the Anglo-Saxon world. Thus, they compare the French way of thinking to that of the Anglo-Saxon countries. Defélix .Christian (2005).

8.1. The Francophone approach to the notion of competence applied to HRM is based on the definition that distinguishes (knowledge, know-how, and well-being). The popularity of this definition is probably linked to the fact that it was chosen by the ROME (directory of trades and jobs) developed in the 1980s on the initiative of the Ministry of Labor and which serves, among other things, to reference for the ANPE (National Agency for Employment) .Tremblay. Michel & all (1999).

Although it does not escape criticism both semantically and conceptually, the trilogy "knowledge, know-how, and well-being" is very frequently used by companies to build their referential/repository of trades. These three dimensions, classic in the sciences of education and commonly used in the methods of forecasting, are attributed to Pestalozzi (1797) who speaks of: (head, hard and heart). BECUWE. Audrey (2008).

8.2. The English approach is based on (Competency Creates a Win-Win Environment), in a competency-based CBS system, the benefits of both the employer and the employee. This results from the establishment of a transparent plan for recruitment, employment expectations, performance evaluation and progression pathways. Personal judgment and subjectivity are minimized, creating a more positive work environment and a stronger relationship between employee and employer.

Byham says the competency-based human resources system has four advantages:

1. Reduced communication, training and administration time. Managers must learn a single set of competency and definitions for each position. The installation of each new subsystem or program requires less training time because the competencies are well understood and the main concepts, such as behavioral focus and behavioral competency organization, are systematically used.

2. The subsystems validate each other. Information from different sources can be compared. Data from one component can be used to validate the effectiveness of others. Performance evaluation notes can easily be used to validate the effectiveness of a selection or training subsystem.

3. Subsystems reinforce each other. The use of one subsystem supports and enhances the use of others. The successful use of definitions and scoring scales in a subsystem reminds managers of the importance of using them in other activities. The successful use of a competency-based performance management system would strengthen the use of a competency-based selection system.

4. The whole system and each subsystem can be validated using a content-oriented validation strategy (in other words, the subsystem can be associated with defined work requirements). Byham. William C. (2002).

- Benefits of a competency -based system for employers and employees

This chart shows the benefits of CBS for employers and employees, such as:

Table 3. The benefits of CBS for employers and employees

Benefits for employers	Benefits for employees
<ul style="list-style-type: none"> - Ensure that training and professional development activities funded by the organization are cost-effective, goal-oriented and productive. - Allows employees to reach a high level of competence effectively. - Records the employee's acquisition of competency, knowledge, security and other procedures related to each task. - Reduces cost overruns caused by poor performance or poor communication of work expectations. - Improves communication between employees and management. - Increases internal mobility of employees, providing the organization with greater capacity and flexibility as needed. - Establishes a framework for management to provide constructive feedback at regular intervals of training and performance evaluation. - Clarifies employment standards for performance evaluations. - describes the development and promotion paths of employees within the organization. 	<ul style="list-style-type: none"> - Defines clear performance expectations for employees, enabling them to make better decisions and work more effectively. - Gives employees insight into their team's overall strategy, service and organization, leading to increased commitment and motivation. - Allows employees to be more proactive beyond their individual roles, by acquiring additional competency that are valued by the organization. - Provides a clear direction for the acquisition of new professional competency. - Provides a reference resource for everyday needs. - Increases the potential for job satisfaction - Provides a mechanism for recognizing the abilities of employees. - ensures that the key stages of professional development and training are recorded and recognized by the organization.

Source. Byham. William C. (2002)

9. Models of competency-based approaches (APCs)

If the competency model has gradually been institutionalized by giving rise to stabilized instruments in a wide variety of practices (recruitment, training, job management planning, individualized career management, etc.) in terms of remuneration and HRM, the management competency is still a space for experimentation. Despite the publication of many good practices, there is no proven rule in this area. The competence model is based on a simple principle: it is no longer a matter of valuing jobs, but of evaluating and valuing the competency held by employees. However, the implementation of this principle gives rise to very wide variety of practices. Moreover, the different devices do not appear stable over time. The rules of remuneration and HRM evolve and the logic of competence takes forms that may deviate from the model initially displayed. The logic competence has indeed spread in an economic context that encourages companies to control the evolution of their payroll. Some companies therefore limit the recognition of employees' skills. Unable to provide the training or promotions expected, they back the deadlines causing a queuing system. Competence is a constituent element of performance, but it is not performance. This is not only related to the competency level of each individual: it depends very much on how the teams manage to coordinate themselves and on factors external to the person allowing him to correctly implement his competency .Aubret. J & all (2002).

The ability to use acquired competency and create a work environment that allows them to be exploited poses the eternal problem of transferring competency to activity and creating value (Tremblay et al, 1999). Therefore evaluated in a more or less subjective way by the supervision of proximity. It is generally said that the competency is (observable) but not (verifiable). This poses problems for the employees, on the one hand, and for the management, on the other hand because of the decentralized management on which it is based, the competence logic offers to the employees more possibilities of play and introduces spaces negotiation. Lene. Alexandre (2005).

9.1. Three Model approaches by competency

Briscoe and Hall (1999) argue that existing competency approaches could be categorized into three approaches (a research-based approach, a strategy-based approach, a values-based approach).

Table.4 Three Model approaches by competency

Approach	Description
1. The research-based approach	Is based on behavioral research. The leaders appoint senior executives considered as the best performers.
2. The competency approach based on the strategy	Place the strategic direction of the organization at the center of the process. As a result, future directions are more important in this case.
3. The values-based approach.	If the competency are based on the cultural values of the organization.

Source. Briscoe, J. P., Hall, D. T. (1999) , (adapted by researcher).

9.2. Competency Leadership Model

Fulmer and Conger (2004) provide an excellent summary of the benefits of using competency leadership models. They support the benefits of this models:

Table.5. Competency Leadership Model

The benefits of using competency leadership Model	
Communicate clear expectations for roles and levels of performance;	Provide more valid planning data;
Link development activities to objectives;	Provide guidelines for development;
Protect people's morale	Quantify performance management;
Streamline human resource activities	Provide a common framework
Communicate leadership development strategies.	

Source. Fulmer, R. and Conger, J. (2004), (adapted by researcher).

As far as limitations are concerned, applying competency management to executive performance is not the way to train leaders. The competency are ambiguous. Different people could translate their definitions in different ways. MURATBEKOVA-Touron. Maral, BESSEYRE OF HORTS. Charles-Henri (2008).

9.3. Competency-based management model CBM strategy

Competence management systems are based on different models and approaches from different countries. (Aubret et al., 2005). The widely accepted definition of the competency model used by officials in Anglo-Saxon countries is the set of desired competencies (underlying competency, knowledge, attitudes, characteristics or behaviors) that differentiate successful and inefficient individuals. McLagan, P. (1996). The link between competency and performance is very important. In general, the competency models concern the leading population of Anglo-Saxon countries. In France, the target groups are employees of technical activities (Aubret & all 2005).

The debates in the French context concern changes in the organization of work: management by competency versus classification (Zarifian, 1988). Thus, while the Anglo-Saxon world produces models of "behavioral" competency for senior and middle managers, French human resources specialists generate specific "knowledge" and "know-how" for technicians and operators (Aubret et al., 2005); MURATBEKOVA-Touron. Maral, Charles-Henri BESSEYRE OF HORTS (2008). Competency based management (CBM) solutions generally provide information and guide all aspects of employee career development. This allows organizations to improve productivity in most areas of human capital management. CBM is generally referred to as "strategic" in that it attempts to link organizational planning to the execution of tasks, such as:

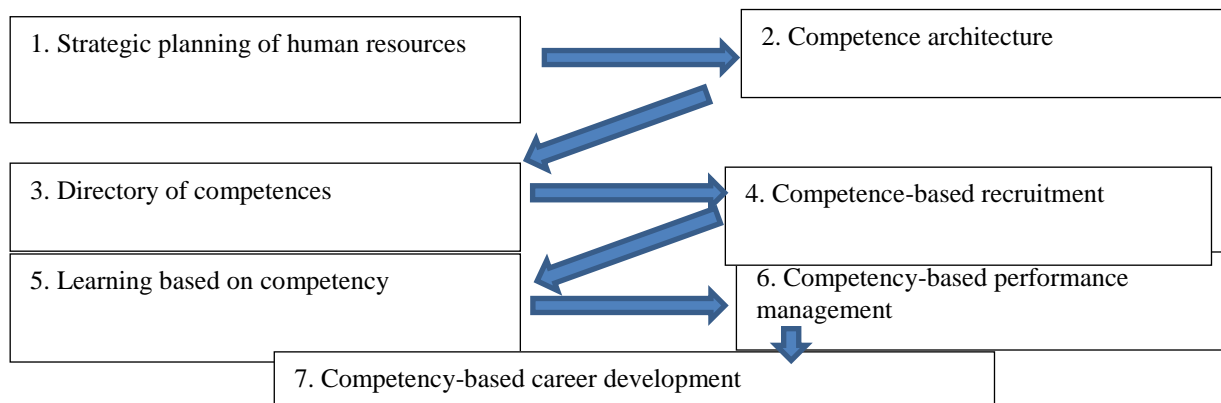


Figure 3. Competency-based approach based on CBM strategy
 Source. (Aubret et al., 2005), (adapté par le chercheur).

9.4. Competency Approach model VS Pedagogy by Objectives

As J.-M. De Ketele reminded us, a "theory of approach remains to be constructed" as "theory of complex learning". In the meantime, "situated" programs of study are expected to continue in order to demonstrate their effectiveness. Monchatre. Sylvie (2008). The differences between approach by approach and pedagogy by objectives illustrate completely different logics during the transition to the professional as shown in the following table.

Table.6. Approaches by competences Model Vs pedagogy by objectives

approach by Competency	Pedagogy by objectives
<ul style="list-style-type: none"> - Focused on the situation. - Focused on the actions of the learner. - Contextualization. -Sense of learning. - Plurality of mobilized resources (intelligence distributed). - Output profiles by situation classes to be dealt with competently. -Plurality of paradigms (constructivist, behaviorist, etc.). 	<ul style="list-style-type: none"> - Entry by the contents. - Focus on the transmission by the teacher. - Decontextualization. - Content in the center Cognitive resources. - Disciplinary content. - Reference to behavioral theories (Bloom, Skinner).

Source. Jonnaert. Colloque ORE Montréal, avril 2007.

10. The results:

10.1. The competency-based approach - from pedagogy to professional management

P. Zarifian announced in 1988 the advent of a "model" of competence, breaking with the notion of qualification, supposed to found new ways of managing the workforce and covering an articulated set of discourses, practices, Management Tools.

According to him, the management of competency is not only an instrument, it is a process whose boundaries, dynamics and unexpected effects must be clarified each time »ZARIFIAN. Ph. (2006). Competency management has gone beyond pedagogy and its concepts, methods and educational models; it is presented as a way of articulating the personal development concerns and flexibility requirements of the organization; it is therefore logical to expect a certain "effect" of the management competence on the professional trajectories of the persons concerned.

10.2. The competency approach

The competency approach is now part of the daily landscape of HRM in a increasing number of companies. It has indeed become commonplace to say that simple possession an initial pedagogical qualification by employees no longer gives companies the means to ensure their competitiveness. They must now receive the guarantee that once in the situation, employees will be able to mobilize a series of knowledge necessary for the quality of their services, especially in the face of unforeseen circumstances and in critical situations. PICHAULT. François (2008). The

authors (Retour, 2005, Retour et Rapiiau, 2006) distinguish four standard categories of competency management at the professional level:

- **The use of competency** that aims to strengthen the involvement of individuals in the work through the very conception of the organization, the existence of indicators to monitor the volume of the activity or through a pressure managerial persistence. The competency held by individuals are identified through the tools and methods of competency management, but there are few career prospects and forms of recognition are kept to a minimum.

- **Assignment of competency**: the HRM system uses the knowledge it has acquired competency among its employees to distribute them more appropriately in the tasks for which they are best prepared.

- **The development of competency**: it consists in developing the resources available. The company seeks to facilitate developments and professional developments in the acceptance of counterparts to efforts made by employees.

- **The competency approach**. It is only at this level that one can, according to the authors, really speak of "competency approach". Here, it is a style of management by which the company articulates its choices of evolution with the development of its employees and the induced transformation of its organization of the work. This dynamic is manifested by new forms of work organization and career development prospects.

Retour, D. (2005). New perspectives on the competence approach management, Paris, Vuibert, 2006.

Retour (2005) invites us to analyze competency approaches from several angles. First, the competence approach can be differentiated into required. The competence approach, mobilized, owned and potential as shown next table.

Table.7. The four differentiated competencies

- Required The competence approach are required of an individual to fulfill a mission.	- The The competence approach held are acquired by the individual and he does not mobilize them necessarily in the framework of his mission.
- The The competence approach mobilized refer to those actually implemented.	- Potentials are The competence approach not yet proven.

Source. Retour (2005)

To complete his analysis, the author proposes to distinguish four relevant levels for analyzing competence:

- the individual: in this case, we speak of individual competency;
- the group, this is the collective competency;
- the enterprise, which the author refers to here as the concept of organizational competency;
- the environment in which it is located: the author speaks of environmental or territorial competency.

So, a grid representing these cases, and these criteria presents the competency approach.

It is possible to distinguish four cases (adaptation, optimization, structuring and dynamization of the competence approach).

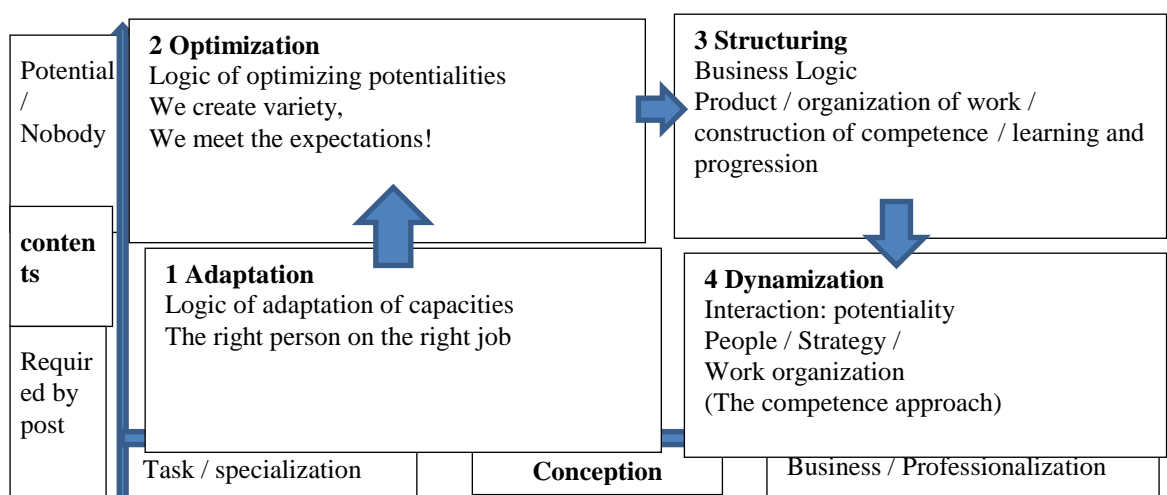


Figure.4. Reading grid of the competency

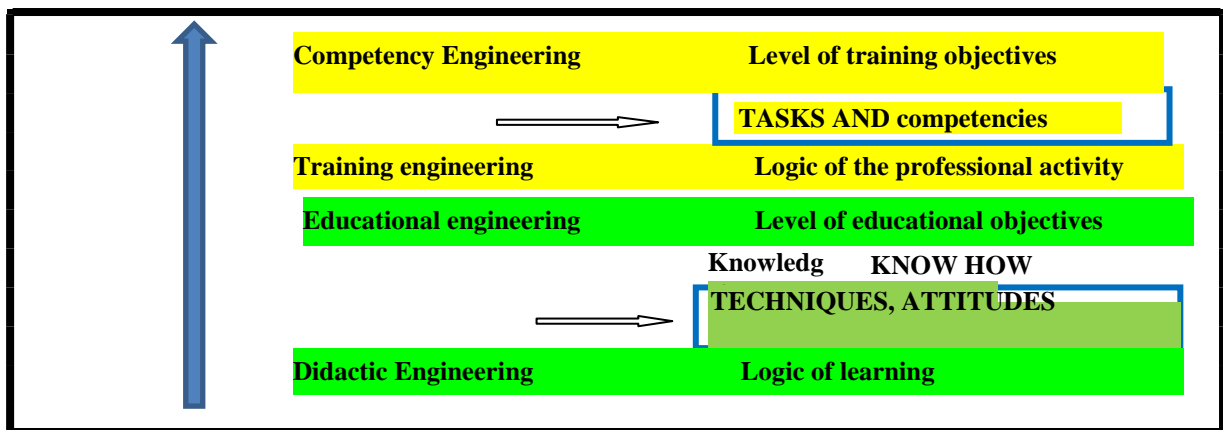
Source. HENRIET. Bruno et all (2008)

10.3. Engineering of the competency approach between (French and English)

The two criteria (content and design), which concern the purpose of the process, can be enriched by criteria related to processes: what are the actors, stages and devices of this approach? This makes it possible to pose the problem of the articulation of the approach with other HRM systems and its integration into the management processes of the company. HENRIET. Bruno & all (2008).

According to Aurore Barrot (French-speaking approach), the transition from the skills of pedagogy to the management of competency in the professional, this is to be placed in the chain of levels of engineering training, as shown in his diagram below:

Schema .1. The 4 levels of training engineering



Source . Barro. Aurore, et all (2017).

DDI has created a holistic vision of success (Success Profile Model / Anglophone Approach) including and developing competency as traditionally defined, as shown in the figure below.



Figure 5. Modèle profil de réussite

The success profile distinguishes four important and distinct elements of success, which creates a powerful framework for selection decisions. This separation allows HR to give personal provisions and motivations - which are difficult to develop - extra attention when considering candidates for a position. The competency component defines specific behaviours and abilities that must be competently demonstrated to succeed. DDI (2015).

10.4. The Deloitte approach: competency based on work experience

According to a recent Deloitte study, on trends in 2019 RH was conducted in Switzerland, but what it reveals is universal, the lifespan of a competency has increased from 30 years to 5 years. Things have changed and work even more than the rest. This transformation is not ready to end because in the mess-all digital, competency are not what they were. Those that were acquired at school or during those first years of work? Deloitte presents his approach as the following:

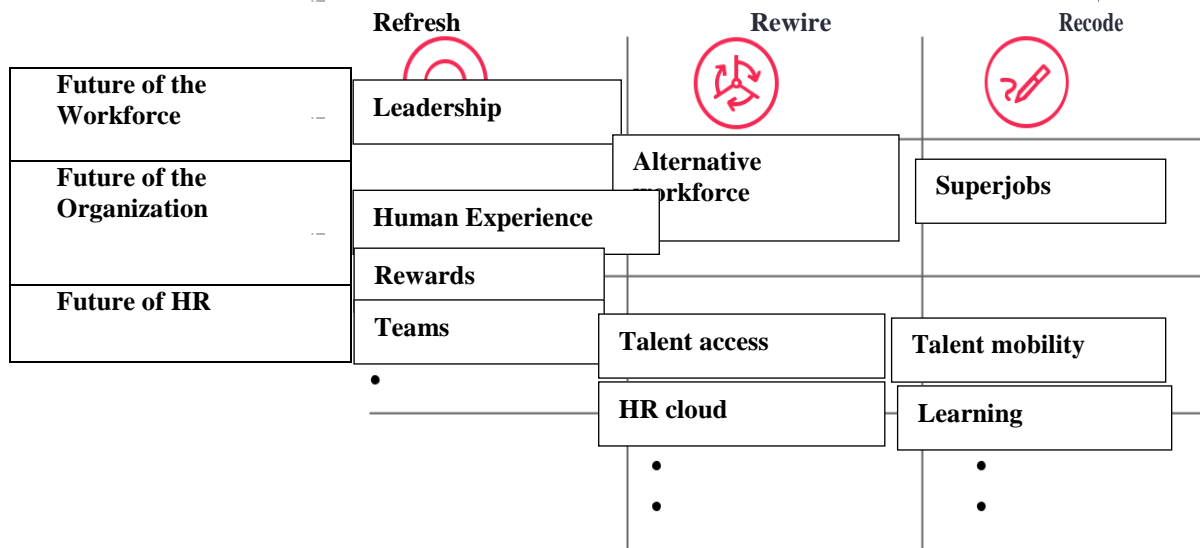


Figure .6. Three domains for reinvention, three approaches to change

Deloitte has developed its approach at the professional level :(When experience is bottom-up & personal, it becomes focused on "human experience").

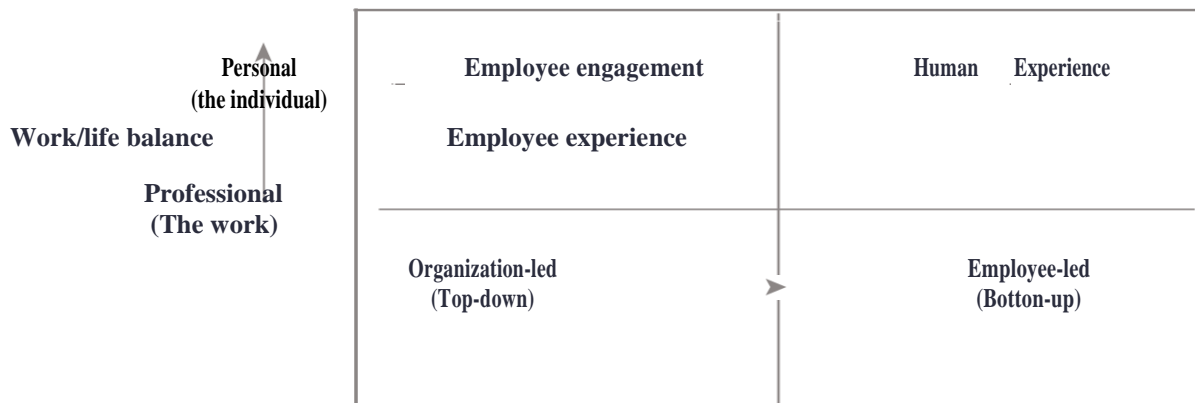


Figure .7. Experience from bottom-up & personal, to “human experience”
Source: Deloitte Insights contributors (2019), Deloitte analysis..

10.5. Block competency approach in the professional:

Workplace human competency accumulate in the main occupational categories such as: (knowledge, experiences, know-how, well-being). The components of this competency block are represented by a rectangular element called block competency, which has four built-in parts, as shown below.

Table.8. block competency component

<p>1. Part knowledge: It includes (concepts, ideas, theoretical bases and scientific principles of any field of specialization). It can acquire through the use of traditional educational methods, such as lectures, presentations, etc.</p>	<p>2- Part experiences: This includes (personal experiences of the same person or experiences from the practices of others). He can acquire by practice and draw the self-test.</p>
<p>3- Know-how/ Skills part: It includes (methodologies, techniques, working methods and tools used in the field of employment). It learns through the use of knowledge and experience in the actual situation, and in fact an operational technique, or a working tool.</p>	<p>4- Part Well-Being: It includes (trends, attitudes, ethics and relationships maintained by the person with the other during the professional practice). Such skills are acquired, but appropriate educational and social conditions facilitate awareness of the importance of workplace behavior.</p>

Source: Meri .Mohammed (2009).

10.6. Proposed practical model for building approach by competency

This proposed model shows how to formulate and develop the competency of trades and professions and professionalism by using the competency management reference system, such as:

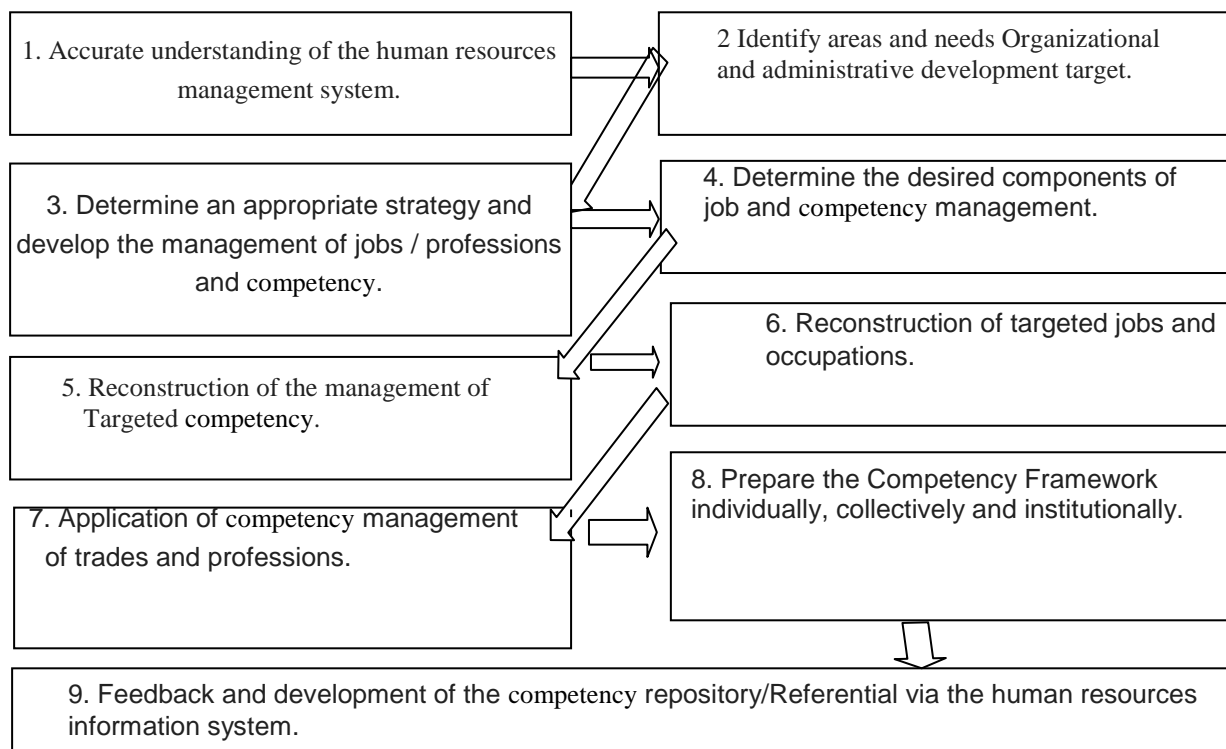


Figure .8 Proposed Practical Model

Conclusion

There is not a single model approaching competency in the professional; and the pedagogical approach has been surpassed. In the professional; knowledge acquisitions; knowing how to do it and knowing how to be are not enough; they require the acquisition of experiences generated from real practices; these achievements formulate the competency block in the professional; who interact and integrate to complete such a task and job. The practical model proposed is a scientific contribution going in this way to build well the competency block and the repository/Referential of trades and competency in the professional world.

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An Evaluation of the 2023 Education Vision Document in Turkey from the Perspective of Foreign Language Education

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Abstract

As a concept, vision is generally used in the field of management science and it is defined as foreseeing the future and the point desired to be reached in the future. Vision which is also termed as the picture of the future is used by many institutions. One of these institutions is the Ministry of Education. The Ministry of Education is known to be the top institution in Turkey. When the 2023 Education Vision of the Ministry of Education is considered within this framework, it is regarded as an important document. Studies needed to be conducted in many fields of education were mentioned in this document. One of this fields relates to foreign language education. The aim of this study is to conduct an overall evaluation of the 2023 Education Vision in Turkey in terms of foreign language education. To this end, relevant studies and legal texts were examined. Content analysis was performed on the data in the survey in which document analysis method was used. As a result of the study, adapting foreign language education across Turkey to proficiency level and types of school, ensuring that students experience the world in which English is spoken and studies envisaged being conducted by the Ministry of Education for increasing teacher qualifications and competencies were evaluated.

Key Words: Turkey, vision, 2023 education vision, foreign language

1. INTRODUCTION

The survival and success of a system is possible by foreseeing the future and making the necessary preparations for the future. Therefore, a vision is important for systems to develop. Foreseeing the future and making preparations for the future are a responsibility regarding the management of systems. Due to this responsibility, managing bodies in systems try to foresee and even design the future of systems. Therefore, it can be said that the success of a system depends on the predictive success of its managing body. The more accurately the managing body of a system foresees and designs the future, the more successful a system is. This indicates the management's ability to create a vision (Ertürk, 2020).

There are a number of definitions of the word vision. Vision literally means seeing, sight, foresight, intuition and imagination (Redhouse, 1998; 531 -532). According to Kotter (1990, 68), a vision is the picture of the future and it is the explanations of why an organization tries to create such a future. According to Heintzel (1995, 115), a vision is a concrete picture of the future. The realization of a vision is as close as to be seen, but it is as far as to evoke admiration of a new structuring. A vision can be considered in particular as the principal's putting forward concretely the place and condition which the school is expected to achieve in the future and it can be considered in general as the principal's putting forward concretely the place and condition which the community is expected to achieve in the future (Şişman, 2002; 143).

The necessity and importance of a vision have to do with whether or not an institution will exist in the future. According to Kouzes and Posner (2012), no organization which desires to change and develop wants to fall behind. Because of this, any organization wants to look to and foresee the future. The presence of a vision is an important step to determine an educational policy for an educational institution as well as for all institutions. According to Mingat and Tan (2003), a vision and sharing and supporting that vision are needed in order to determine an educational policy. Those who will determine an education policy have to do this. When regarded in this context, a vision is needed to be put forward in the field of education and supported by all stakeholders in order to determine an educational policy for the Turkish Education System. From this point of view, putting forward the 2023 Education Vision document is an important and necessary step for the Turkish Education System.

2. Foreign Language Education in Turkey

Foreign language education within the Turkish education system has been included in different school curricula in different times up to the present and it has been used in various activities. Although the obligation of foreign language education comes up at every school level today, this is considered within the framework of general market especially in higher education institutions. Foreign language education generally comes up at secondary school level in Turkey (Demirel, 2012; Özkan, Karataş&Gülşen, 2016).

Foreign language courses are among compulsory common courses in our primary and secondary education institutions. The aim of foreign language teaching is to enable students to use a foreign language in accordance with their level. To this end, curricula, student's book, teacher's book and educational tools are constantly being improved in a way that they constitute integrity. In accordance with the Eight Year Compulsory Education implemented in the 1997-1998 school year, weekly course schedules were rearranged and foreign language course was compulsorily put in the fourth and fifth grades for two hours a week. Foreign language course is offered in the fifth, seventh and eighth grades for four hours a week. In this context, second foreign language education is included in the weekly course schedule from the sixth grade on in primary education. Also, the inclusion of a second foreign language in compulsory courses in Anatolian Teachers' High Schools was accepted and implemented by the National Ministry of Education. A second foreign language was made elective in general high schools and compulsory in foreign language high schools in the 2005-2006 academic year (Arıbaş ve Tok, 2008; Karakuş, 2011).

3. Foreign Language Education of the 2023 Education Vision Document in Turkey

The 2023 Education Vision Document has been prepared for the purpose of determining the goals which will carry our country's education to 2023 and of achieving these goals in line with a certain calendar. Three main goals have been determined within the context of language education policies in the Vision document. The first goal: foreign language education across the country will be adapted in accordance with proficiency level and school types. The following sub goals are included in this goal: a) conducting foreign language education as student-centered and by methods in accordance with students' cognitive level, b) Enabling students to carry their foreign language use to different fields by ensuring the integration of courses such Mathematics, Science, Social Studies and Visual Arts into foreign language education by an interdisciplinary approach, c) Rearranging foreign language skills and needs by different types of school and curriculum, d) Giving up implementation of uniform curriculum across the country, e) Rearranging foreign language courses as compulsory and elective in line with needs, f) Making arrangements for the flexibility of foreign language course hours and earning productions such as cartoons and animations in the foreign language or with subtitles by cooperating with the TRT (MEB, 2018).

The second goal aims to enable students to experience the English-speaking world with new resources. The sub goals under this goal are the following: a) Preparing digital environments which enable students to follow native English, French and German teachers to access to the foreign language and to participate in online writing and discussion activities, b) Providing digital content from national and international publishers to develop the digital content pool in the Education Information Network and preparing the digital content to be designed in the context of themes in a way to develop the listening, speaking, reading and writing, which are the four skills of language, c) Designing different content, methods and techniques by education levels, d) Benefiting from interactive games and stories with video games, songs, interactive activities in the process of foreign language education in primary school

fourth grades, e) Benefiting from online story books which are classified by levels in middle school 5-8th grades by taking into account students' individual needs, f) Doing writing activities and vocabulary practice, g) Preparing content to develop students' speaking, listening, reading and writing skills in secondary level 9-12th grades by taking into account the priorities of the school type students study (MEB, 2018).

Increasing teacher qualifications and competencies is included in the third goal of the 2023 Vision document. It is aimed to achieve the following sub goals under this goal: a) Enabling all foreign language teachers to participate online or face to face in education programs such as master of arts, international certification and themed certification in the next three years in cooperation with international institutions, higher education institutions and non-governmental organizations, b) Offering foreign language teachers online or face to face education by native English teachers within the scope of lifelong learning, c) Ensuring that teachers have the knowledge of the field and improving access to digital sources, d) Sending foreign language teachers to abroad teacher education certificate programs for training on summer vacations, e) Establishing a foreign language education council at a national level who will determine language education policies, language teaching standards, in-class practices and teacher competencies to increase the quality of foreign language education and f) Establishing a central examinations commission and an educational materials commission (MEB, 2018).

4. Conclusion

As the management, the National Ministry of Education is also conducting planning for the future based on some predictions as all organizations do. These predictions of the National Ministry of Education emerge based on needs analysis for the future. The 2023 Education Vision Document of the National Ministry of Education has been prepared based on this needs analysis. Needs analysis has been conducted due to not only local needs but also international requirements.

One of the important parts of this vision document prepared by the National Ministry of Education is about foreign language education. Three goals are envisaged about foreign language education in the vision document. The first of these is the adaptation of foreign language education across the country by proficiency level and types of school. The regional differences of the country are taken into account in line with this goal and it is aimed to make the program suitable for the needs of the regions. Additionally, cognitively different students are taken into account and it is envisaged that appropriate methods should be used. This is important for student centered education. Also, interdisciplinary handling of foreign language education is among the important goals.

The second goal about foreign language education in the vision document is to enable students to experience English speaking world with new resources. With this goal, it is envisaged that not only foreign language education should be conducted theoretically, but also students should learn a foreign language by experiencing it. Many activities and materials have been considered for this such as preparation of discussion environments and digital resources, games and online stories.

As the third goal of foreign language education in the vision document, it is aimed to enhance teacher qualifications and competencies which are the most important components of the system. A series of sub goals have been set such as teachers' working with native English teachers, organization of travels abroad for certificate programs on summer vacations in order to achieve this goal.

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An Overall Evaluation of the Use of the Drama Method in Foreign Language Lessons

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Abstract

Changes in society affect an educational institution deeply as well as all institutions. As distinct from the past, one of the most significant changes in education is experienced in the understanding of teacher-centered education, one of the most characteristic features of traditional education. Today teacher-centered education has been replaced by learner-centered education. This is also experienced in foreign language teaching and methods and approaches of foreign language teaching are changing. As all over the world, foreign language education in Turkey is evolving from an understanding of teacher-centered grammar-translation with a rote character into an understanding of contemporary learner-centered approach in which the teacher has a role of guidance and communication becomes important rather than grammatical structures. The learner's experiencing the activity of learning on his own and his learning by discovering has become more important. One of the teaching methods to be used for this is the drama method. This study aims at conducting an overall evaluation of the use of the drama method in foreign language lessons. To this end, first review of literature was done. Articles, dissertations and books which were found to suitable for the purpose of the study were examined by descriptive analysis method. As a result of the study, benefits of using the drama method in foreign language lessons were revealed such as developing the skill of listening effectively and carefully, increasing one's self-confidence, enhancing comprehension and creativity, allowing for practicing the language and improving fluent speaking.

Keywords: Drama method, foreign language lessons, learner-centered education

1. INTRODUCTION

Today, when traditional education is criticized, the fact that the student should participate more in the process of learning and take more responsibility for his own learning are undoubtedly among the most important features of the modern understanding and practices of education. Teaching is not just transferring information to the student and a process has started in which the importance of experience is better understood and teaching is combined with life.

In the 21st century educational approaches, some features such as placing the student in the center, teaching by living and preparing the student for life come to the fore. The most important purpose of this is the fact that learning experiences students have previously acquired help them to solve problems they encounter in life. Therefore, it is important that drama is preferred and used as a teaching method today. As one philosopher states, "Drama rules are the same as life rules" (Heathcote, 1984).

Because foreign language education is one of the lessons which include abstract learning from time to time, it cannot be understood by students. This affects students' motivation negatively. Achieving the goals in foreign language education depends on teaching the lessons enjoyably and concretely. According to Sezgin (2015), drama also activates all of the types of multiple intelligence.

In this study, firstly information about the features and application process of drama is given as a teaching method. Then information about the use of drama in foreign language teaching is given.

2. The Use of Drama in Teaching as a Method

Traditional teaching is teacher-centered. Today, an understanding of education where the student is at the center, but not the teacher is now gaining importance. Making the knowledge learned permanent by increasing students' achievement at school is possible by relating knowledge to daily life. Drama is regarded to be one of the most effective methods which serves this purpose and it is stated by many researchers that this method should be included in all levels of education (Debre 2008; Gönçüoğlu 2010).

The function of drama in education is important because the use of drama in education as a teaching method enables the individual to recognize himself, produce and show himself in the classroom. Another basic purpose of using drama in education as a teaching method is to develop students' cognitive, affective and behavioral abilities (Genç, 2003).

It may not always be possible to bring every subject or item to the classroom during the teaching process. Drama helps students to learn the events they cannot access by experiencing them in person. In addition to this, it contributes to the effect development of students' thinking, perceiving, interpreting, listening and speaking skills. The acquisition of these skills are already among the behaviors, with which the Life and Social Studies Course will equip students (Karadağ and Çalışkan, 2006).

Another benefit of the drama method is about language development. Drama has a significant effect on students' language development and use. In this way, students can get the habit of using the language as a tool in wider social events than they use it in the classroom. With use of drama in teaching in this way, some very important functions of language can be performed such as persuading, claiming and settling a dispute (Özen, Gül and Gülaçtı, 2008). Research also indicates that teaching lessons in accordance with the drama method helps students to improve their dialogue with the group. Thus, students can increasingly more easily understand other people and communities historically and geographically by starting from the social environment where they live and they can improve their imagination (Küçükahmet, 2001).

3. The Use of Drama in Foreign Language Education

One of the main fields in which drama is used the most effectively is foreign language education. Implementing the method in foreign language teaching successfully is possible by knowing well the features of the method and how it is implemented. In section is given information about how the drama method is used in foreign language education.

Drama techniques are of two types: formal and natural. Natural drama techniques emphasize being natural. In drama plays of this format, actors have the freedom of expressing themselves as they like. The purpose this drama technique is to equip students with the habit of speaking freely and to enable them to express their feelings and thoughts with their own words as they like. It is stated that these habits are acquired more effectively at a young age. Formal drama technique is mostly for adult students. Plays in this type of drama are more serious and planned. The play to be acted is shared, memorized and rehearsed by the actors (Özdemir, 1997).

The feature of drama's ensuring natural learning also forms the essence of humanistic language learning approaches. The component which distinguishes drama from these approaches is its feature of convincing. In drama activities, participants are deliberately removed from the 'here' and 'now' status. The familiar student and teacher social status is changed. Instead of this, imaginary contexts are created in which participants act and speak in accordance with the roles they take on. With these imaginary contexts, participants are provided with different spatial situations and experience of interpersonal relationships. Reflection and self-awareness are encouraged through these experiences (Kao and O'Neill, 1998).

The process of learning a foreign language depends on observation, imitation, active learning, communication and motivation. Therefore, drama practices and activities become an integral part of foreign language classes in the process of foreign language learning (Maley and Duff, 2009).

Foreign language teachers basically think that drama activities improve language learning. However, when the drama method is not implemented successfully, it causes lack of motivation in students. The main emphasis in drama work in lessons has more to do with using the language accurately than meaning (Kao and O'Neill, 1998).

The benefit of using any form of drama in foreign language teaching stems from the fact that it creates a context for communication in different languages and it encourages authentic dialogues between teachers and students (O'Neill, 1998).

According to studies, students who participate in drama activities, especially in improvisations during foreign language learning felt less embarrassed when they speak before a group compared to other in-class activities and thus, their self-confidence increased (Stern, 1981).

In order for drama work to be used effectively in foreign language lessons as a method, there three main stages. First, warm-up games are played to introduce the topic. The main purpose of these types of games is to relax students, get them accustomed to each other, encourage them to work together and also introduce the main topic of the lesson. It is generally useful to combine the first two games. One of these breaks the ice between the students and the other enables them to study for the content of the lesson. Second, warm-up games are used for the purpose of going over previously learned subjects and of reminding them. These types of games should be played before the 'exercise' or 'writing' stage of the lesson. These games can also be used for the purpose of calming students down after exciting and active learning which was spent. They also help to review the foreign language and make lessons relaxing and enjoyable. Sometimes due to various reasons, the lesson can become very boring without the teacher's fault. Whatever is done in such situations, the third of these games can be played by giving up teaching at that point (Koç, 2009).

Generally, the benefits of using drama in foreign language teaching can summarized as follows (Demirel, 1987: 62): 1. It improves the skill of listening effectively and carefully. 2. It increases self-confidence. 3. It enhances comprehension and creativity. 4. It enables to practice the language and improves speaking fluently. 5. It improves language command and the ability to express oneself well. 6. It enables knowledge to be used actively and reinforces it.

4. Conclusion

In this study, it is aimed to give information about using drama in foreign language lessons. To this end, relevant resources in the library and internet have been examined. A number of benefits of using the drama method in foreign language teaching are mentioned in these resources. First of all, the drama method makes the student active in the lesson and makes it enjoyable. The drama method plays an important role in solving the problem of self-confidence which is frequently experienced in foreign language education and it improves students' self-confidence. Getting a habit of effective listening, applying theoretical knowledge, improving the use of language skills and allowing implementation stand out as the main benefits of using drama in foreign language education.

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Developments in Foreign Language Education in Turkey in the Process of Entry to the European Union

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Abstract

Learning one or more than one foreign language is among the most important characteristics demanded of individuals in today's world because these characteristics make up the prerequisites for living in a multilingual and multicultural world. Today English is the most preferred language in the world. Turkey is expected to fulfill some requirements for membership to the European Union and some suggestions are made for this. The fact that Turkey is to implement certain regulations in the Turkish educational system is at the top of the suggestions the European Union makes in order for Turkey to develop economically, politically, socially and culturally. One of these regulations in the Turkish educational system is the field of foreign language education. The aim of this study is to determine developments in the field of foreign language education in Turkey in the process of membership to the EU. To this end, literature review was conducted in the Internet and library. In the survey in which descriptive analysis method was used, articles, books and dissertations which were found to be suitable for the purpose of the survey were evaluated. As a result of the study, it is seen that foreign language lessons are included more in the curricula implemented in schools in Turkey in the process of membership to the EU and that some studies were done about the requirements demanded by the European Union.

Keywords: Foreign language, Turkey, European Union, adaptation period

1. INTRODUCTION

Today, when globalization is dominant, the characteristics which individuals should have also change and some new qualities are required. The first of these qualities is the fact that individuals can read and write a foreign language well. In Turkey, the National Ministry of Education makes some innovations in order to meet this need.

Some factors are influential in determining educational policy in Turkey. These factors could be international as well as local. The Turkish educational system is deeply affected by external factors such as institutions and organizations of which Turkey is a member. Turkey is in the process of entry to the European Union. This process has a significant effect on shaping the Turkish education. One of the most important parts of the Turkish educational system affected in the process of entry to the EU is foreign language education. In this paper, first the general effects of the process of entry to the EU on education have been mentioned and then the effects of this process on foreign language education in Turkey have been handled.

2. REGULATIONS ON EDUCATION IN THE PROCESS OF ENTRY TO THE EUROPEAN UNION

The EU's educational policies as multifaceted and comprehensive as to include all areas of cooperation and all national and local institutions and people involved in education from basic education to lifelong learning (Terzi, 2005).

In general, it can be said that there is a multilingual and multicultural communal living space on the European scale in EU educational policies and it is aimed to raise individuals with shared values and European citizenship awareness

in this living space (Sağlam, 2009). As a policy, the EU adopts an understanding of 'all different', 'all equal' in cultures and in intercultural relations (Erdoğan, 2006).

From time to time, progress reports about Turkey are issued by the EU. Annual progress reports prepared cover EU candidate countries' developments about education. In the progress reports from 1998 to 2006, it was stated that Turkey's educational system was generally in harmony with the EU educational policies, but that there were striking differences in access to education between Turkey and the EU due to reasons such as Turkey's falling behind the EU standards in terms of educational service, courses, educational staff and general staff; large education gap in the poor and low educational opportunities and low participation in lifelong learning and it was emphasized that the developments followed every year were limited (Eurydice, 2010).

No common educational model is used among the EU member countries. Despite this, in the EU educational policies, several conditions are expressed, such as a common vocational education policy, generalization of vocational education, increasing the duration of compulsory education and teaching at least two languages during compulsory education (Atabay, 2006).

The Socrates program, which began in the EU countries and which aims to enhance the quality of education, has influenced primary education curricula in Turkey. It is considered necessary to attach importance to the equipment of some skills in education curricula, especially in primary education curricula in order for the new generation in Turkey to adapt to information society. These skills, which students need to acquire, are verbal and mathematical skills, basic proficiency in science and technology, foreign languages, knowledge and communication skills and use of technology, learning how to learn, social skills, entrepreneurship, creativity, research, critical thinking, synthesizing, problem solving skills and skills of general culture (Sağlam, Özüdoğru and Çıray, 2011). The EU education programs also include the Leonardo da Vinci Program to collaborate in the field of vocational education and support policies and practices, and the Youth Program to support youth work and strengthen communication among youth (Karaman, 2002).

In line with the information technologies policies included in the EU's Lisbon final declaration, Turkey also does work on equipping schools with computer technologies (Bayrakçı, 2005).

There are also structural changes envisaged by the EU for higher education systems. One of the first steps taken towards this is the Sorbon Declaration adopted in 1998. With the Sorbon Declaration, international student, teacher and academician mobility, increasing national and international cooperation, mutual recognition of diplomas, development of language and information technology competencies are aimed. The Sorbon Declaration also proposes the adoption of higher education programs as undergraduate and graduate programs (Eurydice, 2010b). One of the most important studies at the EU level in the field of higher education is ECTS (Serbest, 2005).

The EU commission has several studies on lifelong learning. For example, the study entitled "Towards Learning Society", which the Commission issued in 1995, is about lifelong learning. In line with the decisions taken, 1996 was accepted as the European Lifelong Learning Year. (Akbaş and Özdemir, 2002). Lifelong learning is defined as a skill among the fundamentals of the new primary education curriculum in the Turkish Education System.

3. REGULATIONS ON FOREIGN LANGUAGE EDUCATION IN THE PROCESS OF THE EUROPEAN UNION

One of the most important effects of the EU educational policy on foreign language education has been on primary education curricula. With the regulations made on education in 1997 in Turkey, five years of primary education was increased to eight years and foreign language courses which were not included in the previous five-year primary education curriculum were began to be taught compulsorily from the fourth grade of primary education (Cangil, 2004).

In Turkey in the process of entry to the EU, developments in foreign language teaching curricula continue. Changes in the curricula have been influenced by constructivist philosophy. In this context, in order to make foreign language education more effective, subject based language learning such as mathematics, geography and music; cooperative learning; drama practices and performance based evaluation have been encouraged in the curricula (Sağlam, Özüdoğru and Çıray, 2011). Gündoğdu (2005) states that different language options should be included in the curricula. Studies

indicate that significant developments and transformations are needed in foreign language education in Turkey (Arıbaş and Tok, 2008).

In his study, Karatepe (2005) states that development of foreign language education policies will lay the foundations of a socially and culturally conscious society. In this study, the concept of Plurilingualism was also handled within the context of the EU Language policies today and the reflections of this concept on language education policies in Turkey and England were analyzed. Çetintaş (2010) mentions the importance of adopting a student centered approach, of the necessity of creating an environment for communicative language teaching, of taking individual differences into consideration and of effective use of technology in foreign language teaching for foreign language education in Turkey, where the effects of the EU are felt.

In the process of harmonization with and membership to the EU, the reforms in the field of education have gained momentum in Turkey since 2012. In accordance with the decision of the National Ministry of Education, the Education Board no 69 dated 25 June 2012, changes were made in the weekly course schedules in primary and secondary schools. Accordingly, foreign language teaching was taken two years earlier and as of the 2013-2014 academic year, foreign language lessons were began to be taught from the second grade of Primary School. The transition process took place gradually from the first and fifth grades without any changes in foreign language lesson hours. This could be considered as a positive development in foreign language education (MEB, 2012). In June 2017, in accordance with the decision of the Education Board no 53 dated 30 May 2017, foreign language lesson hours were reduced by making a change in the weekly course schedules in secondary education (MEB, 2017).

4. CONCLUSION

Turkey continues to reform education in the process of entry to the EU. One of the fields where reforms are made is the field of foreign language education. The effects of the EU educational policies on the Turkish education has gained momentum in Turkey since 2012. One of these effects is mostly seen on curricula. Foreign language education is now offered compulsorily from the first years of primary school.

Turkey should reconsider its educational system in order to adapt to the EU without losing its originality and reforms should continue. In this process, while Turkey, on the one hand, prepares to educate children and young people for the future, on the other hand, she should act in accordance with the EU's goal of common European culture. For this, students should have good foreign language education and have the qualities expected from them in the future.

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Problems Arising from Teachers in Foreign Language Teaching in Turkey

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Abstract

Studies in the field of foreign language education in Turkey cannot be said to have achieved their goals. There are some reasons for this problem. Reasons such as wrong foreign language education policies, students' seeing foreign language as a formality and as a lesson that can be studied for grades, limitation of foreign language to a few languages, the curriculum's not being able to achieve the desired success and inappropriate time and preferences for learning a foreign language cause this problem. One of the reasons for not achieving the desired success in the field of foreign language education is problems arising from teachers. This study aims to address problems arising from teachers in the field of foreign language education in Turkey. To this end, a search was performed in the Internet and library with the key words "Foreign language education in Turkey", "Problems of foreign language education in Turkey", "Problems of teaching a foreign language" and "Foreign language teachers." Articles, dissertations and books which were found to be suitable for the purpose of the study were evaluated by descriptive analysis. As a result of the study, the process of training foreign language teachers was evaluated with regard to studies of pre-service and in-service, resources used from past to present to provide foreign language teachers were mentioned and programs training foreign language teachers today were analyzed.

Keywords: Foreign language, Turkey, problems of education, teacher

1. INTRODUCTION

There are some reasons why foreign language, especially English has gained importance all over the world. In parallel with scientific and technological developments, heavy demand for foreign language learning leads families and young people to attach more importance to this issue. Therefore, there has been a significant increase in the number of schools teaching in a foreign language in Turkey. Especially after the World War II, English has become the most preferred foreign language in Turkey. There are some reasons for this. Especially English's becoming a language of science and technology, its acceptance in international trade, the USA's becoming a super power and Turkey's close strategic cooperation with the USA are among the main reasons for this (Çakır, 2007).

In the 21st century, nearly all of the students in schools in Turkey (98,4 %) prefer English as a first foreign language. German and French (1,6 %) are not demanded so much as a first foreign language. These languages are mostly taught as a second foreign language in schools (Genç, 1999).

Although learning English has become important in Turkey as well as all over the world, the desired success in teaching English cannot be achieved. In Turkey, students learn English beginning from the second grade of primary school up to the twelfth grade of high school. Although students take English courses even at university, they have difficulty in communicating in English. There are a number of studies conducted on this problem. In these studies, different factors are given emphasis as the reason for the problem. Some blame the educational system, some the Ministry of National Education and some textbooks for this (Paker, 2012).

According to Günday (2007), one of the factors causing failure in foreign language teaching is to continue foreign language teaching with traditional methods by adhering to the textbook and not to use modern educational tools in lessons much. Ignoring the communicative aspect of English is again one of the greatest factors. According to Günday (2007), factors causing this are the fact that the Grammar Translation Method is still widely used in schools and that translating written texts is regarded more important than the acquisition of reading and listening skills (Özdemir, 2016).

Failure in English language teaching is also reflected in statistics. For example, according to Paker's (2012) study, students begin to learn English at an elementary level in the fourth grade of primary school and they have an average of 1400 hours of instruction in English, 700 hours in primary education and 700 hours in high school. However, 90 % of the students still remain at the elementary level at the end of 1400 hours of instruction. Similarly, Ülkar (2015) stated that English proficiency of 63 countries were ranked in the English Proficiency Index issued by the International Language Center Education First, which offers foreign language education in seven foreign languages in 44 cities in the world and that Turkey ranked the 47th while Denmark ranked the first.

In the twentieth century, English became an important language among foreign languages not only in Turkey but also all over the world. As a foreign language, English increasingly gained importance after the World War II and it became important in international relations. As a natural consequence of this, teaching English and the necessity of training of teachers of English to realize this teaching phenomenon emerged (Sevinç, 2006). One of the reasons for the lack of foreign language education at the desired level in Turkey is related to teachers. In this study, first main problems encountered in foreign language education in Turkey are considered and then problems arising from teachers are addressed.

2. Main Problems in Teaching English in Turkey

Güven (2001) examines the reasons for failure in foreign language teaching which starts in primary education and continues up to the higher education under the following headings: Course materials, course hours, techniques and methods used, teacher, educational system, school, course subjects and class practices, etc.

Class sizes should be as low as possible for effective foreign language teaching. Giving students sufficient time to use the target language is only possible with a low class size. Crowded classrooms are an important factor which makes foreign language teaching difficult (Teevno, 2011; Tifaroğlu and Öztürk, 2007). While there should be a maximum of fifteen students in classrooms for effective foreign language learning and teaching, the number of students in many public schools are higher than fifteen (İşeri, 2006).

Curricula can be shown as one of the factors which cause problems because how the process of teaching is supposed to be in foreign language lessons is designed through curricula (Smith and Ragan, 1999). English courses have also taken their share from the rush of changes in the educational system in Turkey. The changes which the MONE makes are widely covered in the visual and print media. The public, media, students, teachers and parents perceive continues changes made by the MONE and turning the educational system to a jigsaw board as an inconsistency (Kaplan, 2013).

According to Işık (2008), although foreign language education is given this much emphasis and funds are allocated to it, the decisions taken are not based on scientific data. The decision are mostly based on the views of political powers and personal thoughts of the bureaucrats and The Board of Education, who is responsible for foreign language education policy and planning, is not in a position to fulfill this task. The members on the Board are assigned to their positions rather than being elected by merit.

An individual is supposed to be exposed to foreign language as much as possible in foreign language learning. Along with an individual's own efforts who is learning a foreign language, adequate number of hours allocated to foreign language in schools is an important point in the process of foreign language learning. As a matter of fact, Günday (2007) emphasizes that weekly course hours and students' demands for more than one foreign language should be taken into consideration and it is necessary for the MONE and the Higher Education Council to attach more importance to foreign language teaching.

The textbook and other technological materials to be used in foreign language teaching are an indispensable components of the process of foreign language teaching. Lack of these materials affects the process of foreign language teaching negatively. As a matter of fact, many of the public schools in Turkey do not have infrastructural features through which students can communicate (Kırkgöz, 2007).

One of the problems in foreign language teaching is about teaching methods. While the vast majority of teachers still use the Grammar Translation Method, which prioritizes teaching grammar, some prefer the Direct Method and the Audiolingual Method which are mostly based on speaking. In addition to this, the Communicative Language Teaching, which is gaining in popularity and prioritizes communication, has and is highly preferred by teacher (Erdem, 2016).

Lack of motivation or low level of interest is also among the factors which negatively affects teaching English. Although nearly all the students state that learning English is necessary when they are asked individually, they do not devote the necessary time and attention to English in the learning environment at school. English is an ordinary lesson for them. English is perceived as a burden by students other than those at language departments. It is nearly impossible for a teacher of English to teach such motivated students (Doğan, 2009).

According to Ali Işık's (2008) study, one of the problems in foreign language teaching is about the planning of foreign language education. More precisely, there is no real such planning. Although foreign language education is given great emphasis and so many funds are allocated to it, the main reason for not teaching English successfully is that the decisions taken are not based on scientific data and these decisions are mostly taken based on the views of political powers and personal thoughts of bureaucrats. It is stated that the members of the Education Board, which is responsible for planning foreign language education in Turkey, cannot be guaranteed that they are qualified to direct policies on foreign language education and healthy planning of foreign language education.

3. Problems Arising from Teachers in Teaching English in Turkey

According to Aküzel (2006), the most important factor in foreign language education is human, which is more obvious than other branches of science. In this context, the teacher is perceived as one of the most important factors. Aküzel's definition of the teacher is as follows: The teacher who gets students to meet with foreign language first is the person who sets up a positive learning environment in the lesson, designs and implements many teaching techniques, uses teaching materials accurately and effectively, guides the student by taking students' interests and needs into consideration and facilitates learning.

As of the 1997-1998 academic year, the MONE tried to make up the shortage of teachers of English across Turkey by offering teachers outside the branch of English language teaching in-service training or a certificate of English language teaching. This caused national resources to be wasted considerably. Also, foreign language teaching appointment policy implemented caused irreparable negative situations in the Turkish foreign language education system (Çetintaş, 2010).

Two important problem areas in foreign language teaching in Turkey stand out. The first of these is the system of training foreign language teachers and the second is shortcomings in the planning of foreign language teaching. The most important problem within the context of the system of training foreign language teachers is not to determine the curricula for training foreign language teachers at universities in accordance with field work. Programs are mostly prepared by people who are qualified as specialists at the desk (Işık, 2008).

One of the most important problems within the system of training foreign language teachers is about in-service training offered. In-service training in Turkey is offered within the MONE by mentors consisting of international experts without making good planning. The biggest shortcoming in in-service training is not to benefit from academics who are experts in their field in the planning and implementation of in-service training. In brief, it can be said that in-service training in Turkey is planned without conducting a needs analysis of what teaching issues are missing and which developments in education are supposed to be transferred to teachers (Işık, 2008).

Some of the problems about teachers in foreign language teaching arise from not ensuring adequate an effective cooperation and coordination between the MONE and the HEC. Developments and changes regarding foreign language teaching in the world cannot be reflected in the process of training foreign language teachers in Turkey. Theoretical knowledge cannot be put into practice and theoretical knowledge teacher trainees receive does not overlap with foreign language teaching curricula and classroom environments (Işık, 2008).

Günday (2007) states that one of the reasons for failure in foreign language teaching in Turkey is the shortage of well trained teachers. The teaching of foreign language lessons by other subject area teachers who do not have the required teacher competencies in foreign language teaching and even by people who do not have any teaching formation at all cause significant problems. Also, the fact that foreign language lessons are not taught in some schools due to absence of foreign language teachers causes failure in foreign language education.

Haznedar (2010) states that a large number of foreign language teachers in Turkey have not been to the country where the language they teach is spoken natively and that those who have been to that country have been there for 1-3 months. The process in Turkey is different from the process of teacher training in the EU member countries which have tried to implement new approaches in foreign language education in recent years (Trim, 1998). Studies conducted within the framework of the European Language Portfolio, which was continued through pilot studies in the mid-1990 and which has been begun to be implemented in every EU member country since 2000, require that foreign language teachers to be present in the context of internship and seminars in countries where the language is spoken for a certain period of time (Haznedar, 2010). The fact that foreign language teachers are temporarily present abroad through these and similar opportunities will contribute to their command of the language and to improving themselves especially in pronunciation.

The students' love of a foreign language while learning it affects the process of learning positively. Teachers have a great duty in this regard. The teacher's making the student more eager to learn (extrinsic motivation) facilitates learning. Research indicates that there are also problems in this field (Şahin, 2009).

Teachers are inadequate in number and qualifications in foreign language teaching. In Turkey, foreign language teaching remains far below the goals set. It can be said that the most important reason for this is that teachers are inadequate in number and qualifications (Kaplan, 2013).

One of the problems arising from teachers in foreign language teaching is about teaching methods. Teachers mostly use the method of lecturing. However, foreign language teaching cannot be realized only by this method. Factors such as crowded classrooms, inadequate time, concern with completing the subjects in time, students' low level of readiness and the need to teach theoretical knowledge push them to use the method of lecturing (Korkmaz and Özer, 2016).

4. CONCLUSION

In this study, it is aimed to handle the problems arising from teachers in the field of foreign language education in Turkey. Within the framework of the study, the fact that teachers should have the desired qualifications for success in foreign language education is emphasized. The most important problem about foreign language teachers is the fact that no long term scientific planning is made for teacher training by conducting needs analysis. Therefore, the MONE is expected to make scientifically strong planning for teacher training without political concerns.

Teachers have shortcomings in classroom management. The fact that teachers do not have the methods to increase students' self-confidence and motivation causes problems. In-service training is expected to be conducted in this regard. However, studies conducted indicate that in-service training activities for foreign language teachers are not adequate.

The EU considers it necessary for foreign language teachers to do studies of internship and seminars in countries where the language is spoken. However, foreign language teachers have significant shortcomings in this regard.

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Immigration, Children and Education (Sample of Syrian Immigrants in Turkey)

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Abstract

Immigration has become one of the most important problems in the world since the beginning of human history, especially in the second half of the 20th century. No people and no community migrate from one point to another for no reason. Of course, there are important factors that cause people and communities to migrate. War is one of these factors. For weak and defeated states, war means the devastating civilians and ultimately the migration of the survivors. Apart from the war fought by another country, civil war is among the most important reasons for this migration. Many factors such as famine, drought, thirst, and lack of land are among the reasons for people's migration to different areas. As a consequence of such migrations, especially children are negatively affected and they deprive of education. In the study, we aimed to reveal the sufferings of Syrian children who had to immigrate to Turkey and their educational opportunities supported by the government as well as their educational problems arising from language difference and socio-economic factors. We found out that those who managed to attend to the schools in Turkey could find a way to live in a safe environment under the guard of the government, whereas those who have chosen to work so as to support their families have certain difficulties in unsafe environments.

Keywords: Immigration, Syrian Immigrants, Education of Immigrants, Educational Management, Lifelong Learning

1. INTRODUCTION

Migration is a phenomenon associated with human existence. Throughout the history of mankind, it has been observed continuously both on a people's scale and on an individual dimension. In other words, it seems like a very unusual situation for man to remain stationary for a certain time and space. Therefore, migration or displacement is a very natural and even necessary movement. People in the particular plane (in their city or country) and in the universal dimension (countries and intercultural sense) are constantly changing places. While some are looking for basic livelihoods such as clean living space, shelter, food, water, etc., others are pursuing cheap labour, raw materials and production-marketing resources. Accordingly, not only those who use the resources, but also those whose resources are used migrate. In the former case, there may be no continuity. However, the latter generally has continuity (Güleç, 2017).

Migration expresses a phenomenon that needs to be emphasized due to its power to affect individuals, society and countries deeply and has the power to influence and determine the future. Due to its actuality, it will take its place among the main items of the agenda. However, migration also refers to a reality that has changed quality from the past to the present, has been affected by the cases and events that have taken place during its lifetime. For example, in today's world, migration has become more dynamic compared to the past. Fast and sudden masses of immigration should be added to this.

While migration changes country's demographic structure and some factors such as death, birth, population growth and population growth rate, on the other hand, it is a phenomenon that has the power to determine or affect the country's economic and social realities such as public services, public policies, employment, unemployment, and

wages. Therefore, migration does not only mean going from one place to another, or changing the place. Migration has the power to affect the country and the world with its macro and micro dimensions (Kesgin, 2017).

As global migration increases, the approach towards immigrants differs in addition to immigrant behaviour. Being elderly, disabled, patient and child as well as qualifications such as being qualified or unqualified, educated or uneducated and knowing the language of the target country are of great importance for the destiny of the immigrants. While countries meet their immigration needs, they demand qualified, professional, educated population and disadvantaged immigrant groups are generally undesirable.

The Anatolian geography, which is very rich in immigration, also creates a centre for global migration mobility, and is centred on both internal and external migration. With these migrations, our geography has experienced structural changes and transformations on the one hand, and on the other hand, this has led to concepts such as acceptance culture, tolerance, hospitality and sharing.

Turkey is a crossroads of migratory flows, and often is the source of irregular migration (İçduygu, 2015). Therefore, Turkey needs to make immigration policies closer to international standards and basic humanitarian.

1.1. Syrian Civil war and Migration

The migration problem of Syrian citizens, which has fallen to the world agenda of the 21st century due to the internal conflicts and civil war that started in their countries, is undoubtedly among the most important social problems of our day. According to UNCHR (2020) data, with this current problem, it is stated that since 2011, a total of 5 million 580 thousand Syrian citizens have had to leave their countries and that approximately 47.5% of the immigrant population is 2 million 555 thousand children. As it can be understood from the data, it is noteworthy that the problem is not only a migration problem but also a large refugee children problem.

Among the countries where the Syrians have migrated, Turkey ranks the first with 3 million 585 thousand Syrian population, 1 million 500 hundred of which are children.

Total Persons of Concern by Country of Asylum

Location name	Source	Data date		Population
<u>Turkey</u>	<i>UNHCR, Government of Turkey</i>	14 Feb 2020	64.4%	3,585,209
<u>Lebanon</u>	<i>UNHCR</i>	31 Dec 2019	16.4%	914,648
<u>Jordan</u>	<i>UNHCR</i>	6 Feb 2020	11.8%	655,435
<u>Iraq</u>	<i>UNHCR</i>	31 Jan 2020	4.4%	247,568
<u>Egypt</u>	<i>UNHCR</i>	31 Jan 2020	2.3%	129,642
Other (North Africa)	<i>UNHCR</i>	30 Nov 2018	0.6%	35,713

(UNHCR, 2020)

Although it was perceived as a temporary migration movement in the early days, this migration movement, which changed with the prolongation of the war in Syria, brought not only 3 million 585 thousand Syrian citizens, but also an important migration experience and many problems for our country. It is known that approximately one and a half million Syrian children seeking life prospects across borders have to cope with many economic, psychosocial and cultural risks in these processes. Even though they escape from civil war and get on the way to other countries to have better life, it appears that the situation is not so much; on the contrary, the differences such as language, religion, race, culture, tradition and socio-economic situation negatively affect the adaptation processes.

The phenomenon of migration has complex effects and traces on human being, a bio-psycho-social entity. The impact of this on sensitive, vulnerable and at-risk children may be at more damaging levels than adults. In addition, Syrian children who have been detached from their culture, background and living areas in migration processes can also carry the traumatic effects of displacement and exposure to war. Another of the most important critical risks

affecting Syrian children is not being able to be involved in education (schooling) or being able to adapt to the Turkish education system and schools in terms of language, curriculum, culture, after being included in education processes, and breaking from education processes.

There are different dynamics that force people to migrate. Many factors such as escape from war, violence and terrorism environment, political instabilities, human rights violations, ecological impositions, family reunification policies, political asylum demands, better educational opportunities, development of communication tools, easier transportation, economic problems according to time and place can result in migration (Göktürk 2006; Aksoy 2012; Sürmeli 2016; Deniz 2014; Bahar and Yılmaz, 2018). Although it may seem very different from each other, the basic idea behind all of these reasons is the desire to have a more prosperous life. As people have witnessed many different derivatives such as internal migration, external migration, business migration, brain migration, voluntary migration and forced migration, they may have to embark on a different adventure by relocating, even if they cannot predict the outcome (Tümtaş 2007). In particular, international migration brought along multi-faceted adaptation problems (Akıncı, Nergiz and Gedik 2015).

Indeed, in the study carried out related to the migration, settlement and integration problems of the Meskhetians who migrated to Turkey after 1992, they were reported to have difficulties in finding jobs, adapting to the environment, living their traditions and customs, and getting proper education (Yılmaz and Mustafa 2014)

Another important problem posed by migration is social isolation. Social isolation is a situation related to the adaptation of individuals or groups to the social environment they live in (Victor, Scambler, Bond and Bowling, 2000). The children of migrant families have to adapt not only to the new sociocultural environment but also to the school system in this environment. Another problem that the migration may pose is unemployment. According to Yüceol (2011), the relationship between migration movements and unemployment rate continues to be a remarkable subject of discussion both in theory and in practice. Another problem that comes with migration is cultural shock (İlgar and İlgar 2015). The values system used by immigrant families (Yıldırım 2007) and language and religion differences that can be considered in connection with these values system can be considered among the factors that will make the adaptation process to the immigrated society difficult (Bingöl and Özdemir 2014). In addition to all these, one of the important problem areas emerging with migration is education (Börü and Boyacı 2016). Migration, which negatively affects human life and school climate, can cause adaptation problems such as the lack of sense of belonging in individuals (Şahin 2012), a successful integration with the education system of the migrated country (Tezcan 1994), and the incompatibility of school culture and family culture (Kıncal 1999). Starting and continuing education for migrant children can help them to reduce the negativities of migration and speed up the adaptation process (Bilgili, Aydoğan, Güngör 1997; Bahar and Yılmaz, 2018).

1.2. Quantitative Facts on Immigrant Children of Syria

The number of registered Syrians in Turkey as of October 10, 2019 is 3.674.588. 1.991.638 of these people are male, 1.682.950 female. Table 1 indicates the number of total Syrian immigrants in terms of age and gender.

Table 1: The number of the Syrian Immigrants in terms of Age and Gender

AGE	MALE	FEMALE	TOTAL
0-4	291.323	272.160	563.483
5-9	255.107	240.254	495.361
10-14	200.390	185.169	385.208
15-18	151.756	123.725	275.481
19-24	323.678	230.505	554.183
25-29	206.662	146.651	353.313
30-34	169.595	124.375	293.970
35-39	119.754	94.722	214.476
40-44	78.947	70.24	148.971
45-49	58.549	55.908	114.457
50-54	47.314	45.434	92.748
55-59	32.914	33.326	66.240

60-64	22.991	23.767	46.758
65-69	15.60	15.771	30.831
70-74	8.474	9.148	17.622
75+	9.475	12.111	21.486
TOTAL	1.991.638	1.682.950	3.674.588

- 46.79% of Syrians in Turkey are in the 0-18 age range.
- According to the age range table, there are 1.719.533 Syrians in the 0-18 age range.
- The number of Syrians under 10 is 1.058.844. In other words, 28.81% of Syrians are under 10 years old.
- The total number of women between the ages of 0-18 is 2.581.175.
- This number corresponds to 70.24% of the total number of Syrians.

Young Syrian Population Rate

- There are 829.664 people in the 15-24 age range defined as young population.
- The ratio of young Syrian population to the total number of Syrians is 22.57%.
- Turkey's young population ratio is 15.8%

Average Age of Syrians

- Average age of registered Syrians by age table is 22.13.
- The average age of the population of Turkey according to 2018 data 31.7.
- The number of Syrian men is higher than that of women.
- According to the table, the number of Syrian men is 308.688 more than the number of Syrian women.
- The biggest difference between the number of men and women is between 19-24 years with 93.173 people.
- This difference decreases as the number of age increases.
- It is seen that the number of women in the age ranges above 55 is more than men.
- The number of registered Syrians has increased by 51.396 since December 31, 2018.

Number of Syrians Living in Camps (Temporary Accommodation Centres)

- As of 10 October 2019, the number of Syrians staying in the temporary accommodation centres was announced to be 63.148.
- This number was 63.187 people in September 2019.
- 143,558 people at the beginning of 2019. At the beginning of 2018, there were 228.251 people.
- Accordingly, the number of Syrians living in the camps decreased by 80.410 in the first 10 months of 2019.
- Only 1.71% of Syrians live in camps.

Number of Syrians Living in Cities

- As of 10 October 2019, the number of Syrians living in the cities was 3 million 611.440.
- The number of Syrians living in cities increased by 8,568 compared to the previous month.
- 98.29% of Syrians live in cities.
- The migration administration decides in which city the Syrians will live.
- Some major cities, especially Istanbul, are closed to Syrian recruitment.

1.3. Current Situation and the Steps to be taken

In these days, when the relations between Syria and Turkey nowadays is extremely tense, one of the important issues that need to be addressed in the relations between the two countries, of course, is Syrian citizens who have escaped civil war in Syria and took refuge in Turkey. In the Syrian Arab Republic, thousands of people had to leave their homes as a result of the events and internal turmoil that flared up in March 2011.

During nearly eight years of ongoing events, mass population movements from Syria to Turkey has continued to increase. In addition, there were some who returned to Syria voluntarily during this period. Syrian citizens who have valid passports were allowed to go to other countries.

As a result of "Open-door policy" Turkey granted Syrian citizens temporary protected status, and these people, until the normal situation has been built in Syria, are in the guest position in Turkey.

It is vital to provide asylum-seekers education opportunities by taking care and care about their language and cultural difference as well as shelter, health and food benefits. Achieving this goal will prevent further problems in the future from growing further, and will lead to a healthier, seamless relationship ground.

It is a common belief that the Syrians who settled in our country will not be able to return to their land in a short time. Accordingly, the Ministry of National Education has decided not to admit students to temporary education centers after this year. So urgently Syrian children is planned to enroll in regular schools in Turkey. There are problems arising from the quality of education provided in temporary education centers. In these centers, only Turkish lessons are taught by Turkish teachers, while other lessons are given by Syrian teachers. The education program in Syria is implemented in temporary education centers with some corrections. However, it cannot be said that both Syrian teachers' teaching and teaching experiences are sufficient. It was gratifying that the doors of normal schools were opened to Syrians instead of temporary education centers.

From the first year he came to Turkey to continue the work of Syrian children remaining half of the training was conducted. The first step comes as soon as they returned to their country and their early studies designed so that they will continue their education in the country remaining half of the Religious Foundation of Turkey and temporary learning centers initiated under the leadership of other NGOs. These centers are primary and secondary education centers that operate in and outside the camps and provide Arabic education by Syrian teachers adhering to the Syrian curriculum. These centers are very important in compensating for the interrupted education of children in emergency situations. However, it is functional if Syrians return to their countries in a short time. The situation changed after the permanence of the Syrians was understood. After that, the functionality of temporary education centers decreased. Because the effect of temporary learning centers in Turkey is weak in terms of compliance. The Syrian involvement of Turkey's education system to adapt is inevitable.

Because the Syrians understood that they are permanent because of Syrian children in public schools in Turkey are given the opportunity to study with native peers. When we look at the migration experiences in the world, it can be seen that immigrant children are directly included in the schools in the language of the host country in order to adapt to the social, cultural and economic life of the country they are visiting. Indeed, schools for immigrant children are not only places where they provide academic development, but also where needs such as socialization, integration and security are met. Thus Syrian children to study with their peers in local public schools in Turkey is very important in terms of adaptation to Turkey.

According to MoNE data, 595 thousand Syrian children are enrolled, of which approximately 222 thousand are in temporary education centers and 373 thousand are in public schools. There are approximately 550 thousand school age children who are not enrolled and 500 thousand Syrian children are approaching the school age. The size of the number also shows the importance of the steps to be taken in the field of education.

1.4. Current Situation and the Steps to be Taken

In recent years when the relations between Syria and Turkey are extremely tense, one of the important issues in the relations between the two countries that need to be settled down is Syrian citizens who have escaped from Civil War in Syria and immigrated to Turkey. Millions of people were forced to leave their homes in the Syrian Arab Republic in March 2011 as a result of flaring up conflicts and internal unrest.

During nearly eight years of ongoing events, mass population movements from Syria to Turkey have continued to increase (Ağır and Sezik, 2015; Akgöz Çevik, 2016). In addition, there were also those who returned to Syria voluntarily during this time. Syrian citizens who have a valid passport are allowed to go to other countries.

As a consequence of "Open-door policy", Turkey granted temporary protected status to Syrian citizens, put these people up as guests until the situation turns normal in Syria. Turkey doesn't want them to turn back their country in these circumstances, as their security is of great risk due to ethnic conflicts in Syria. It seems an intermediate solution until a longer-term solution is found. The needs of persons granted temporary protection status are covered by the state that accepts every need and seek asylum in Turkey, and with the status Syrian citizens have no rights, and nor do they apply for asylum in a third country.

Providing training opportunities for asylum seekers by taking care of their language and culture differences as well as housing, health and food aid is of vital importance. Achieving this goal will prevent further difficulties in the future and will lead to a more healthy and problem-free relationship.

It is a common opinion that the Syrian immigrants who have settled in Turkey will not be able to return to their lands in a short time owing to the political instability and conflicts among ethnic groups in Syria. Accordingly, the Ministry of National Education decided not to admit students to temporary education centers after 2016. So urgently Syrian children were planned to enroll in regular schools in Turkey. There were problems arising from the quality of education provided in temporary training centers. In these centers, only Turkish courses were given by Turkish teachers, while other courses were given by Syrian teachers. In the temporary training centers, the training program of Syria was implemented with some corrections and regulations. However, the training and teaching experiences of the Syrian teachers were not sufficient. As a result, instead of temporary training centers, the doors of formal schools were opened to Syrian children at school ages.

Education of Syrian Immigrant Children

From the first year when the immigrants came to Turkey, the Ministry of Education and Immigrant Office have worked on dealing with Syrian children to resume their education. As it was thought that the immigrants would return to their countries soon, the first step was to design temporary training centers under the leadership of other Non-Governmental Organizations (NGOs) so that they could resume their education by Syrian teachers in Immigrants camps. These centers are primary and secondary education centers operating both inside and outside the camps, providing Arabic education by Syrian teachers adhering to the Syrian curriculum. These centers are very important in terms of compensating the interrupted education of children in emergencies. However, it is functional if Syrians return to their countries in a short time. But the situation has changed as the civil war is still ongoing. After that, the functionality of temporary training centers decreased. Because the effect of temporary learning centers in Turkey is weak in terms of compliance. The involvement of Syrian immigrant students in Turkey's education system to adapt is inevitable.

Because the Syrians have been realized to be permanent in Turkey, Syrian children have been given the opportunity to study with native peers in public schools in Turkey. When we look at the immigration experiences in the world, it is seen that immigrant children are directly included in the schools where the language of the host country is adapted in order to adapt to the social, cultural and economic life of the country they are admitted. As a matter of fact, schools for immigrant children are not only places where they provide academic development, but also where socialization, integration and security are met. Thus Syrian children to study with their peers in local public schools in Turkey is very important in terms of adaptation to the new environment.

According to the Ministry of National Education (MoNE) data, 595 thousand Syrian children are enrolled, of which 222,000 are in temporary education centers and 373,000 are in public schools. There are approximately 550 thousand school-age and 500 thousand Syrian children who are not attending school. The size of the number shows the importance of the steps to be taken in the field of education.

MoNE is working to ensure that Syrian children have access to education in public schools and for qualified education. The most important of these activities is the Project of Supporting the Integration of Syrian Children into the Turkish Education System with the EU. The project that has been carried out since October 2016 is funded by the EU to support Syrian refugees living in Turkey in terms of their health, psychosocial support, and education. This project includes some activities such as teaching Turkish and Arabic languages, compensation and support training courses, transport services, providing educational materials and awareness about educational opportunities. In addition, in-service training is given to the teachers if they have Syrian students in their classroom. As a matter of fact, native teachers do not have the experience of teaching immigrant children whose mother tongue is different. For this reason, it is important to raise awareness of teachers about the education of refugee children and to provide and support professional development opportunities.

4. RESULTS AND SUGGESTIONS

The most fundamental problem of the immigrants in Turkey, as in all the world, is the difference of language and alphabet (Güler Arı and Kayalar, 2016). Owing to the language problem, Syrian children cannot benefit from educational opportunities equally. Therefore, there is a need for professional collaborations on language education. Secondly, there is a need for guidance training to raise awareness among all school staff, administrators, teachers, native students and parents who will take care of Syrian children and to increase their awareness and to avoid prejudice.

Similarly considering the immigrant children fleeing the war and going to a foreign country, it is essential to strengthen the school guidance to ensure their compliance with the training process and to improve these children's psychological trauma or other cases.

Thirdly, there is a need for informative studies on the educational processes so that the parents can give necessary help for their children. Lastly from the truth that there will be important actors both for the development of Turkey and for the reconstruction of Syria, there is a need for permanent, effective and efficient policies on immigrants' education in order that immigrant children and youths at school age can get qualified education.

International community has often expressed at every opportunity admirable and generous appreciation of the responsibilities that Turkey has undertaken in the face of crisis in Syria. However, the support of European Unity to relieve the burden of Turkey for Syrian immigrants is not enough. In addition, the fact that the international community focuses solely on financial support and limits the aid to be material is also a matter to be criticized. As a matter of fact, there are not only financial barriers to the education of Syrian refugee children and youth. In addition, it is known to exist major problems such as teachers, physical infrastructure, curriculum and educational materials. Therefore, it is important for the international community to take more responsibility and contribute to a sustainable and quality education for Syrian immigrants.

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The Importance of Academic Language in the Education and School Achievement of Immigrant Students

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Abstract

Language is a way of seeing, understanding and communicating the world. Language is at the center of learning process because people acquire most of the things they learn through language. Learning in classes and schools is largely through language. Academic language skills are of paramount importance for the students who are studying in foreign countries or have to go to foreign countries as immigrants. It is much more important for school achievement to use academic language than to speak and write the target language fluently. In our study, new approaches to how to develop academic language skills, which are the major obstacle to the failure of the school-aged children of Meskhetian (Ahiska), Syrian, Iraqi and Afghan immigrant families who have migrated to our country in the schools, have been discussed and examined. At the end of the study, the duties of teachers and families in terms of academic language acquisition in the school achievements of immigrant students were determined and many suggestions were made. We have the conclusion that the immigrant students should be made to acquire academic vocabulary, academic grammar and reading comprehension skills before enrolling to the schools.

Keywords: Academic Language, Immigrant Education, School Achievement, Classroom Management

1. INTRODUCTION

Turkey, due to its geographical, cultural and strategic position, has been exposed to migration as a target or transit country in every period of its history. From 2011 onward, due to the civil war in Syria, an intense wave of migration to Turkey has begun and during this time about 12 million Syrians have had to leave their houses. Of these, 4.8 million fled to neighbouring countries such as Turkey, Lebanon, Jordan, Iraq and Egypt. State institutions and civil society organizations in Turkey all have made into an extraordinary effort to meet the needs of people who have left their country.

On realizing that the immigrants to Turkey will not go back their country in near future, Turkish government has tried to solve their education issues, and those who want to get education in Turkey at every level from primary school to higher education have been supported and provided with all educational facilities. Language centers which teach Turkish to foreigners were opened in the cities where the majority of the immigrants live, and they have been taught Turkish language so as to adapt to training at Turkish schools. Especially in higher education, it has been observed that the immigrant students have difficulty in examinations due to lack of academic language skill (Kayalar and Kayalar, 2016).

1.1. Academic Language

The notion of academic language developed out of research in the 1970s and 1980s that focused attention on the challenges of the school children that they experience at school environment and how the language expectations at school differ from the language of the home and street. Children continually obtain, acquire and develop new

knowledge from their family and school environment as well their peers, thus they need support in using language in new ways. This introduction to the special issue offers insights into the challenges and affordances of developing academic language and suggests implications for pedagogy, teacher education, and further research (Schleppegrell, 2012).

The term academic language refers to formal language rules, structure, and content for academic dialogue and text, and the communication skills for the students to meet the demands of school environments. Academic language is referred to the specialized oral and written language skill of academic settings. It facilitates communication and thinking about disciplinary content (Nagy and Townsend, 2012; Gottlieb and Ernst-Slavit, 2013). For instructional purposes, academic language skills include advanced vocabulary and syntax that enable students to achieve key elements of both oral and written language. These skills are necessary for the listener or reader to gain a rich understanding of academic conversations, speeches, messages and texts.

Academic language refers to the language used in every level of educational, from primary school to higher education, to acquire new or deeper understanding of the content and to communicate the acquired understanding to others (Bailey & Heritage, 2008; Gottlieb et al, 2009; Schleppegrell, 2004; Kayalar and Kayalar, 2016). Academic language allows the students to think as scientists, historians, or mathematicians, as it conveys the kind of abstract, technical, and complex ideas and phenomena of the disciplines. Thus, academic language promotes and affords a kind of thinking different from everyday language.

Researchers are also calling for more attention in teacher education to preparing teachers to support academic language development (Lucas et al, 2008). Anstrom et al. (2010) argued that academic language is the language used in school to help students acquire and use knowledge.

Almost all students in higher education should be good at and have academic language skill, as it enables them to describe and define complex concepts in comprehensive and concise way. It makes possible for them to describe complex thinking process for comprehension, solving problems, and expressing ideas, constructing an idea and analysing data in science. Also academic language enables students to describe abstract ideas that are not easily illustrated or explained with images, such as values and beliefs, democracy and adaptation (Zwiers, 2008).

Immigrant students at higher education have difficulty in mid-term and final examinations, especially in multiple-choice exams, due to lack of academic language skills, though they are good at oral communication out of school in Turkish language. In order to be successful at the examinations, they need academic language which requires a full capacity of scientific vocabulary. Their cultural difference and their native alphabet in Arabic language have created a great impediment for them to achieve academic language skill in written and oral examinations.

2. LITERATURE REVIEW

Margo Gottlieb and Gisela Ernst-Slavit (2013) argue that academic language seems to permeate the halls of schools these days. In their research, they tried to find answers to the questions of “What is the academic language embedded in student standards?”, “What is the academic language of instructional materials?”, and “How can multiple texts and voices contribute to the teaching and learning of academic language?”

According to Francis, Rivera, Lesaux, Kieffer, and Rivera (2006), in today’s educational arena, academic language is central to schooling and it is one of the most significant and profound factors which have great impact on academic success.

Moll, Amanti, Neff, and Gonzalez (2001) state in their research that each of the students in the same classroom brings his/her own personal history with its own cultural orientation. Besides, family members contribute to each student’s linguistic and cultural repertoire. Every kind of occurrences, happenings and events, places, and people in the community the students live in forms cultural layers.

Marzano (2006) carried out a study to find out what the impact of the Building Academic Vocabulary (BAV) program is on students’ ability to read and comprehend subject-area content. He found that teaching standards-based academic terminology using a specific six-step process can enhance students’ abilities to read and understand subject-area content and ultimately help students build a store of academic background knowledge that enhances academic achievement.

According to Grigorenko (2015), to effectively teach academic language, educators must utilize the information about students’ existing language skills and patterns to expand their linguistic skills in ways that allow them access to the language of instruction and to develop the ability to communicate their learning in ways that count. Based on what students already know, educators need to teach students specific rules, norms, conventions, patterns and features that constitute standardized English.

3. MATERIAL AND METHOD

3.1 Problem Statement and Purpose

The aim of the study on the Failure of Syrian Immigrant Students in Academic Language Skill at Teacher Training Program is to determine the similar and different views of the students in various departments of the Faculty of Education in Gazi University, the Faculty of Education in Erzincan B. Y. University, and the Faculty of Science and Arts in Namık Kemal University, and to appreciate the importance of Academic Language skill and its effect on students’ academic failures in multiple choice examinations. We aimed to find out satisfying answers to our problem statement. To fulfil the purpose of the study we asked the students “What are the reasons for your failure in multiple-choice examinations?”

3.2 Methods and Research Design

We used a qualitative research method to determine and evaluate the views of the students about academic language and its effect on their failure in multiple-choice examinations. This kind of methodological approach was chosen as it enables researchers to interpret and make judgement about immeasurable data (O’Tool and Beckett, 2010). We preferred and used easy accessible sample technique in the research, as it increases the speed of collecting data and enables researchers to access the sample easily (Yıldırım and Şimşek, 2006). We conducted this research with the views of the students at various departments of the Faculty of Education in Gazi University and Erzincan University, and the Faculty of Science and Arts in Namık Kemal University. For this reason we relied on case study design for the purpose of our enquiry.

3.3. Universe of the Research

We included fifteen students who emigrated from Syria to Turkey in our study, who attend to various departments in Gazi University, Erzincan B. Y. University and Namık Kemal University in Turkey. As shown in Table 1, the youngest student is seventeen years old, at the first grade of the department of Biology Department, while the eldest is twenty five years old, at the fourth grade of the department of Turkish Language and Literature. We obtained the data from fifteen students who admitted to be involved in the interview for the research. The participants were asked whether they were contented to answer to the questions, and then we applied the tool. The names of the students are coded with letters and numbers.

Table 1: Statistical data as to Gender, Age, Academic Field and Grade

GENDER		AGE		ACADEMIC FIELD		GRADE	
Male	11	17-19 years	8	English Literature	2	Grade 1	10
Female	4	20-22 years	4	History	3	Grade 2	2
		23-25 years	2	Biology	3	Grade 3	2
		Over 26 year	1	Mathematics	4	Grade 4	1
				Classroom Teaching	1		
		Social Sciences	2				

3.4 Research Instrument

In the study, we used the tool with semi structured interview form to gather data from the students at the departments of Mathematics, History, English Language and Literature, and Biology in the Faculty of Education and the Faculty of Science and Arts. We asked one open ended questions to the participants. The question was designed in accordance with the main characteristics of Academic Language Skills and Students’ Failure in Multiple Choice Examinations. The question of the interview was formed by the final judgement of three experts in the field.

3.5 Data Analysis

We obtained the data through one by one and face to face interview with the participants; the replies to the interview question were abstracted and made into pure data. The data were then transferred and digitalized into computer in order to form digital data.

4. FINDINGS

In order to get satisfying replies to our question “What are the reasons for your failure in multiple-choice examinations?”, We abstracted and filtered the statements of the participant students in a way the statements could keep their deep and main meanings. The first student’s views on failure in multiple choice examinations are as follows:

(A. male Student at the Department of Biology, at the 1st Grade of the Faculty of Science and Arts) “.... I had Turkish language course before graduation. I can speak Turkish well after the course and I can communicate with my Turkish friends in the university. But I didn’t manage to pass my exams in multiple choice forms. Even if I can understand the question, I cannot give correct answer, because I meet some scientific words that I have never seen so far, and The answer that I choose might be wrong one. I need academic language at advance level...”

(B. Female Student at the Department of Classroom Teaching, at the 1st Grade of the Faculty of Education) “...I take three courses through online education. I like the courses of Turkish Language and History of Turkish Republic through online and I regularly follow the courses. However, the scores that I get at the examinations are very low. The examinations are held in the form of multiple choices. I cannot understand the questions well, as some words on exam paper come to me very unfamiliar, as a result I get low mark and failure in those exams I have to develop my academic vocabulary capacity to be successful in exams. In fact I don’t have any difficulty speaking Turkish language...”

Academic Language is believed to be one of the most important factors in the academic success of Immigrant students, and it has been shown to be a major contributor to achievement gaps between them and the native ones. From the statements of the students with whom we interviewed in the study, we can argue that mastering Academic Language is a challenge for all immigrant students. Any student in higher education may struggle with tasks that require proficiency with Academic Language, such as reading, writing, speaking and listening. Research clearly shows that it is especially challenging for students with limited exposure to academic language outside of school. For immigrant students, under-developed Academic Language skills are largely responsible for poor reading comprehension and scientific books, a keystone in mastering any content.

The other participants’ views on academic language and its effect on failure in multiple choice examinations are as follows:

(C. Male Student at the Department of Mathematics, at the 2st Grade of the Faculty of Science and Arts) “...Learning is more feasible in the virtual learning environments than traditional ones. For example, as a professor, I may not have time to teach in traditional classroom due to the high level of workload, but may allow time to teach in virtual environments, because VEs create a time-independent process. On the other hand, while it is possible to transfer knowledge to distant places all over the world, it is impossible with traditional ones.... In the perspective of personalized learning, it can be said that the student is an active participant in virtual learning process. It directs activities through options. The student who moves in this way is not only physical but also mentally exist in learning environment, thus learning becomes easier.”

The teaching of the Academic Language component, (vocabulary, grammar, syntax, style, etc.) is complex and requires a deep understanding of the language demands of the content. For example, challenging language demands in math include: symbolic notation; visual displays, such as charts and graphs; technical vocabulary; and grammatical features such as complex noun phrases.

One of the truly insightful questions we need to ask when students are under performing is:

“Are they failing to master the specific content in the subject area, or are they failing language comprehension?

Another way to look at this, say for Maths, is to ask a question such as:

“Are my students failing to demonstrate the ability to create an equation, or

“Are they unable to create an equation because they don’t comprehend what’s being asked of them?”

The reality is that they may well know how to do Maths, but not have mastered the language we use to teach Maths.

4. CONCLUSION AND SUGGESTIONS

What can be done in our classrooms to better address these challenges?

Firstly, the instructors should analyze the text, tasks, and tests associated with a lesson in order to identify the language demands that are either overtly expected or tacitly implied. They should focus on the receptive language skills such as listening, reading and/or productive language skills such as speaking and writing needed by the student to complete a lesson successfully.

Secondly, the instructors should add a goal of developing their students' Academic Language in their lesson plan. Each lesson should have specific goals for both the language and content components. They shouldn't make too many assumptions with respect to their students' mastery of the Academic Language they are using in teaching the content. They should work from their analysis of what is required and develop specific lesson components to address those requirements.

The instructors should consider high-frequency vocabulary, which is primarily comprised of social language. This would include terms used in everyday situations such as when students are speaking with their friends in the lunchroom or on the playground.

Also, they should consider general vocabulary for the content area, comprised mostly of Academic Language. This would include terms used in doing school work but not directly associated with the specific content area.

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Innovation Management and Entrepreneurial Traits in Restaurant Business: An Association to Achieve SME Restaurant Performance

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Abstract

Many scholars have theorized that entrepreneurs are a key driver of economic development through the introduction of innovation. Entrepreneurs with distinct characteristics have been manifested to challenge innovative behaviour which induces to business successful performance. As the level of innovation varies depending on the business sector, this study reconnoitres innovations in the context of Thai SME restaurant businesses to consociate a gap of understanding between entrepreneurial traits, innovation and restaurant performance. The data from 300 samples who are SME restaurant owners were congregated to test the theoretical model. The exploratory factoring analysis and multiple regression analysis found that three entrepreneurial traits are positively related to innovation management and SME restaurant performance. Additionally, innovation management is positively related to SME restaurant performance. The dominant outcome of this study reveals the importance of creating innovation configuration for Thai SME restaurants and contributes to the developing literature on innovation in hospitality and entrepreneurship.

Keywords: Innovation management, Entrepreneurial traits, Restaurant business, Restaurant performance, SME in Thailand

1. INTRODUCTION

Thailand is a fast emerging country that aspires to become a high-income economy by 2037 [1]. Thailand's tourism industry remains one of the strongest in Asia and is an important component of the service sector. The Ministry of Tourism and Sports reported that 35.4 million international tourists arrived in 2017, a 9 per cent increase from the 32.6 million tourists that visited Thailand in 2016. Thailand's goal is to continue to grow the number of tourists by 10 percent annually. As Thailand's hotel, restaurant, and institutional food service (HRI) sector are reliant on tourism, the growing numbers of tourists continue to fuel the growth of the country [2]. The tourism sector plays an important role in supporting the expansion of the Thai restaurant business. The restaurant business gains tremendous benefits from tourism as food and beverages income is accounted for 20% of total revenue from tourism [3].

Most of the restaurant business in Thailand is small and medium enterprise which has a registered capital ranges between 1 - 5 million baht [3]. The hospitality industry estimates that the market share for this sector is the highest proportion of all restaurants [2]. Accounting for the majority of businesses, small and medium enterprise (SME) restaurants play an important role in generating economic development. The statistic information revealed that as of March 31, 2017, there are approximately 11,945 restaurants operating nationwide. 99.72% of these restaurants are SMEs. With this percentage, a total of SME restaurants is 11, 912. In addition, 43.72% of these restaurants are located in the Bangkok area, followed by the South 22.12% and the East 14.93% [3].

The direction of the restaurant business in 2017 is expected to continue to expand continuously, due to the changing consumption behavior [4]. The long term outlook for the restaurant sector also remains positive due to increasing urbanization, higher consumer disposable income, and the increased frequency of Thais to eat out. Furthermore, growing overseas study, international travel, internet usage, and social media have influenced many young Thais and

urbanites to transition from traditional open-air food stands to indoor restaurants, especially those located in retail malls. Kasikorn Research Center [5] reported that restaurant market value in 2018 should be at 411,000-415,000 million baht, expanding by 4-5 percent from 2017. This positive trend is due to an increasing number of restaurants in department stores and large retail stores. Additionally, the low barrier for entering the market leads to a highly competitive in this sector. New international chains and food outlets ranging from small street carts to five-star restaurants in some of the world's finest hotels are increasing regularly and located everywhere in Thailand [2]. As a consequence, competition in the Thai restaurant business market has become more intense because the number of new restaurants/restaurants has increased steadily [4].

Under the challenge situation, entrepreneur restaurants are inevitable to use a variety of strategies to gain a competitive advantage. The entrepreneurship theory of innovation identifies entrepreneurs as a crucial driver of economic development through the introduction of innovation [6]. Several studies of entrepreneurship in tourism and hospitality have scrutinized on entrepreneurial traits especially, passion; an encouragement to work with high effort [7]; self-efficacy [8]; a faith of having ability to successfully accomplish the duty of entrepreneurship [9], locus of control; a belief of outcomes are caused by own potentiality, effort, or competence [10], need for achievement; an ambition for fulfilment [11], and expectancy; a belief that an effort will result in the desired target [12]. Entrepreneurs with these developed traits have been divulged to challenge innovative behavior which leads to business success.

In an endeavor to develop innovation, it allows entrepreneurs to present new styles of restaurants which more diverse forms such as food truck, co-working space restaurant, foreign franchises, foreign brands and health food stores [4]. The strategies include introducing new food products, using online sales and online marketing, and branding that advertises not just the food but also a lifestyle. Restaurants compete on a variety of factors including price, food quality, service, trendiness, and food variety [2]. Utilization of technology and online media helps entrepreneurs reduce operating costs and reach customers more easily and specifically [4].

Therefore, entrepreneurs should adjust their strategies by offering new types of food to the market along with promotions in various forms, including choosing suitable locations that have not yet high competition for developing a business competitive advantage. Some reviews found that SMEs have a high percentage of failure (Bourne et al., 2002). The entrepreneurs' traits such as lack of leadership, resistance to change, and informal planning processes are the primary reasons for SME's failure. As such, SME entrepreneur is forced to seek various ways in which to improve and maintain a competitive advantage, such as innovation, increased productivity, and marketing. Innovation is also a key component of entrepreneurship, which is relevant when studying small independent restaurants as the owners of these businesses are also considered entrepreneurs [13]. Thus, following the entrepreneurship theory of innovation [6], the restaurant owners' entrepreneurial traits are also critical for the development and implementation of business innovations.

It is obviously seen that the Thai restaurant business trend has changed by adopting technology to help add the value of the product, which is in line with Thailand 4.0, a policy of the government. Promoting sales through online channels and direct delivery to consumers helps restaurants to expand the customer base and generate another revenue channel to improve restaurant performance [4]. Evidence suggests that restaurants can improve quality and reputation, cut costs, and increase sales and profits through 'innovation' [14]. A continuous innovation process helps restaurants heighten barriers to imitation, keeping their portfolio ahead of the competition which establishes a long-term competitive advantage [15]. Innovation strategies contribute to generating competitive advantages. Even, firms embrace innovation to gain a competitive advantage that will ultimately lead to superior performance; there is a significant gap in our understanding of how innovation affects performance in SME restaurants.

The past studies are not yet to examine innovations in the context of Thai SME restaurant businesses. There is also a gap of understanding linkages between entrepreneurial traits, innovation and restaurant performance. Through this approach, we will examine the association of these variables. The research results will reveal the importance of creating new strategic paradigms for Thai SME restaurants. This study will contribute to the developing literature on innovation in hospitality and entrepreneurship by deliberating entrepreneurial traits to include passion, self-efficacy, locus of control, need for achievement, and expectancy, then conceptualizing innovation management to cover product, process, organizational, and marketing innovations. Additionally, this study will contribute to an understanding of linkage among entrepreneurs 'characteristics, innovation management and restaurant output. From a practical standpoint, the research allows restaurant entrepreneurs to identify areas of business innovation and entrepreneurial capabilities that lead to restaurant success. Finally, the study contributes novel insights into innovation configuration for SME restaurants as a guideline for innovation development in an attempt to maintain business performance effectively.

2. LITERATURE REVIEWS

2.1 Entrepreneurial Traits

A growing body of recent academic research is spotlighting on specific personality traits of entrepreneurs. They may even be conjectured of entrepreneurial behaviors. The important traits which have been interested in several fields of research are

- *Passion*; is a mainstay of motivational rhetoric about entrepreneurship. Over the last two decades, entrepreneurship researchers have started to unpack the concept of entrepreneurial passion. Passion inspires people to work harder and with greater effect [7]. Vallerand et al. [16] suggested two main types of passion; obsessive passion (OP) refers to a controlled internalization of an activity in one's identity that creates an internal pressure to engage in the activity that the person likes, and harmonious passion (HP) refers to an autonomous internalization that leads individuals to involve in the activity that they prefer. For instance, Thorger & Wincent [17] find that entrepreneurial passion is greater among serial entrepreneurs than first-time entrepreneurs. They find entrepreneurs with two or more businesses have the highest levels of harmonious passion.

- *Self-efficacy*; is defined as a belief of individuals in their ability to make certain achievements [8]. Self-efficacy describes a person's "belief that he/she can perform tasks and fulfil roles, and is directly related to expectations, goals and motivation" [18]. Chen et al. [9] define a composite of self-efficacy toward five tasks: innovation, risk-taking, marketing, management, and financial control. They also find that business founders have a higher self-efficacy in innovation and risk-taking than non-founders. High self-efficacy correlates with work-related performance [19]. Utsch and Rauch [20] (2000) examine innovativeness and initiative as mediators of achievement orientation. Hallak, Lindsay and Brown's [21] found a significant positive relationship between the entrepreneur's ESE and enterprise performance with regards to profitability, sales, growth, and business success. Consistent with self-efficacy theory, empirical study found that the tourism entrepreneur's ESE regulates the ability of the entrepreneur to pursue opportunities, be persistent in overcoming failure, and be more confident to face challenges [9].

- *Locus of control*; another important trait in the entrepreneurship literature is a locus of control (LOC). A person with an internal LOC conceptualizes that their own decisions control their lives, while those with an external LOC believe the true controlling factors are chance, fate, or environmental features that they cannot influence. Rotter's theory [22] of social learning first introduced the LOC concept. Persons with internal LOC believe that they can influence outcomes through their own ability, effort, or skills, rather than external forces controlling these outcomes. Previous research has linked belief in internal control to the possibility of engaging in entrepreneurial activity [10]. Caliendo et al. [23] suggests that LOC can be more directly anticipated onto decision-making in the professional field. Overall, the LOC personality trait finds pervasive support and is rather comparable across types of entrepreneurs.

- *Need for achievement*; is a concept based on McClelland [11] "acquired-needs theory" and is one of the dominant needs affecting individual actions in a workplace context. The need for achievement refers to an individual's desire for significant accomplishment, mastering of skills, and attaining challenging goals. The concept was first introduced by Murray [24], and later developed and popularized by McClelland [11]. Many researchers have found that a high need for achievement predicts entry into entrepreneurship, although this finding is sometimes challenged in specific contexts. Frank et al. [25] conclude that the need for achievement selects individuals for entry into entrepreneurship. The meta-analysis of Collins et al. [26] finds that both projective and self-reported measures of achievement motivation predict entrepreneurial intentions and performance.

- *Expectancy*; is the belief or probability that an individual's effort will result in the desired goal being achieved. Expectancy theory was developed to explain work motivation and organizational behavior [27]. Expectancy theory starts with the concept of motivational forces that Vroom [28] expressed as an equation: $MF = V \times I \times E$, where V = valence, I = instrumentality and E = expectancy. Valence refers to the value that an individual places on the outcome of their efforts—such as the importance of financial rewards. Instrumentality refers to the belief that if an individual performs well, that they will actually receive the reward. Expectancy is the belief that increased effort will lead to increased performance i.e. if I work harder than this will be better. Instrumentality may be influenced by the environment; for instance, where taxation is prohibitively high, the individual may believe that their venture, even if successful, will not yield sufficient monetary rewards. Thus, Vroom's expectancy theory of motivation is not about self-interest in rewards but about the associations' people make towards expected outcomes and the contribution they feel they can make towards those outcomes.

2.2 Innovation management

The conception of innovation is basically the newest generation and development of an idea for firm success [29]. Innovation is a process of converting opportunities into new ideas and putting them into widespread practice [30]. It

has additionally been defined as an innovation that involves new administrative procedures, new marketing concepts, new strategies, and new organization [31]. Innovations play an important role in providing a strategic orientation to solve the problems and build favorable long term position over competitors [32].

According to Schumpeter [33], innovation is a driver of economic development. It is a vigorous process in which the old technologies are replaced by the new one. He proposed a list of five types of innovations; introduction of new products, introduction of new methods of production, the opening of new markets, development of new sources of supply for raw materials or other inputs, and creation of new market structures in the industry. Riivari et al. [34], an innovation of organization consists of five dimensions: product innovation, market innovation, process innovation, behavioral innovation, and strategic innovation. It seems that the term innovation relates not only to products and processes but also to marketing and organization [35]. However, four different innovation types are introduced in the Oslo Manual; product innovation, process innovation, organizational innovations, and marketing innovation [36].

Product innovation relates to market offerings such as new products, new services or new programs [37]. In addition, a product innovation involves technical specifications, materials and components, incorporated software, user-friendliness or other functional features therefore; product innovations may be based on new knowledge or technologies or on new uses or combinations of current knowledge or technologies [36]. Furthermore, Kahn [36] stated that product innovation is normally distinguished into seven elements: cost reduction, product improvement, line extensions, new markets, new uses, new category entries, and new-to-the-world products.

Process innovation refers to improvements in a method or process, such as faster processing, higher throughput or lower costs [37]. Savitz, Kaluzny, & Kelly [38] added that process innovation should be a novel changes to the act of producing or delivering the products which allow significantly increase the value delivered to the stakeholders. Originative areas of process innovation include production systems, service delivery systems and organizational processes [37].

Organizational innovations refer to the implementation of new organizational methods. These can be changes in business practices, in workplace organization or in the firm's external relations [36]. Thus organizational innovations are highly associated with all the managerial efforts including renewing the organizational procedures, coordination, collaboration, information sharing practice and knowledge sharing and learning [39]. Organizational innovations tend to increase corporate administration for instance by reducing administrative and transaction costs, improving job satisfaction, and reducing supply costs, etc. [36].

Marketing innovation implicates the practice of new marketing methods. It may include new ways of promotional endeavors which contribute to arouse customers' demand by creating awareness, brand recognition, and product uniqueness [37]. OECD [36] also explained that marketing innovations can include modification in product design and packaging, adjusting product promotion and placement, and changing good and service price.

In fact, Innovativeness is a complex phenomenon, therefore it is not easy for most organizations to achieve fruitful innovation [40]. Innovation and continuous development are vital fundamental to elevate organizations' circumstances to a superior competitive surrounding.

2.3 Restaurant performance

The restaurant sector is a significant contributor to the tourism industry; however, its success is dependent on the performance of the small, independently owned businesses that dominate the sector. The records of small independent businesses normally are unattainable due to privacy issue. The reliable measurement methods in small business research which is widely acknowledged is a subjective measure [21]. Therefore, in this study, the author operationalized firm performance based on a scale developed by Kropp, Lindsay, and Shoham [41] which captured the restaurant owner's subjective assessment of their firm's profitability, the volume of sales, growth, and achieving expectations.

Drawing on the literature on entrepreneurship, innovation, hospitality, and restaurant management, this study adopts an integrated framework to examine the drivers of performance in restaurant firms.

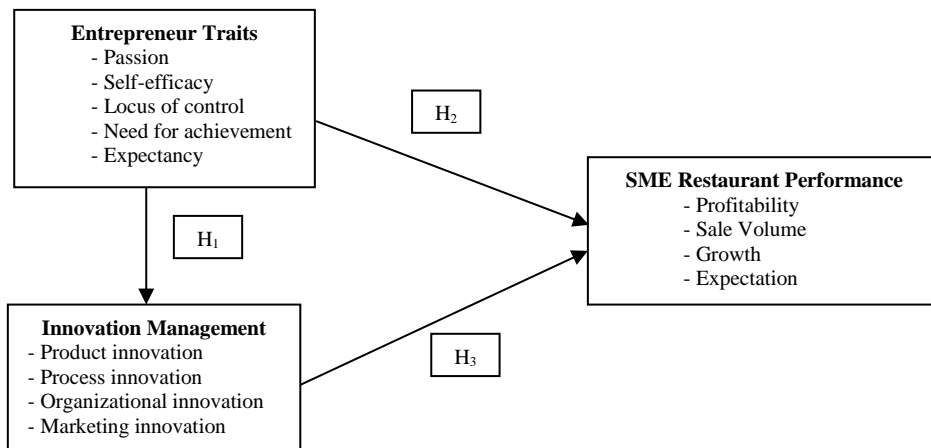


Figure 1 Integrated conceptual model of SME restaurant performance

3. RESEARCH METHOD

3.1 Data Collection

According to the Department of Business Development [4], there are 11,912 restaurant SMEs in Thailand. The highest proportion, 43.72% which is equivalent to 5,208 restaurants, is the restaurants located in Bangkok, the capital city of Thailand. Bangkok is the most crucial economic and tourist area. It is also a target destination for Thai and foreign tourists [4], so the study area of this paper will be focused solely on Bangkok. Drawing on the statistic figures, the population of this study will be 5,208 entrepreneurs who operate restaurant SMEs in Bangkok, Thailand. Based on Yamane [42] for a 95% confidence level with ±6% precision size of the sample should be 264. However, the sample size of at least 300 is recommended and each variable should have at least 5 to 10 observations [43]. 2013). As Thailand has a great number of restaurants located all over the city, it is rational to employ the multistage area sampling to collect data from the entrepreneurs who operate the restaurant within a cluster geographic area. Multistage area sampling involves using a combination of two or more probability sampling techniques [44]. Bangkok is divided based on geographic area into 50 districts and then are grouped based on authority area into 6 groups [45], hence the first stage of sampling will be a random sampling one district from each group. In order to get the total number of a sample at 300 entrepreneurs, the number of 50 samples will be assigned to each random district. Then, the second stage will be collecting data from 50 entrepreneurs who operating the SME restaurants in the main sub-districts of each random district. The SME restaurants mean a small and medium enterprise restaurant which has a registered capital ranges between 1 - 5 million baht [3]. In order to get the information from both small and medium sizes of the restaurant at an equal proportion of numbers, the author will collect data from 150 entrepreneurs of each size of restaurants. The detail is shown in table 1.

Table 1 Determining Number of Samples

Bangkok Authority Based Groups	No. of Districts in the Group	Random District of Each Group	No. of Samples of Each Group
1. Central	9	Huai Khwang	50
2. South	10	Wattana	50
3. North	7	Chatuchak	50
4. East	9	Bang Kapi	50
5. North Krungthon	8	Klong San	50
6. South Krungthon	7	Bang Chee	50
Total	50		300

3.2 Measurement of Variables

This research is survey research based on a quantitative approach. A focal point is on examining the relationship among entrepreneurial traits, business innovation management and restaurant performance. The study will cover five important traits of entrepreneurs; passion [7], self-efficacy [8], locus of control [10], need for achievement [22], and

expectancy [11], and four different innovation types which are introduced in the Oslo Manual; product innovation, process innovation, organizational innovation, and marketing innovation[35], and four assessment of restaurant performance; profitability, volume of sales, growth, and achieving expectations according to the approach of Kropp, Lindsay, and Shoham [41].

The tools used in this research are a self-administered questionnaire. To construct a questionnaire, the author reviewed several works of literature. A questionnaire was evaluated a content validity at the item development stage by using the index of item-objective congruence (IOC) [46]. Several competing objectives are provided for each item. Then, three content experts rate items [44]. Those experts come from the restaurant business. The index result equals to +1. It means that the items are only measuring the correct objective. Additionally, measuring reliability is conducted by using Cronbach’s alpha coefficient; a measure of scale reliability to test the internal consistency of a set of items in the questionnaire as a group [47]. If the alpha value is higher than 0.70, it means that the scale measurements in a questionnaire have an acceptable level of reliability [48].

For details of research tools, section I is about personal information of the respondents. The questions in this section are demographic variables which relate to the respondents’ own characteristics, backgrounds, and attributes [49]. The important demographic variables used in this study are gender, age, education, and a number of years in the restaurant business. All questions are nominal and ordinal scales. Section II involves the opinion of the respondents towards entrepreneurial traits. The questions in this section focus on the five following traits; passion [7], self-efficacy [8], locus of control [10], need for achievement [11], and expectancy [12]. All items measure the level of agreement with a given statement of entrepreneurial traits and are assessed on a five-point Likert scale with 5 = strongly agree and 1 = strongly disagree. Section III is concerned with the opinion of the respondents towards innovation management. The questions in this section are developed from the Oslo Manual: Guidelines for collecting and interpreting innovation data [35]. All items measure the level of agreement with a given statement of innovation management adopted in SME restaurant and are assessed on a five-point Likert scale [50] with 5 = strongly agree and 1 = strongly disagree.

Finally, section IV is about the opinion of the respondents towards the restaurant performance. The questions in this section are developed from Kropp, Lindsay, and Shoham [41]. All items measure the level of agreement with a given statement of restaurant performance and are assessed on a five-point Likert scale with 5 = strongly agree and 1 = strongly disagree.

3.3 Data Analysis

The data from the survey is formulated and analyzed. Exploratory Factor Analysis (EFA) using Principal Component Extraction and Varimax (Orthogonal) rotation was applied on entrepreneurial traits, innovation management and restaurant performance variables. All constructs bolstered reliability as Cronbach’s alpha values were above the recommended lower limit of 0.6 [51] (Table 2). All item loadings inside each block were higher than the minimum threshold of 0.4 [52]. Eigenvalues were greater than 1. Total variance explained was above 60%. Additionally, KMO was higher than 0.5, and Bartlett’s Test of sphericity was small value ($p < 0.05$), indicating that factor analysis is useful with the data (Table 3 to 5).

Table 2 Cronbach's Alpha Reliability

Construct	Cronbach’s α
Entrepreneurial traits	0.734
Innovation management	0.805
Restaurant performance	0.798

Table 3 Descriptive statistics and Rotated Component Matrix for Entrepreneurial traits

Entrepreneurial traits	Mean	Component				Communities
		Factor 1 LN	Factor 2 EF	Factor 3 PS	Factor 4 SE	
10. I want to achieve high business skill	4.10	0.901				0.969
13. I participating in a training program in expecting to become a successful entrepreneur	3.83	0.895				0.913
14. I focus on customer-oriented in expecting for customer retention	3.77	0.838				0.862
15. I develop a reward system to gain employee loyalty	3.87	0.736				0.926
11. I want to achieve leadership goal	3.70	0.722				0.778
12. I want to attain a business goal	3.83	0.683				0.791

3. I have a passion to work with an employee for business alive	3.63		0.859			0.895
9. I believe that my effort effect on a business goal	3.37		0.857			0.784
5. I can work under pressure and conflict.	3.83		0.752			0.881
16. I put marketing effort in expecting business growth	3.60		0.599			0.875
1. I have a passion for being entrepreneurs and operating my business	4.20			0.968		0.787
4. I have a passion to put effort to develop my business growth plan	4.17			0.920		0.858
2. I have a passion to service my customers	4.33			0.911		0.821
8. I can forecast the market trend of my business	3.63				0.826	0.815
7. I can motivate an employee to put effort into work	3.80				0.770	0.715
6. I can develop a new product/ service to fulfil customers' needs	3.80				0.745	0.719
Eigenvalue		7.902	2.715	1.651	1.121	
% of Variance		49.389	16.969	10.320	7.007	
Total variance explained		83.685%				
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.726				
Barlett's Test of Sphericity:						
Approx. Chi-Square			5752.470			
D.F.			120			
Significance			.000			

For entrepreneurial traits (Table 3), all twenty items were analyzed. However, in order to achieve the Cronbach's Alpha minimum requirement of 0.7, the four items needed to be deleted; I believe that my ability influence on business operation, I believe that my skill influence on innovative product and service, I believe that my potential effect on leadership skill and I want to achieve customer satisfaction. The rotation converged in six iterations and resulted in four components. These components were named and abbreviated as Locus of control, Need of achievement, and Expectation (LN), Effort (EF), Passion (PS), and Self efficacy (SE).

For innovation management (Table 4), all twenty items were analyzed and met the Cronbach's Alpha minimum requirement of 0.7. The rotation converged in nine iterations and resulted in five components. These components were determined as Marketing innovation (MKI), Product innovation (PDI), Organizational innovation (OGI), Technical innovation (TCI), and Process Innovation (PCI).

Table 4 Descriptive statistics and Rotated Component Matrix for Innovation Management

Innovation Management	Mean	Component					Communities
		Factor 1 PDI	Factor 2 PCI	Factor 3 OGI	Factor 4 TCI	Factor 5 MKI	
18. Advertise through social media and application; Facebook, Instagram, etc.	4.13	0.834					0.806
19. Develop a membership system and website to provide benefits for customers.	3.93	0.812					0.798
17. Make a new attractive menu book, take better pictures, clear descriptions with an international language, etc.	4.17	0.782					0.726
1. Increase food quality by using higher quality material, putting more herb and seasoning, etc.	4.47	0.756					0.805
2. Introduce new types of food to serve target customers.	4.20	0.754					0.803
20. Improve the atmosphere and the environment of the restaurant a unique and fantastic experience to eat in.	3.80	0.684					0.592
5. Develop/improve delivering service.	3.63		0.783				0.738
16. Develop a new appearance of food such as size, color, cut style, and flavor, etc.	3.57		0.763				0.626
9. Use new machinery and tools to assist inventory control.	3.73		0.628				0.658
3. Offer a new variety of sauces and seasoning.	3.77		0.621				0.827
4. Improve delivering a speed of food from the kitchen to the customer dining table.	3.80		0.583				0.700

12. Set a new employee dress code to create a favorable first impression in front of the restaurant.	3.50			0.775			0.716
14. Restructure employee compensation program such as wage, allowance, bonus, etc.	3.57			0.658			0.590
11. Set new safety and sanitation regulations in the kitchen such as using disposable gloves, wearing a hair covering, etc.	3.80			0.651			0.656
13. Improve the restaurant communication between chef and waiter/waitress.	3.67				0.782		0.743
15. I create a workplace reward system in expecting for employee loyalty.	3.93				0.773		0.771
7. Determine new value-adding activities in the cooking processes.	3.50				0.513		0.712
6. Find a new supplier for better material quality, cheaper price and credit term.	3.83					0.886	0.887
8. Use new techniques to assist in food preparation.	3.97					0.667	0.808
10. Improve a new order system.	4.10					0.566	0.613
Eigenvalue		6.852	2.532	2.253	1.687	1.249	
% of Variance		34.258	12.659	11.263	8.436	6.244	
Total variance explained		72.860%					
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.658					
Barlett's Test of Sphericity: Approx. Chi-Square D.F. Significance		4943.464 190 .000					

The last variable was restaurant performance (Table 5). All four items were analyzed. Anyway, in order to maintain the Cronbach's Alpha minimum requirement of 0.7, one item which was "Your restaurant can success as your expectation needed to be deleted. The rest three items were assigned to be in only one component. Thus, the rotation could not execute. This component was named similar to the original component. It was abbreviated as RP.

Table 5 Descriptive statistics and Rotated Component Matrix for Restaurant Performance

Restaurant Performance	Mean	Component	Communities
		Factor 1 RP*	
3. Your restaurant can earn growth	3.67		0.714
1. Your restaurant can gain profit	4.33		0.898
2. Your restaurant can increase sale volume	4.10		0.829
Eigenvalue		2.440	
% of Variance		81.349	
Total variance explained		81.349%	
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.675	
Barlett's Test of Sphericity: Approx. Chi-Square D.F. Significance		576.620 3 0.000	

*Only one component was extracted, so cannot be rotated.

4. RESULTS

In describing demographic data, descriptive statistics analysis was adopted. Most of the respondents were female (65%). Their ages ranged mostly from 30 to 49 years (68%). Most of them held a bachelor degree (57%). They have been working in the restaurant business for about 3-10 years (72%).

Table 6 The relation between entrepreneurial traits, innovation management and restaurant performance using multiple regression analysis

Hypotheses	Independent Variables	Dependent Variable	β	t	p	Test result
H ₁ : Entrepreneurial traits are positively related to innovation management		Constant	1.579	19.173	.000*	Not Rejected
	Entrepreneurial traits	Innovation management				
	- LN		.190	10.075	.000*	Not Rejected
	- EF		.209	9.740	.000*	Not Rejected
	- PS		.151	8.697	.000*	Not Rejected
	- SE		.031	1.289	.198	Rejected
R = 0.880 Adjusted R Square = 0.772 F _(4, 295) = 253.969 p = 0.000						
H ₂ : Entrepreneurial traits are positively related to restaurant performance		Constant	.997	7.751	.000*	Not Rejected
	Entrepreneurial traits	Restaurant performance				
	- LN		.420	14.250	.000*	Not Rejected
	- EF		.224	6.692	.000*	Not Rejected
	- PS		.098	3.609	.000*	Not Rejected
	- SE		.053	1.395	.164	Rejected
R = 0.746 Adjusted R Square = 0.743 F _(4, 295) = 216.893 p = 0.000						
H ₃ : Innovation management is positively related to restaurant performance.		Constant	-.797	-5.093	.000	Not Rejected
	Innovation management	Restaurant performance				
	- MKI		.268	7.536	.000*	Not Rejected
	- PDI		.159	4.146	.000*	Not Rejected
	- OGI		.120	3.636	.000*	Not Rejected
	- TCI		.389	10.897	.000*	Not Rejected
	- PCI		.319	9.738	.000*	Not Rejected
R = 0.793 Adjusted R Square = 0.789 F _(5, 294) = 224.749 p = 0.000						

Note: *significant p at 0.05

In determining, the correlations between two or more variables having cause-effect relations, the multiple regression models are appropriated to employ [53]. The hypotheses test showed the relation of three constructs; entrepreneurial traits, innovation and restaurant performance as illustrated in Table 6.

The first test identified that entrepreneurial traits are positively related to innovation management (H₁). The detail of independent variables indicated that LN ($\beta=.190$, $t=10.075$, $p < 0.05$), EF ($\beta=.209$, $t=9.740$, $p < 0.05$), and PS ($\beta=.151$, $t=8.697$, $p < 0.05$), significantly impacted innovation management. Nevertheless, SE ($\beta=0.031$, $t=1.289$, $p > 0.05$) was not significant.

The second result pinpointed that entrepreneurial trait are positively related to restaurant performance (H₂). The detail of independent variables indicated that LN ($\beta=.420$, $t=14.250$, $p < 0.05$), EF ($\beta=.224$, $t=6.692$, $p < 0.05$), and PS ($\beta=.098$, $t=3.609$, $p < 0.05$), significantly impacted restaurant performance. However, SE ($\beta=0.053$, $t=1.395$, $p > 0.05$) was not significant.

The final test described that that innovation management is positively related to restaurant performance (H₃). The detail of independent variables indicated that MKI ($\beta=.268$, $t=7.536$, $p < 0.05$), PDI ($\beta=.159$, $t=4.146$, $p < 0.05$), OGI ($\beta=.120$, $t=3.636$, $p < 0.05$), TCI ($\beta=.389$, $t=10.897$, $p < 0.05$), and PCI ($\beta=.319$, $t=9.738$, $p < 0.05$), significantly impacted restaurant performance.

5. DISCUSSION AND CONCLUSION

In conformity with the results, the variable of self-efficacy which is one of the entrepreneurial traits would not relate to the innovation management and restaurant performance. Figure 2 exhibits the model of the results. This finding is irreconcilable with a view of Chen et al. [54] that elucidate self-efficacy involved with five tasks: innovation, risk-taking, marketing, management, and financial control. It is dissimilar to ideas of many researchers who postulated that entrepreneurs attempt to extract their own specific ability to meet the innovative challenges in designating new products and markets [55]. Notwithstanding, most of the entrepreneurial traits; locus of control need of achievement, and expectation (LN), effort (EF), and passion (PS), are associated with the performance of SME restaurants in Thailand. This is in compliance with Hallak et al., [19] who believes that entrepreneurial characteristics have a major influence not only on the directions and strategies of the small business but also on the performance. Renko et al., [56] described a drive of entrepreneurship. People start their own business as a professional career if they recognize the value of obtaining a profit in harmony with their demand for accomplishment.

According to the entrepreneurship theory of innovation [57], the entrepreneurial traits of restaurant owners are influenced by business innovation development and application. An organization with innovation ability has a competitive advantage because innovation capability plays as the main component for a firm success [58].

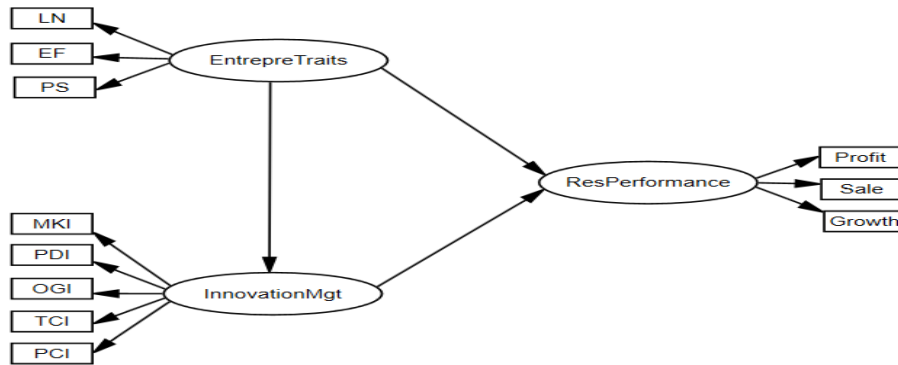


Figure 2 The relation model of entrepreneurial traits, innovation management and SME restaurant performance

Further to this, all constituents of innovation management; marketing innovation (MKI), product innovation (PDI), organizational innovation (OGI), technical innovation (TCI), and process innovation (PCI) are related to the performance of SME restaurants in Thailand. As stated by Hadjimanolis [59], it is critical to understand the entrepreneur's role in relation to developing firm-level innovations for competitiveness. Okwiet & Grabara [60] studied on innovation's influence on SME's enterprise activities. They pointed out the essence of innovation and its impact on development and competitive position of companies. Besides, Ottenbacher & Harrington [13] mentioned that a consistent innovation process boosts up restaurants long-term competitive advantage and overtake their competitors.

Upon conclusion, the level of innovation diverges significantly among the businesses so that innovation strategies can have various effects on performance [61]. This is vitally important that the SMEs restaurant entrepreneurs would take cognizance of the research finding and encourage themselves to improve their personal traits and innovation skills to cope with business challenges under a dynamic environment.

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Two Dimensional Importance and Performance Analysis on Green Supply Chain Management: A Strategic Framework for Hotel Restaurants

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Abstract

Integrating environmental thinking into supply-chain management is crucial for business sustainability. Thailand has been acknowledged for their engagement to environmentally-friendly policies and has been supporting the operation of green hotels around the country which can provide visitors with an unforgettable impression of green food and service. Therefore, this study interrogated Thai hotel restaurant within the sphere of green supply chain management. Based on literature reviews, a personal interview with hotel chefs in conjunction with an adaptation of a formerly conducted study in Wang et al. (2013), the green restaurant management standard in line with green supply chain management was manipulated and classified into nine sub-facets; green food procurement, green menu planning and cooking, green package for takeout, green kitchen environment, green dining environment, green cleaning and post-treatment, green management policy, green customer education, and green corporate social responsibility. An importance-performance analysis (IPA), a conceptual model underlies the multi-attribute is applied to analyze the performance of hotel restaurant. The analysis concentrated on two dimensions of predetermined green supply chain management, the importance and performance. The manifestation of finding was elucidated on two-dimensional grid. The further management implication was irradiated accordingly to the grid with sub-facets of hotel restaurant green supply chain management.

Keyword: green supply chain management, hotel restaurant, Thai hotel industry, an importance-performance analysis (IPA)

Development of a Model of Factors Influencing Thai Exporting Companies' Strategic Performance

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Abstract

Exports can play an important role in creating economic growth in Thailand. Therefore, in order to develop and increase export efficiency, evaluating the determinants of business strategy is an important step towards increasing market potential and competitiveness at national and global levels, which ultimately leads to the future success of Thai exporting companies. The objectives of the study are to develop and verify a relational model of factors influencing Thai exporting companies' strategic performance. This present research and development survey used questionnaires to gather data from Thai exporting companies in various industries. A multi-level structural equation model was used to construct the model. The results showed that the model was consistent with the empirical data, with a chi-square value of 99.671, a degree of freedom of 97, and a p-value of 0.154. This pointed out that hypotheses of the developed multilevel structural equation model could predict the factors influencing Thai exporting companies' strategic performance at individual and organizational levels with 54.5 percent and 58.6 percent predictive capacity respectively.

Keywords: Multi-level structural equation model, Thai exporting companies, Strategic performance

1. INTRODUCTION

Exports can play an important role in creating economic growth in Thailand. According to Bank of Thailand (2016), Thai exports currently represent 75% of the gross domestic product (GDP) of the country. The GDP can be divided into household expenditure of 54 percent, business investment of 14 percent, government spending of 25 percent, exports of 75 percent, and imports of 67 percent, clearly indicating that exports of goods and services are a key component of GDP in Thailand. Therefore, in order to develop and increase export efficiency, evaluating the determinants of business strategy is an important step towards increasing market potential and competitiveness at national and global levels, which ultimately leads to the future success of Thai exporting companies. However, it can be seen that each business strategy has its own importance. Some theorists, such as Lovelock and Wirtz (2007) addressed that other additional related factors are Government Policies, Social Changes, Business Trends, Advances Information Technology and Globalization. As a consequence, it seems that every company needs to adapt to rapidly changing situations, especially as it relates to coping with regional business competitors in ASEAN, which will have an additional effect on business survival and the overall business achievements.

According to the information mentioned above, the researcher was interested in developing the causal factors affecting the strategic success of Thai exporting businesses and explore the causal relationship model using the multilevel structural equation modeling (MSEM) technique. The results can be used as a guideline for helpful to executives and entrepreneurs in making organizational decisions and determining business strategies according to current economic and social conditions and also useful for increasing business capacity and competitiveness at the national and regional levels, which ultimately leads to the success of Thai exporting companies in the future.

2. RESEARCH OBJECTIVE

To develop and verify a relational model of factors influencing Thai exporting companies' strategic performance.

3. LITERATURE REVIEW

The research studies and literature related to the present research were thoroughly reviewed as follows.

The concept of business strategy is associated with the following 5 main elements: 1) marketing (M), 2) reliance (R), 3) intellectual capital (IC), 4) modern organizational management (MOM), and 5) competitive advantage (CA).

The theoretical concepts of marketing (M) is a corporate philosophy that questions the orientations of companies. Management believes that the secret to achieving its organizational objectives is to make the business more effective in developing, providing and communicating consumer service to its identified target customers than competitors. According to American marketing association (2017), Marketing is "the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large". In addition, marketing, which is associated with using the four major elements (4Ps), comprising product, price, place, and promotion, to serve the needs of customers (Kotler, 2000) and increase purchasing decisions. Besides, it is thought by some theorists, for example, The American marketing association (2017) pointed out that 4P's marketing was reviewed as follows. Firstly, a product defined as a set of attributes (features, functions, benefits, and uses) capable of exchange or use; typically a mixture of tangible and intangible types. Then, price refers to the amount of money required for the purchase of a specified quantity of goods or services. This is the price that a consumer has to pay to purchase a product. Next, place/distribution is characterized the act of marketing and delivering products to consumers. It is used to define the scope of a product's market exposure. Lastly, according to the National Advertisers Association cited in the American Marketing Association (2017), marketing promotion involves strategies that promote short-term buying, impact trail, and purchase quantity, and are very meaningful in amount, share, and benefit. This mix of product, price, distribution and promotional efforts is known as the "Marketing mix". A marketing mix is an important tool for the development and implementation of the right marketing approach by effective tactics.

In business environment, consumer experience will be a primary force in today's highly competitive environment in deciding how this transformation will occur. Reliance (R) or trust is perceived as an important aspect of business relationships. In addition, trust may support companies by reducing their transaction costs, increasing their flexibility and efficiency, and allowing them to more effectively model their future marketing plans or strategies (Gambetta, 2000, Chen and Dhillon, 2003, Nooteboom, 2003). Therefore, reliance enhancement, which deals with building reliance and trust to avoid brand-switching due to loss of brand confidence in 3 perception areas: creditability, ease of service, and risk that require the application of risk management measures, especially in terms of foreign exchange rates (Yousafzai et al., 2003). According to Maathuis et al., (2004), the fundamental element in achieving the objectives of an individual, an organization, a political party, or a media product, it is known as credibility. Significantly, there are some of the evidence is provided by a review of the reliability relationship with consumer behavior in lookout. It seems that explains the impact of credibility on consumer value, satisfaction, and loyalty. It is thought by some theorists, for example, Careras et al. (2013) that credibility can affect behavior and enhance stakeholder value. Some theorists such as Ghorban and Tahernejad (2012) think that the company's credibility influences customer satisfaction positively. Additionally, according to Gefen and Straub, 2000, Gahtani, 2001, the degree to which a person believes that it would be at no cost to that individual to use an exacting method is known as perceived ease of use. On the other hand, the perceived ease of use has a negative impact on the trust of the system with respect to the potential risk (Salo & Karjaluoto, 2007). Moreover, risk management involves defining, assessing and taking steps for an organization or individual to reduce or eliminate the risk of loss. In addition, measuring and controlling exposure to exchange rate risk is significant in reducing the company's vulnerability to exchange rate fluctuations, which could have a negative impact on profit margins and asset value. A strategy for risk management contributes to the implementation of methods for risk minimization. However, with regard to increasing economic competition and reducing uncertainty, organizational risk management can lead to trust and confidence in customers, resulting in no brand switching (Yousafzai et al., 2003).

According to Edvinsson and Malone (1997), Intellectual Capital (IC) is known as the sum of human capital and structural capital, including organizational technology applied experiences, customer relationships and professional skills. In addition, intellectual capital is intangible assets that do not have a physical existence but are still valuable to the company. In other words, it is possible that intellectual capital would be the market assets, human-centered

assets, assets of intellectual property, and assets of infrastructure (Brooking, 1996). Most importantly, Edvinsson and Malone (1997), and Brooking (1997) argues that intellectual capital (IC) is the similar group categorizations including not only human capital but also structural capital. Nevertheless, intellectual capital development, which is involved with adding values to intangible assets, using human capital and structural capital to create an innovation with competitive advantage (Teece, 2002), and using relation capital to promote organizational competitiveness (Seleim & Khalil, 2011).

In term of definition, modern organizational management (MOM) which includes promoting learning and creativity among organizational members, using existing resources to maximize work efficiency and effectiveness, developing organizational members to have comprehensive professional knowledge and an ability to adapt to changing situations that is necessary for organizational development and advancement, and applying the learning organization concept of Senge (1990) to develop personal mastery, mental model, shared vision, team learning, and system thinking.

Significantly, understanding the competitive advantages of strategic planning has become an important area for strategic management research. The advantage that an organization seeks to be more profitable than its competitors is known as the competitive advantage (CA). Moreover, in terms of competitive advantage, Porter (1985) argues that a competitive advantage arises essentially from the value that a company can create for its customers, which exceeds the cost of creating the company. To be competitive in the business environment and transfer this information to its intended target market, a company must be able to demonstrate a greater comparative or differential quality than its rivals. According to Stonehouse et al (2004), the main objectives of any business strategy is to gain sustainable competitive advantage. Some theorists such as Danthamrongkul (2003) think that organizations need to develop competitive comparison measures based on the competitive advantage strategy theory applied by Porter (2005), which includes efficiency, quality, innovation and customer responsiveness. To conclude, the competitive advantage is very critical for the organization's future performance. This will provide an opportunity for the organization to generate higher short-term and long-term profits than competitors. Furthermore, to improved quality and productivity with tendency of globalization and economic competition, the organization's successful business strategy is the source of competitive advantage, which results in market success and overall business efficiency.

4. RESEARCH METHODOLOGY

Research design: The present study was designed as a survey and development research which used questionnaires to collect data and employed multilevel structural equation modeling to develop a model.

4.1 How to select the research area and data providers: This research area focuses on Thai exporters. The number of Thai exporters was large and not properly collected due to the frequent mobilization of exporters. According to Billingsley (1995), the formula of sample size was used to calculate. In the details, the proportion of sample was set at 50% or 0.50 with a reliability value of 95% and an error allowance of 0.05 and consisted of a 384 participants sample size. The questionnaire was examined by three experts in order to determine the validity of the content. The Item-Objective Congruency Index (IOC) was used to select 0.5 and above IOC questions (Tirakanun, 2007). According to Cronbach (2003), the reliability analysis showed that the alpha coefficient was valued at 0.81 to 0.96 of the level of validity, which met the threshold criterion of 0.7. The design of the questionnaire adopts Likert's five-rating scale pattern of response, ranging from "very important"/ "very satisfactory", "important"/ "satisfactory", "neutral", "unimportant"/ "dissatisfactory", "lesser importance"/ "lesser satisfaction, and scoring from 5 to 1 as the basis of the ensuring statistical analysis.

4.2 How to collect data: in this research, the multi-stage random sampling (Cochran, 1977) was used in dividing Thai export businesses into 4 main groups: (1) exporters of agricultural and livestock products, (2) exporters of agro-industrial products, (3) exporters of industrial products, and (4) exporters of mineral and fuel products, according to ministry of commerce (2017). Then, a simple random sampling was used to select 384 exporters that could easily be accessed from four main groups of ninety-six exporters, each with a quota sampling. Three representatives from each exporter were required to complete the questionnaires. Therefore, a total of 1,152 representatives ($3 \times 384 = 1,152$) from 1,152 Thai export company were the participants of this study. The details are presented in Table 1.

Table 1. Population and samples classified by groups of Thai export businesses

Thai export businesses in Thailand	Samples (Organizations)	Participants (Representatives)
1. Agricultural and livestock products	96	288
2. Agro-industrial products	96	288
3. Industrial products	96	288
4. Mineral and fuel products	96	288
Total	384	1,152

Source: Ministry of Commerce (2017)

From the table 1, this research focuses on multilevel structural equation model analysis therefore the sample size is very important. If the sample size is too small, the reliability value measured by correlation coefficient will be low. The sample size in this research, which is consistent with Muthen (2004), who suggests that a sample size of at least 50 groups is appropriate for a multilevel structural equation model analysis. It is also consistent with Tabachnick and Fidell (2013), who indicate that the sample size should be large enough to make the standard error smaller (Snijders & Bosker, 1999). Each sample group should have at least 2 members (Yingwana et al., 2013). The samples consisted of 384 groups of three participants in this study. The researcher divided the analysis of the data into two levels: 1) micro-level or within-group (individual) and 2) macro-level or between-group (organization).

4.3 Data Analysis: after the data were received, the researcher recorded, checked, and coded the data by using statistical computer software for a social study. The descriptive statistics used to analyze social science data such as frequency, percentage, mean, standard deviation. As regards the development of causal factors affecting the strategic success of Thai exporting companies and the exploration of the causal relationship model using a multi-level structural equation modeling (MSEM) technique that integrated a multi-level analysis technique with a causal relationship analysis method to examine hierarchical data (Heck & Thomas, 2009). The within-group and between-group models were evaluated together as a multilevel model. The relevant statistics, including Maximum Likelihood with Robust Statistics (MLR), Chi-square, Standard Error, Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and Standardize Root Mean Square Residual (SRMR), were computed to examine how well the model fit the empirical data (Morris, 1995; Hu & Bentler, 1999, Ullman, 2001, Goldstein, 2003, Heck & Thomas, 2009, Muthén and Muthén, 2010).

5. RESEARCH RESULTS

Demographic information of the respondents: The majority of respondents were female (62.5%). About 35% of respondents were from the age group of 31-40 years old (36.50%), mostly marital status single (48.5%), More than half of respondents had university degrees (70.2%). 49.5% of respondents indicated they worked at operational level, about 30% reported of working experience of 6-10 years (32.4%). The demographic characteristics are shown in Table 2.

With respects to the analysis of variable correlation is concerned, the independent variable has no or low relationship to others. Besides, the analysis will address the issue of multi-collinearity. To check correlation between the independent variables, high correlation among the independent variables is not found. All of the relationships between the variables of individual levels and organizational levels were not more than 0.80 (Prasit-rathsint, 2008). The relationships between the variables of individual levels, at a statistical significance level of 0.05, which were used to assess the four elements of the strategic success of Thai exporting companies which consisted of marketing (M), reliance (R), intellectual capital (IC) and strategic success (SG (A)) the variables with $r=0.134-0.628$. The details are presented in table 3. Furthermore, the variables of organizational levels, at a statistical significance level of 0.05 which were used to assess the three elements of the strategic success of Thai exporting companies which consisted of modern organizational management (MOM), competitive advantage (CA), and strategic success (SG (B)) the variables with $r=0.123-0.685$. The details are presented in table 4. In conclusion, as a result, all analysis of the multi-collinearity problem is completely avoided.

Table 2. Demographic information for the respondents (n=1,152)

Variables	Categories	Percentage
Gender	Male	37.50
	Female	62.50
Age	≤ 30	25.60
	31-40	36.50
	41-50	34.30
	50 +	3.60
Marital status	Single	48.50
	Married	40.10
	Divorced/Separated/Widowed	11.40
Education	Lower than Bachelor	29.80
	Bachelor	55.30
	Higher than Bachelor	14.90
Position	Operation	49.50
	Primary management	36.40
	Manager	14.10
Experience	≤ 5	18.60
	6-10	32.40
	11-15	29.50
	15 +	19.50

Table 3. The relationships between the variables of individual levels (*P<0.05)

Variables	M				R			IC			SG								
	M1	M2	M3	M4	R1	R2	R3	IC1	IC2	IC3	SG1	SG2	SG3	SG4	SG5	SG6	SG7	SG8	SG9
Pearson Product Moment Correlation Coefficient: r (Individual levels)																			
M1	1.000																		
M2	0.525*	1.000																	
M3	0.338*	0.383*	1.000																
M4	0.468*	0.411*	0.345*	1.000															
R1	0.198*	0.185*	0.171*	0.600*	1.000														
R2	0.195*	0.326*	0.411*	0.287*	0.453*	1.000													
R3	0.263*	0.234*	0.200*	0.383*	0.418*	0.574*	1.000												
IC1	0.403*	0.400*	0.158*	0.225*	0.214*	0.275*	0.413*	1.000											
IC2	0.303*	0.454*	0.316*	0.138*	0.182*	0.183*	0.392*	0.337*	1.000										
IC3	0.253*	0.324*	0.279*	0.184*	0.177*	0.246*	0.248*	0.493*	0.628*	1.000									
SG1	0.282*	0.415*	0.348*	0.240*	0.232*	0.369*	0.229*	0.593*	0.447*	0.400*	1.000								
SG2	0.417*	0.282*	0.306*	0.147*	0.167*	0.233*	0.210*	0.221*	0.341*	0.214*	0.344*	1.000							
SG3	0.377*	0.381*	0.251*	0.138*	0.134*	0.248*	0.367*	0.483*	0.437*	0.495*	0.395*	0.326*	1.000						
SG4	0.327*	0.407*	0.146*	0.145*	0.182*	0.214*	0.350*	0.406*	0.282*	0.376*	0.371*	0.203*	0.603*	1.000					
SG5	0.340*	0.171*	0.166*	0.154*	0.255*	0.137*	0.258*	0.213*	0.249*	0.169*	0.460*	0.492*	0.330*	0.345*	1.000				
SG6	0.424*	0.326*	0.277*	0.178*	0.205*	0.383*	0.290*	0.488*	0.312*	0.349*	0.427*	0.506*	0.584*	0.532*	0.387*	1.000			
SG7	0.365*	0.300*	0.263*	0.235*	0.281*	0.305*	0.306*	0.384*	0.184*	0.327*	0.363*	0.330*	0.455*	0.368*	0.336*	0.401*	1.000		
SG8	0.371*	0.153*	0.236*	0.164*	0.293*	0.215*	0.337*	0.325*	0.296*	0.192*	0.637*	0.585*	0.412*	0.350*	0.436*	0.383*	0.615*	1.000	
SG9	0.307*	0.233*	0.303*	0.213*	0.178*	0.240*	0.232*	0.225*	0.196*	0.308*	0.540*	0.492*	0.312*	0.450*	0.573*	0.433*	0.320*	0.335*	1.000

Table 4. The relationships between the variables of organizational levels (*P<0.05)

Variables	MOM					IC				SG								
	MOM1	MOM2	MOM3	MOM4	MOM5	CA1	CA2	CA3	CA4	SG1	SG2	SG3	SG4	SG5	SG6	SG7	SG8	SG9
Pearson Product Moment Correlation Coefficient: r (Organizational levels)																		
MOM1	1.000																	
MOM2	0.560*	1.000																
MOM3	0.555*	0.427*	1.000															
MOM4	0.338*	0.493*	0.494*	1.000														
MOM5	0.355*	0.329*	0.326*	0.463*	1.000													
CA1	0.374*	0.429*	0.266*	0.530*	0.522*	1.000												
CA2	0.441*	0.436*	0.260*	0.508*	0.535*	0.611*	1.000											
CA3	0.324*	0.299*	0.198*	0.417*	0.335*	0.340*	0.328*	1.000										
CA4	0.250*	0.355*	0.130*	0.286*	0.253*	0.444*	0.567*	0.458*	1.000									
SG1	0.401*	0.348*	0.344*	0.433*	0.352*	0.321*	0.340*	0.453*	0.480*	1.000								
SG2	0.166*	0.349*	0.195*	0.233*	0.238*	0.325*	0.289*	0.353*	0.351*	0.344*	1.000							
SG3	0.443*	0.425*	0.348*	0.520*	0.522*	0.568*	0.554*	0.313*	0.292*	0.395*	0.326*	1.000						
SG4	0.455*	0.426*	0.297*	0.448*	0.443*	0.469*	0.476*	0.304*	0.327*	0.371*	0.403*	0.603*	1.000					
SG5	0.258*	0.308*	0.309*	0.275*	0.162*	0.360*	0.361*	0.234*	0.170*	0.460*	0.592*	0.330*	0.445*	1.000				
SG6	0.406*	0.454*	0.377*	0.441*	0.331*	0.461*	0.523*	0.332*	0.310*	0.427*	0.306*	0.584*	0.532*	0.387*	1.000			
SG7	0.418*	0.405*	0.507*	0.353*	0.157*	0.330*	0.244*	0.191*	0.188*	0.363**	0.530*	0.455*	0.368*	0.336*	0.401*	1.000		
SG8	0.350*	0.305*	0.490*	0.281*	0.123*	0.320*	0.383*	0.125*	0.268*	0.537*	0.685*	0.412*	0.350*	0.436*	0.383*	0.615*	1.000	
SG9	0.356*	0.441*	0.260*	0.190*	0.223*	0.239*	0.255*	0.150*	0.205*	0.640*	0.492*	0.312*	0.450*	0.373*	0.433*	0.320*	0.335*	1.000

Table 5. Summary of structural model fit and the empirical statistics

Model fit indices	Criteria	Statistics from data analysis
χ^2	P>0.05	$\chi^2=99.671$, df=97, P=0.154
χ^2 / df	≤ 2	1.028
CFI	≥ 0.90	0.923
TLI	≥ 0.90	0.911
RMSEA	≤ 0.08	0.037
SRMR _w	≤ 0.08	0.018
SRMR _B	≤ 0.08	0.005
Passed the criteria of model fit indices		

Source: Morris (1995), Hu & Bentler (1999), Ullman (2001), Goldstein (2003), Heck & Thomas (2009), Muthén and Muthén (2010).

According to Table 5, the results showed that the model was consistent with the empirical data, with a chi-square value of 99.671, a degree of freedom of 97, and a p-value of 0.154, CFI=0.923, TLI=0.911, RMSEA=0.037, SRMRW=0.018, SRMRB=0.005, $\chi^2/df=1.028$. However, the results of the overall model fit measure revealed that the developed model had construct validity and fit the empirical data. The development model of factors influencing Thai exporting companies' strategic performance, using multilevel confirmatory factor analysis method, is displayed in Figure 1.

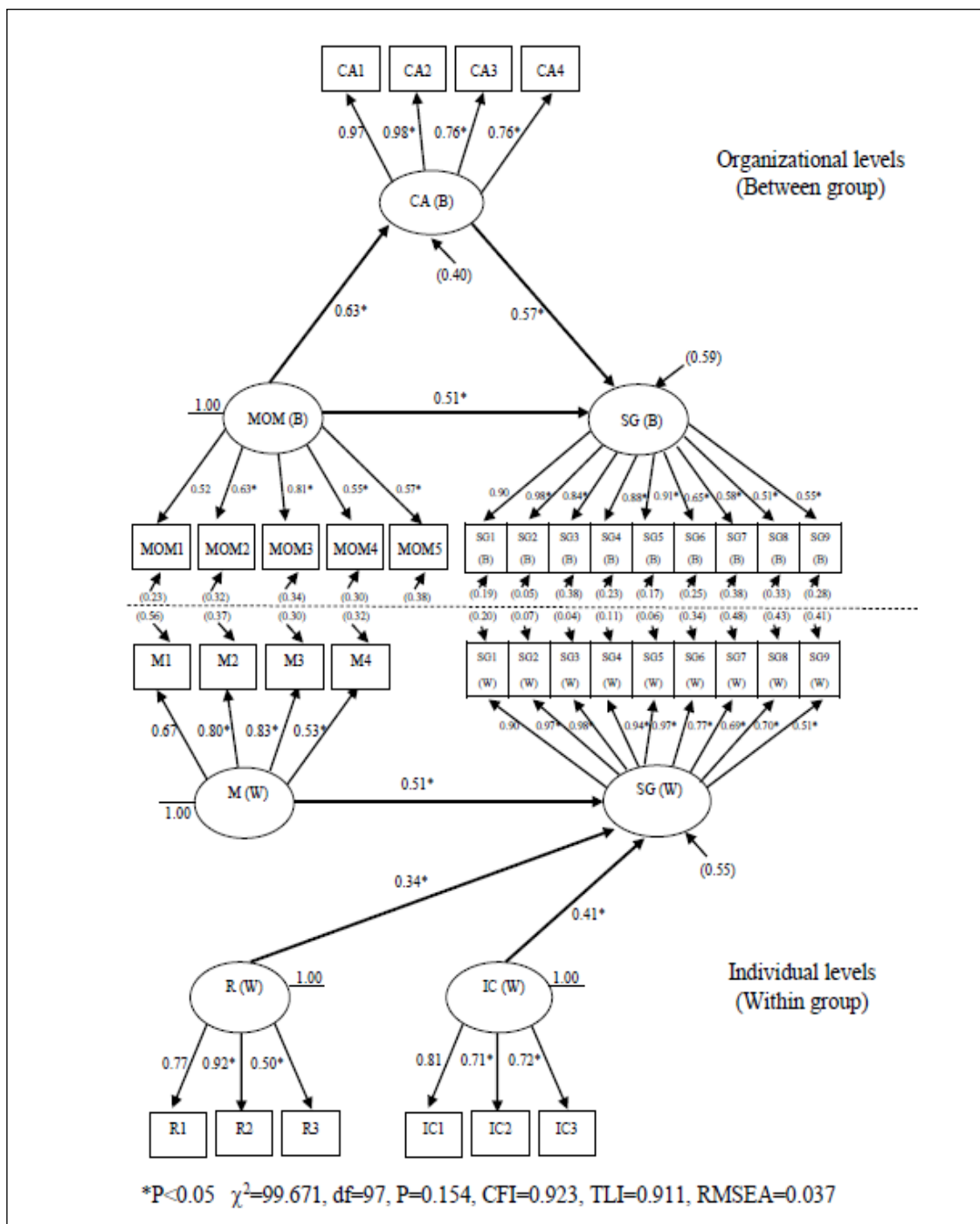


Fig. 1. The development model of factors influencing Thai exporting companies' strategic performance

Considering the results of the component fit measure, it was found that all factors, including marketing, reliance and intellectual capital, had a positive causal factors affecting the strategic success of Thai exporting companies at individual levels. On the other hand, there was a positive causal relationship between the organizational level, modern organizational management and competitive advantage with the strategic success of Thai exporting companies. In order to verify the relational model, it noted that the assumptions of the developed multi-level structural equation model could predict factors affecting the strategic performance of Thai exporting companies at

the individual and organizational levels with 54.5 percent and 58.6 percent predictive capacity respectively, exceeding the acceptance criterion of 40% and higher (Saris & Strenkhorst, 1984).

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May Students in Business Administration and Economy Will Be Passionpreneurs in Labour Market?

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Abstract

The term of entrepreneurs Culture dominates scientific works of Scholars and the best practices of practitioners during the 20 past years. It has been exhaustively described (principles, methodology, models, culture, practices,) and of course its success was huge in companies and organizations. However, recently, to adapt the development of management sciences with the speed change in the environment (external and internal of the organizations), the specialists (Scholars/ Researchers) have invented the term of (Passion-preneur) which includes the characteristics of (courageous people, passion, spirit of success, challenge desires, business, *confidence and creativity to pursue multiple passions in life, despite being told the correct way is to focus on one area*, ...), to get to the success in the business and economy field.

This (passionpreneur culture) is a new approach in the business or economy and it implements new components of culture and methodology to achieve effective results in modern enterprises.

This paper presents the approach, which exceeds (Entrepreneurial or organizational Culture) and it addresses students in business and economy in order to know if they will be passion-preneurs in labour market?

Keywords: students in business and economy, passion-preneur culture, HR Management.

1. INTRODUCTION

The old model of building a business to benefit only you is dead. Those who have not adopted the new model will find themselves totally lost. This new model is someone who has plugged into his or her passion and turned it into a profitable business while positively contributing to other people's lives. They are Passionpreneurs come from all walks of life and represent a vast number of businesses and business models. To be a passionpreneur you must attach your passion to a cause or something that is close to your heart. With this concept, Passionpreneurship is not just doing what you love to do; it's also doing what you love to do while benefiting others. The Passionpreneur is a potent model. It's a powerful way of doing business. Passionpreneurs come from all over the world in different disciplines and they share strategies, marketing tools, and how they've generated a successful passionpreneurship. Passionpreneur can meet with any other individuals who have plugged into their passion and turned it into profits while communicating their message to the world and helping others.

There are a few famous passionpreneurs, but there are a lot of passionpreneurs out there. Men and woman who have a huge movement that is growing exponentially.

This paper presents the basic of passionpreneurship (definitions of concepts and terms of passionpreneurs, their characteristics, intellectual passions and passionpreneurs, passionpreneur models, techniques of creating passionpreneurs and managing the model, types of passionpreneurs personalities, Passionpreneur culture and some case studies and examples of famous passionpreneurs).

Finally, this paper offers an interesting practical model for creating, implementing the passionpreneur culture, especially to students in business administration and economy.

2. Literature review

There are not many scientific works that addresses the topic of passionpreneur except some books intended for the public and other articles combined between passion personality trait and the enterprise spirit among ambitious people. That is why; few scientists have contributed to enrich the subject methodologically and practically.

Passion (from the Greek verb *πασχω* meaning to suffer) is a very strong feeling about a person or thing. It is an intense emotion, a compelling enthusiasm or desire for something. Passion may be a friendly or eager interest in or admiration for a proposal, cause, discovery, or activity or to a feeling of unusual excitement, a positive affinity or love, towards a subject. (Wikipedia, the free encyclopedia).

In the English Dictionary passion means: a strong affection or enthusiasm for an object, concept, etc; a passion for poetry. A strong or extravagant fondness, enthusiasm, or desire for anything. (English Dictionary).

Shailaja Rao Thinks of the point you find the options to move forward when you desire something and you go to any length to achieve; it is called passion. Same way an activity that you like to do, you do it without a sense of time or sense of your surroundings or the people around you and at the end of it you don't feel tired mentally, is your passion. (Shailaja.Rao (2015)).

Passion in Psychology Dictionary is a noun. A severe, driving, or all-consuming sensation or conviction. It is frequently compared with feelings, wherein an individual is affected involuntarily with severe carnal desire, an intense liking or enthusiasm for or commitment to an activity, item, idea, or the like. (Psychology Dictionary.org).

Denis Diderot describes passions as: penchants, inclinations, desires and aversions carried to a certain degree of intensity, combined with an indistinct sensation of pleasure or pain, occasioned or accompanied by some irregular movement of the blood and animal spirits, are what we call passions. He further breaks down pleasure and pain, which are the guiding principles of passion into four major categories: (Timothy L. Wilkerson; Arbor .Ann (2004/2009), Diderot, Denis).

1. Pleasures and pains of the senses
2. Pleasures of the mind or of the imagination
3. Our perfection or our imperfection of virtues or vices
4. Pleasures and pains in the happiness or misfortunes of others.

Passionate meaning in (Collins Dictionaries) is manifesting or exhibiting intense feeling or desire, capable of, revealing, or characterized by intense emotion, easily roused to anger, quick-tempered. (Collins English Dictionary, Harper Collins Publishers).

A passionate person has very strong feelings about something or a strong belief in something, his passionate commitment to peace or believer in public art. He is very passionate about the project.

(Advanced English Dictionary. Harper Collins Publishers)

Generally, passionate person refers to someone who has intense feelings on some topic, whether it is devotion to an ideology or to some cultural passion, like impressionist painting or hip-hop. It is often one who tries to convince others that their preferred topic is worthy of everyone else's attention. (Gary Allen, (Jul 16, 2015)).

Passionpreneurship is not just doing what you love to do; it's also doing what you love to do while benefiting others. *pa-ssion-pre-neur is: A person who has the courage, confidence and creativity to pursue multiple passions in life, despite being told the correct way is to focus on one area.* (Goodridge. Walt F.J.(2016)).

Passionpreneur Someone who has plugged into his or her passion and turned it into a profitable business while positively contributing to other people's lives. He comes from all walks of life and represents a vast number of businesses and business models. Passionpreneur is a potent model; He's a powerful way of doing business. (Anderson. Eric (2014)).

So, Passionpreneurs are men and women of every age, ethnic group, educational background, profession and religion. They are a diverse group of people from every corner of the globe who share a common trait and found something they enjoy doing and have decided to keep doing it. They include housewives, inventors and artists. In other words, they've created businesses to make money doing what they love. As a result, they set their own schedules and control their time, live according to a personal value system rather than someone else's.

Everyone can turn his or her passion into profit because of a few special beliefs. Everyone is creative. Therefore, each one has the ability to create as well. People can learn to be successful. Every desire, motivation, talent, skill, reason and rhyme you need is already a part of you.

(Goodridge. Walt F.J.(2016)).

3. Research objectives and problematic

3.1. Research objectives

The main objective of this research is to highlight the concepts of Passionpreneurs culture of students in business administration and economics and their impact on the labor market?

The sub-objectives are such:

1. Introduce the methodology to address this topic,
2. Illuminate applied models,
3. Propose a New Practical Model for Passionpreneurs Culture of Students in (Business Administration and Economics).

3.2. The problematic

The research addresses the following issues and problematics:

- What are the successful models in applying the business culture and economy of passionate entrepreneurs?
- What is the impact of the passionpreneurs culture of students in business and economics on the labor market?
- How to develop and implement a practical model of passionpreneurs culture of students of economics and business on the labor market for the development in Europe?

4. Methodology

The methodology followed by this research is the exploratory, comparative and qualitative method of case studies, where it deals with data sources, research and studies or books already published by academics or researchers or professionals working in the field, research's, as well as case studies of labor market enthusiasts, etc., who analyzed the data collected to extract indicators and results, as well as practical models. All this has been enriched by studies of passionate entrepreneur culture and provided the necessary expertise to create models. Finally, the research proposes a practical model.

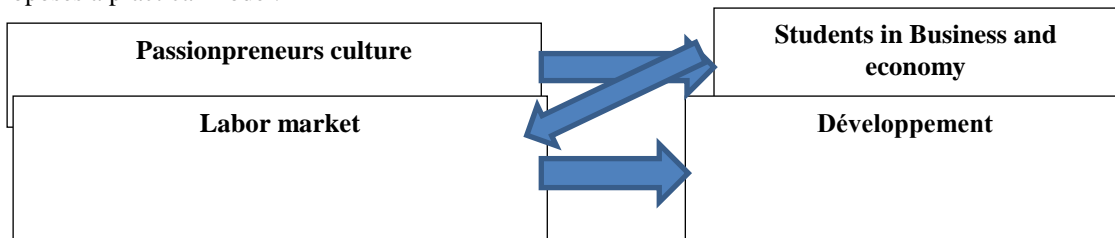


Figure 1. Conceptual framework of the problematic

5. Intellectual Passions and Passionpreneurs

Some Scholars insist that there are passions far more exciting than the physical ones. There are intellectual passion, passion for discovery and exploration: the mightiest of all passions. (Weintraub.Stanley.(1996).These are some of the intellectual passions :

5.1. The motivation

In an occupation is one of the intellectual passion. When an individual is passionate about their occupation they tend to be less obsessive about their behavior while on their job, resulting in more work being done and more work satisfaction. Other reasons include the effects of intrinsic and external motivations. When an individual is doing the job to satisfy others, they tend to have lower levels of satisfaction and psychological health. (Burke, R. (J.; Fiksenbaum, Lisa (2009).

5.2. Work enjoyment

Is another intellectual passion that qualifies as reasons for considering an individual as a workaholic (a person who works compulsively). While the term generally implies that the person enjoys their work, it can also imply that they

simply feel compelled to do it). There are two workaholism components that are used to measure workaholism. These include inner pressure and work enjoyment. Both of these affect an individual differently and each has different outcomes, Work enjoyment and inner pressure were tested with performance ratings. Inner pressure lowered the balance between work-life and life satisfaction and enhanced people's performance at their occupation, whereas work enjoyment led to a positive balance between the two. Again, when individuals are passionate about their occupation and put in many hours, they then become concerned that their occupation will satisfy personal relationships and the balance must then be found according to the importance levels of the individual. (Burke, R. J.; Fiksenbaum, Lisa (2009).

5.3. *Desire*

Is a passion in an occupation and it goes hand in hand, especially as a motivation. Linstead & Brewis say that passion is an intense, driving, or overmastering feeling or conviction, Passion is connected to the concept of desire. (Linstead, S.; Brewis, J. (2007).

5.4. *Motivation / Work enjoyment and desire affect positively the outcomes.*

The researchers indicate different patterns of correlations between these components and performance. These patterns offer motivations or orientations to work which result in its effects on work and well-being. Inner pressures will hinder performance while work enjoyment will smooth performance. Inner pressures of workaholism have characteristics such as persistence, rigidity, perfectionism, and heightened levels of job stress. Individuals who enjoy their work will have higher levels of performance for several reasons. These include creativity; trust in their colleagues, and reducing levels of stress. (Burke, R. J.; Fiksenbaum, Lisa (2009).

5.5. *Innovation and passionpreneurship.*

Innovation is the specific tool of entrepreneurs, the means by which they exploit change as an opportunity for a different business or a different service. It is capable of being presented as a discipline or learned, and practiced. Passionpreneurs need to search purposefully for the sources of innovation, and they need to know and to apply the principles of successful innovation.

5.6. *Innovation and Entrepreneurial Orientation EO.*

The most widely used definition of EO is based on work), developed further, and augmented. This conceptualization has been used in over 200 studies focusing on entrepreneurship (George, B. A., & Marino, L. (2011). The five components of EO in this stream of research are:

1. Risk-taking, it is a key characteristic associated with entrepreneurship. It referred to the risks individuals take by working for themselves rather than being employed.
2. Proactiveness, entrepreneur was thought of as someone who identifies opportunities in the marketplace and proactively pursues them (Lumpkin and Dess, 1996).
3. Innovativeness, it is defined more narrowly, emphasizing the importance of technological leadership to the company, as well as changes in its product lines.
4. Competitive aggressiveness, it refers to the company's way of engaging with its competitors, and to those that aggressively pursue their competitors' target markets.
5. Autonomy, it refers to the independent action of an individual or a team in bringing an idea or a vision and carrying it through to completion.

The components have typically been measured by using questionnaire items, with (Likert-type scales). (i.e. from 1-5 or 1-7), as shown in Table. (Bruce C. Martin,Jeffrey J.McNally,Michael J. Kay, (2013)).

EO Component	Typical Assessment Items
Risk-taking	Managers in my firm have a strong proclivity for high-risk projects. Managers believe owing to the nature of the environment.
Proactiveness	My firm typically initiates actions when it deals with its competitors, which competitors then respond to.

	My firm is very often the first business to introduce new products/services, administrative techniques, operating technologies, etc.
Innovativeness	The top managers in my firm favor a strong emphasis on R&D, technological leadership, and innovation. Very many new lines of products or services, Changes in product or service lines have usually been quite dramatic.
Competitive aggressiveness	When confronted with decision-making situations involving uncertainty, my firm typically adopts an aggressive posture in order to maximize the probability of exploiting potential opportunities.
Autonomy	My firm supports the efforts of individuals and/or teams that work autonomously.

Table 1. Measuring the components of entrepreneurial orientation

5.7.-passionpreneur Management Implication.

Authors vary in how they combine the dimensions above into the overall EO construct. The most common variations are for researchers to use either the three components of (risk-taking, proactiveness, and innovativeness) (Miller WR. (1983).) or all five components. There are also studies that report on single components only. Some authors suggest that each of the dimensions is a reflection of a company’s EO. This approach implies that the different components cover with each other. (Ferreira HC, et al. (2011); (Schillo . R. Sandra (2011).

6. Passionpreneur Models

6.1. Passionpreneurs mentality and characteristics at work

When Passionpreneur share special mindset ,they can do everything they put in their mind to, and they will find a way, and have fun pursuing each and every one their passions from this day forth (Connect, Promote, Grow, Inspire). Then, they can formulate (Mission, Philosophy, Formula & Promise) of their company / organization such as:

- **Mission:** offer the world a philosophy and formula for turning one’s passion into profit. Encourage its use by parents, teachers, coaches, as well as within institutions of higher learning.
 - **Philosophy:** Your passion is part of your life’s purpose, happiness in life starts when you pursue it, everyone has a passion, all passions have value, any passion can be turned into profit, and you can make money doing what you love.
 - **Formula & Promise:** formula is the Cycle of Success, Promise is the Value, capitalizes on your history, incorporates your experiences, harnesses your talents, optimizes your strengths, complements your weaknesses, honors your life’s purpose, and moves you towards the conquest of your own fears. (Goodridge. Walt F.J. (2016). Then, Passionate People can do things differently regarding to their characteristics, Passionate people lead significantly different lives from their less-than-enthusiastic counterparts. Here are 10 things that passionate people do differently in order to their characteristics.(Hudson. Paul (2014).
1. Start their days early. It's just that once they're up, they get excited about the work ahead of them.
 2. Always have their passions on their mind. Passionate people live in a world in which the few things that matter to them in life basically involve the passions they love.
 3. Get excited more than the average person. Passionate individuals may feel excited. They get excited more fully, for a longer duration and, overall, more frequently.
 4. Get pissed off and emotional more than the average person. Passionate also can come off as very moody. They go from happy and excited to piss off and miserable.
 5. Willing to risk more and put more on the line. Passionate are willing to risk more for the thing(s) that you find most important that you are most passionate about.
 6. Devote their lives to their dreams .Passionate knows what will make them happy and are willing to ignore the rest.
 7. Surround themselves with their work. Passionate work is home because their work is in them and reflects in everything they have and do.
 8. Can't help but talk about their projects. Passionate don't see their passions as separate from themselves; they are their passions.

9. Tend to either be pushing ahead full throttle or are completely still. Passionate get overly excited and push themselves to their limits. They love working and love moving forward quickly.

10. Always think positively about the future. Passionate minds are always looking ahead, looking at what can be instead of what is.

6.2. *Creating a passionpreneur model*

The whole concept of turning your passion into profit is one that developed the term "passionpreneur" to describe someone who has turned a motivation, innovation, hobby, talent or passion into a business. (passion-based entrepreneur). The Passion Profit model is a four-step process:

-Step 1. Discover your purpose (which you've already covered). Once you have a better idea of why you are here on the planet, your next step is discovering your passion (the thing you are good at and love to do) is perfectly designed to help you fulfill your purpose. The three types of people encounter in Passion Profit workshops are:

1) Individuals who don't know what their passion is, your passion may be hiding in your hobbies; it maybe in your desire to make a difference; it may be a childhood wish.

2) Those that have too many, whichever passion you decide to pursue are just the first step in a journey that may lead through different expressions of your passion.

3) Those that have a passion and don't know what to do with it.

-Step 2. Develop your passion. The fact that every passion has value means that everyone can be rewarded for the pursuit of something that has special meaning in his or her life. You must transform that talent into a product or service that represents value to the rest of the world.

-Step 3. Create a product. Create a tangible product, regardless of what your passion is, there are some passions that are better expressed as services. The trick here knows how to price your services so that you remain profitable.

-Step 4. Market it for profit. Sell your product or service. There are only two ways to make money in business: charge more, or spend less. (Goodridge. Walt F.J. (2016).

6.3. *Nomadpreneur model*

Nomadpreneur is an individual whose income strategy allows him or her freedom to travel while generating income regardless of where he or she happens to be physically located. A nomadpreneur makes money and maintains mobility. Goodridge. Walt F.J. says: It's a lifestyle I've created for myself and which I coach others as part of my Achievable Freedom concept. Freedom has always been my own personal prime directive. Whatever decisions I make in life from what job to take, to what relationships to engage in are usually made by considering how much each option will affect my freedom. I truly believe many people would love to make decisions in the same way, but they simply aren't aware that other options exist, or that freedom is, in fact, achievable. Many people have bought into a paradigm of entrapment. Nomadpreneurs have that freedom. (Goodridge. Walt F.J. (2016).

7. *Passionpreneurial culture*

For at least the last 30 years, entrepreneurial culture has been a frequently appearing. Concept in both the entrepreneurship and broader management. It has been described as a form or type of culture which is "creative, innovative, takes risks, and challenges the status quo". (Ireland R. Duane. &All (2003).

Entrepreneurial culture has been used as a new approach with respect to (values, attitudes, beliefs, assumptions, norms, and behaviours) related to passion- entrepreneurship. Passionpreneurship is meant here as "a process centrally concerned with the notion of (Opportunity, recognition, discovery and/or creation) where opportunity is defined as the creation of new value to society in part or in whole" (Schendel & Hitt, (2007).

7.1 *Needs for Theoretical Understanding of Passionpreneurial Culture*

Passionpreneurial culture is a concept that has been used to characterize a broader Organizational culture that supports or champions entrepreneurship. Organizational cultures influence new and existing members, motivates and cautions them, shapes and conforms their thinking and behaviors, creates structure within the organization, and builds routines and traditions that are held with emotion (Sackmann, 1992; Schein, 1990).

As a result, passionpreneurial culture has been argued to be a powerful force within organizations to enhance the innovative abilities of employees, fuel a desire for firm survival (Sundara Murthy & Kreiner, 2008), provide permission to fail and try again, encourage a broad array of new ideas, experimentation, and creativity, and develop

organizational learning abilities and a focus on markets. Contemporary, research continues to call for the study of culture in passionpreneurship, particularly in new venture creation and teams (Klotz, Hmieleski, Bradley, & Busenitz, 2014).

Related to the lack of conceptual clarity around entrepreneurial culture, there has been a paucity of empirical examinations of passionpreneurial culture.

7.2. Componentets of passionpreneurial Culture

7.2.1. Learning & Development Support

This characteristic of passionpreneur culture is the values of optimism toward improvement, valuing efforts to learn, and improve one's self and others, and an interest in employee development. In entrepreneurial cultures people are thought to generally (or at least sometimes) have good ideas and are motivated to improve things and pursue new opportunities. (Monsen, E., & Boss, W. (2009).

7.2.2. Cohesiveness

In the passion-preneurial, culture, and literature and in the related subtype examples, the general notions of collaboration, communication, and social interaction were identified as important cultural characteristics (David J. Ketchen Jr, and all.(2007).

7.2.3. Nomological Network

When developing a new construct, (MacKenzie .Scott B.(2011) suggest that while a fully mapped nomological network may be forthcoming. Reflecting on the nature of the passionpreneurial culture construct, a number of antecedent constructs seem likely.

7.2.4. Ontology

In the domain of construct development, ontology is theoretical link between the theoretical model and the measurement model.

7.2.5. Organizational Enthusiasm

Organizational enthusiasm is highly related to passionpreneurial culture conceptualizations that Referred to the characteristics of possessing a vision and passion for the business. This concept is partially based on entrepreneurs' perspectives towards work, the purpose of entrepreneurial organizations, and their overarching vision for the organization. Passion refers to the zeal and enthusiasm they have for their organizations. Entrepreneurial passion has been defined as "an entrepreneur's intense affective state accompanied by cognitive and behavioral manifestations of high personal value". (Xiao-Ping Chen,Xin Yao and Suresh Kotha, (2009).

7.2.6. Opportunity Driven Change

A pattern of values, assumptions, and practices demonstrating a willingness to change in order to identify/develop opportunities and execute on them. A passionpreneurial culture was defined as a pattern of values, assumptions, and practices shared within an organization that is centrally concerned with opportunities, where opportunity is the creation of new value to society in part or in whole. (Wong .Matthew A. (2014).

8. Finding

8.1 Passionpreneur Personality types

Once you know your purpose, it becomes easier to identify the passion that you should pursue. Take the Passionpreneur Personality/Purpose Test for clues to your purpose. Walt F.J. Goodridge presents in his book” Turn Your Passion into Profit” the types of passionpreneur personality by using a test of 40 questions. According to the Passion to Profit Personality Test, the dominant Passion-Type is: (Goodridge. Walt F.J. (2016).

Table .2. Passionpreneur Personality types

Exciter	Competitor
Informer	Supporter

Each type Guide includes: What It Means the Type? The type's Prime Directive? Recognizing the type? What Moves the type to Action? How the type Inspire Others? How to Be a Better in the type? Where the type Find Passion? Can the type Turn Passion into Profit? The type in Love?

8.2. Case studies

The hot new movement in business today is Passionpreneurship. Passionpreneurs are every day individuals whose love and passion for their hobby inspired a new business idea. They combine an entrepreneurial flair and a passion of theirs to make money, be their own boss and contribute something exciting and fresh in your community.

8.2.1. Passionpreneur Network

It is founded by Adera Angelucci (founder and CEO) with Kristal Barrett-Stuart (partner). Its activities are to promote, connect, inspire) amazing passionate people in business. (<http://www.passionpreneurnetwork.com/>).

8.2.2. PassionPreneur clinic MSME

It is a Professional Training & Coaching clinic offers services for preparation to be passionpreneur such as: PassionPreneur Vision, Effortless prosperity for all concerned Mission, Turning Passion into Prosperity Values, Integrity, Unreasonableness, and Wisdom Beliefs. The PassionPreneurship Coaching Program is to practically attract wealth and build net worth for whom. The fields of the clinic are Transformation, Entrepreneurship, Wealth Creation, Prosperity. (<http://passionpreneur.in/2010/11/09/why-msme-owners>,<http://www.raymondcoaching.co.in>)

8.2.3. Passionpreneur Univeristy

Passionpreneur University proposes a Master of Passion Degree Program as ongoing course and curriculum based on the philosophy and formula in the course text, Turn Your Passion Into Profit, and includes step-by-step guidance, suggested reading lists, tests, special presentations, and will meet once-a-week in our "email classroom" all designed to help you master and graduate to a passion-centered life. Interactive course author passionpreneur/ Nomadpreneur is Walt Goodridge ("Professor Passion Preneur"), who presents how to: Discover, develop and profit from the pursuit of your passion; Turn your hobby/talent into a passion-centered business; Develop a viable income strategy; Launch your passion-centered business on the internet; Escape your nine-to-five job & create true freedom if you wish; Make money doing what you love; Help others do the same. Passionpreneur University publishes a newsletter, and Watch this on YouTube. (<http://www.passionpreneur.com/university>).

8.2.4. Amway USA Passionpreneurs.

Amway begins in Ada, Michigan. Founders (Jay Van Andel and Rich DeVos) coined Amway as an abbreviation for "American Way". Amway launches its first product, L.O.C. (Liquid Organic Cleaner) one of the first bio-degradable, concentrated multi-purpose cleaners. L.O.C. becomes a high seller and initiates the legacy of taking our stewardship for the earth seriously. The Amway Center, a 20,000 seat entertainment and events center opens in downtown Orlando, Florida, USA. The Amway Center is the home of the National Basketball Association (NBA) Orlando Magic basketball team. Amway opens a new Business Center near Krakow, Poland which provides IT and marketing services for Amway's European markets. (<http://www.amway.com/>).

8.2.5. PassionPreneur 101- (TeleClass)

It gives insight and tools that will help you to explore the passions that are in you. PassionPreneurs will be able to: (Understand what passion in the business world is; Understand the levels of passions as an entrepreneur; Recognize

one's dominate trait(s) as a PassionPreneur; Develop a PassionPreneur Profit Calendar for.(<https://www.meetup.com/pinkroom/events/231625646/>Innovation is about failure!March3,2016).

8.2.6. *Global Head of Innovations for Microsoft talks*

JC Oliver is the Global Head of Innovations for Microsoft and is BBC Award Winning Multimedia Programs Producer amongst many other awards & roles .So when it comes to Innovation he is one of the best globally. He said: As usual I was being cheeky and asked him “If you had a choice between someone skilled yet low on passion vs. someone who is passionate but low on skills which one would you choose” ;he immediately said “always go with passion! You cannot teach passion and that translates into your entire team”. He talks about how putting people on tasks they already know will get them board easily, you need to challenge them with things to innovate, maybe a research about fruit bats!(<http://www.campaignlive.co.uk/article/microsofts-global-head-innovation-defines-innovation/1342125>).

8.2.7. *Moustafa Hamwi, the Syrian who lost everything, then became a passionpreneur.*

He is a Syrian who came to Dubai in 2000, the day after he left university. Working first as a telesales operator, then at advertising firm Leo Burnett, he sets up events business after his own birthday party guest list hit 650 attendees. Over the course of eight years he hired 45 employees, created the Cavalli Club and made US\$15 million. Then he had to shut down in the recession, losing most of his money to bad debt and investments. After that he was stressed and unhappy, he bought a one-way ticket to India in 2012, heading to Rishikesh in the northern state of Uttarakhand. Mustafa Hamwi headed back to Dubai to set up a series of talks and training courses to help students to chief executives to find their passion. His business card says he is an international speaker, passionpreneur coach and chief energy officer. He has run workshops for local companies from Emaar Hospitality and Mubadala to multinationals like General Electric, HP and HSBC. he adds. "My simple message is: Recruit for passion and train for skill. Any skill in the world is trainable, passion is not. At events like the recent Human Capital Forum, I use the Conversation Chair that’s like a modern version of a love seat. He was featured with Dr. Marshall Goldsmith, World’s 1 Leadership Thinker. Mustafa has interviewed over 50 global leaders, sports champions, award winning artists and celebrities diving deep into their interpretation of passion and its impact on all aspects of success in business and life including: leadership, innovation, employee engagement, performance and quality of life. (Passionnovate Mustafa Hamwi, Suzanne Locke , (2016).

8.3. *passionpreneur culture practical model*

Passionpreneur culture practical model includes .Ten Characteristics such as:

Passionpreneur Characteristics	Components of passionpreneurial Culture	Passionpreneur Personality types
Skillful	Learning & Development Support	Exciter
Strong-willed		
Expressive.	Cohesiveness	Competitor
Learner		
Love their job/work	Nomological Network	Informer
Focused		
Perseverant	Ontology	Supporter
Productive		
Productive	Organizational Enthusiasm	Supporter
Risk-taker		
Independent Thinker	Opportunity Driven Change	

Figure.2. **passionpreneur culture practical model.**

Conclusion

For concluding, it is preferable to mention that passionpreneur is a new approach of practice in Business and economic development. So, the conclusion and recommendation are:

- Modern organizations and enterprises should benefit of the technique and tools used by the passionpreneurship,

- Students in business administration and economy are invited to study carefully and deeply this efficient approach (Passionpreneurship).
- Passionpreneurship culture is characterized by several traits totally different than the organizational or entrepreneurial culture.
- There is some practical models related to passionpreneur culture, and it is necessary to understanding it before integrating in the implementation stage.
- Students in business administration and economy have the potentiality to be passionpreneurs, and to carry out this approach successfully.
- Business schools and faculties or higher institutes in business administration and economy must develop their curricula's or teaching programs according to the needs of passionpreneurship approach.

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Effectiveness and Influence of Mobile Marketing on Consumer Behavior in Digital Era

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Abstract

In the Digital era, the role of marketing has become a powerful source. Many businesses apply various marketing strategies to increase market share, create consumer awareness, and most importantly to create customer satisfaction. The role of traditional marketing is fading. Business uses digital marketing initiatives for effective and efficient marketing communications. Consumers are influenced by various marketing tools such as email marketing, social media marketing, buzz marketing, mobile marketing, and so on. In today's digital era, almost everybody has a smartphone or tablet. Businesses are adjusting to the demand and are creating strategic ads that consumers can see right away. For example, mobile marketing is becoming more and more effective.

The aim of the research is to study consumer behaviours and to see on what type of advertisements they mostly pay attention to. The study will critique existing literature where comparisons will be drawn between traditional versus digital marketing, email marketing versus mobile marketing (SMS marketing). The study will look at the gap analysis of the literature. The study will conduct a mini survey that will provide relevant data for analyses. The result of the study will showcase the effectiveness of mobile marketing in the digital transformation era.

Keywords: Mobile marketing, SMS Marketing, Traditional Marketing, Digital Marketing, Consumer Behavior

1. INTRODUCTION

In the digital era, the role of marketing has become a powerful source. Digital transformation has influenced new ways of advertisements. The creation and modification of new communication gadgets enabled marketers to use their whole capabilities. New gadgets allow businesses to reach their customers within moments.

Many businesses apply various marketing strategies to increase market share, create consumer awareness, and most importantly to create customer satisfaction. Digital transformation allowed customers to become a dominant source. Customers now tell the business what they want, and how fast they want it. That has become one of the reasons why the role of traditional marketing has faded.

Traditional marketing tools are still a vital resource for marketers; however, they acknowledge that it is diminishing. The businesses that still employ traditional marketing, must start creating platforms for digital transformation. With current digital tools and platforms, businesses can reach customers momentarily.

Today, the majority of businesses use digital marketing initiatives for effective and efficient marketing communications. Social media marketing and mobile marketing is a platform where customers can be reached. Mobile phones, tablets, and so on, are within the reach of customers. They instantly can check and see the advertisement.

Consumers are influenced by various marketing tools such as email marketing, social media marketing, buzz marketing, mobile marketing, and so on.

In today's digital era, almost everybody has a smartphone or tablet. Businesses are adjusting to the demand and are creating strategic ads that consumers can see right away. For example, mobile marketing is becoming more and more effective. SMS marketing is a tool that many marketers use to reach potential customers. It allows businesses to have a great market segmentation strategy. They can develop and design various population segments and do specialized, targeted SMS marketing. The reach of SMS marketing is huge, which has a direct influence on building market share, competition, and revenues.

SMS marketing has a direct influence on consumer behavior. The influence can be positive as well as negative. For marketers, to have the ability to create content for SMS marketing.

2. LITERATURE REVIEW

According to Falls and Deckers (2011), traditional marketing communication channels are still valuable and actual in contemporary world, as traditional media platforms are still used plenty of customers. Traditional channels still provide marketers with possibility to reach huge audience. The authors make comparison between social media and traditional channels. As it is reported, in comparison with traditional marketing, social media channels constitute two-way communication platforms, whereby it is very possible to establish effective communication with thousands of consumers simultaneously. Though, traditional channels can be used in conjunction with digital tools. It is very possible to increase traffic through ads on TV, Radio or through email marketing. As Lamb et al. (2011) claims, TV marketing, which constitutes one of the traditional channels, has plenty of advantages. First of all, it provides a way to promote campaign in public and let customers learn more about the available products or services. As it is claimed by the authors, the TV ads are perceived more reliable and increase more trust in customers towards a brand. Besides, it helps customers to increase awareness and to find product, which can be the most useful to them.

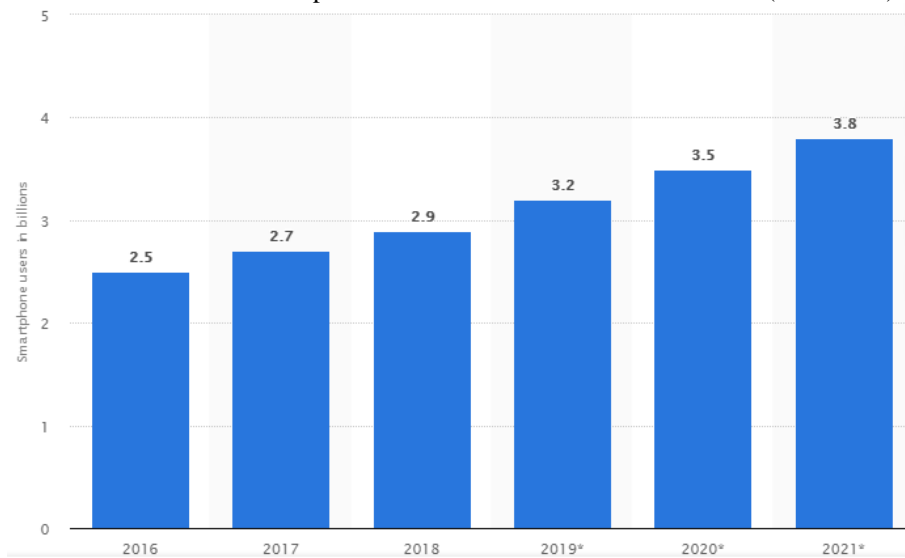
By comparison, Pringle and Marshall (2011) draw attention to radio advertising and claim that this type of communication can be used in addition to TV advertising, in order to increase influence of ads on consumers. As the authors report, radio constitutes one of the cheapest ways to promote brand and have at least same impact, as through TV ads, which cost much expensive. Using various traditional channels can have much higher impact on customers, than focusing on the single one. The authors point to research of Newspaper Marketing Agency (NMA), which conducted research and proved that using newspapers for ads in addition to other methods had brought more effect, than spending more resources on the single channel. In addition, Bittner (2008) agrees with above mentioned authors and emphasizes effectiveness of radio advertising in China. The method has become much attractive to advertisers. As reported, number of radio channels was on the rise. Development of digital methods have substantially contributed to radio advertising, as through technological advancement radio channels have reached to majority of the population.

Though, Bhayani and Vachhani (2014) drew comparison between traditional and digital marketing. According to the authors, traditional marketing has slower influence than campaigns through digital platforms. Internet marketing provides opportunity to reach more accurate customers easily and more quickly. For example, Todor (2016) believes that companies should take into consideration both, traditional and digital channels to increase effectiveness of campaigns. As Kaufman and Horton (2014) stated, technological development remarkably contributed to development of marketing strategies as well. The authors claimed that possibility of data tracking and existence of various online tools provided marketers with additional techniques to track consumers and to evaluate effectiveness of digital campaigns. The authors believed that refinement was one of the most important attributes to digital marketing, as marketers could make a lot of changes in marketing campaigns to change them for better. Liebowitz (2016) agreed with rest of the authors and claimed that in past years there was substantial shift from traditional to digital channels. Digital channels are perceived more controllable and flexible way of marketing. The author put emphasis on social media channels. Kingsnorth (2019) drew attention to comparison between digital and online marketing. The author believed that email marketing, social media channels and search engine marketing were part of online marketing. As reported, based on online campaigns, marketers could learn consumer behaviour and analyze their needs. Changes in mobile devices and development of mobile applications increased actuality and effectiveness of online marketing.

In comparison with the traditional channels, mobile marketing has become one of the most widely applied advertising methods in the world, which has changed marketing strategies. Mobile marketing is perceived as accelerator for traditional marketing channels as well. Mobile marketing provides higher engagement of customers. Development of devices and internet, have considerably increase value of mobile marketing. Mobile Marketing Association defines it as a bunch of activities, which give companies possibility to communicate with customers, as well as to increase their engagement. Mobile marketing is believed as a source of more accurate and targeted marketing campaigns, whereas traditional marketing channels are linked with more generic advertisements. (Aktas, 2010)

As Richardson (2010) claimed, mobile phones have substantially changed lifestyle of people and way of communication. The author evaluated development of this technology positively for the field of marketing. Furthermore, the author emphasizes definition of mobile marketing provided by “Direct Marketing Association” M-marketing was defined as a process of marketing delivery through mobile devices. Furthermore, Amin et al. (2011) mentioned mobile marketing as the most enjoyable and attractive way to people, which are used very actively by young consumers. Especially, possibility of text messages exchange constituted one of the most advantageous features of mobile marketing, which attracted interest of young consumers.

Table 1: Number of Smartphone Users Worldwide From 2016-2021 (in Billions)



Statista, (2020)

According to the presented statistics, it can be seen how the number of Smartphone users have been on the rise. It has increased from 2.5 billion to 3.2 from 2016 to 2019. As it is anticipated the number will hit 3.8 billion by 2021. The statistics emphasize actuality of the mobile marketing. There are top 3 countries, China, India, and the United States, where most of the people use Smartphone. (Statista, 2020)

Yamamoto (2009) claimed that mobile SMS marketing constituted one of the cheapest ways to reach customers and deliver appropriate information regarding products or services through text messages. Promotion is very feasible through mobile marketing, as the devices are used by most of the population. SMS marketing shortens time and provides simple targeting method. As Information Resource Management Association of US (2015) reports, SMS marketing has advantages over digital channels. In some of the countries digital platforms are not available or are limited. Therefore, most of the companies use SMS mobile marketing to dissemination useful information among the population and to attract their attention. Mostly, SMS marketing is used by large sized organizations. Moreover, as Shareef and Kumar (2016) claim mobile SMS marketing offers a way to continuously keep customers up to date on special offers, new achievements. Besides, SMS is used to maintain long term relationship with customers. Any time of information can be disseminated through SMS. This nature of the approach increases actuality of it and therefore companies usually integrate SMS marketing into their marketing strategies.

Though, Prenzel (2010) points to different types of SMS marketing. SMS can be sent through telephony, as well as digital channels. As the author reports, in comparison with traditional way of SMS communication, telephony SMS marketing had 70% of response. Though, Yamamoto (2009) believes that SMS marketing can be a way for frequent fraudulent occasions. It is impossible to control reliability of the information through traditional mobile messages. Besides, Information Resource Management Association of US (2015) emphasizes challenges for marketers and indicates to importance of databases. SMS marketing requires acquisition of appropriate database of customers, who can be turned into consumers. The process is challenging and calls effectiveness of mobile SMS marketing campaigns into questions, as it becomes difficult to control whether the target is potentially interested into the type of offered product and services or not.

Powell et al. (2013) point attention to digital messages platform and indicate to email marketing. The authors state that the method is similar to traditional marketing approaches. Though, it constitutes the first digital communication platform, which is still exploited for marketing purposes. Email marketing still can be used to deliver messages to numerous potential consumers. However, the thing is, email marketing does not give possibility to learn consumer behavior and analyze their reactions. In other words, it seems impossible to collect valuable quantitative data, with which marketers will be able to anticipate prospective impact and results. Moreover, Meyer (2017) makes comparison between email marketing and mobile SMS marketing. According to the author, SMS marketing seems more prolific way, as majority of the people use Smartphone devices and they can read messages in couple of seconds. Besides, the author increases role of Smartphone in digital marketing. Spent time on mobile devices is on the rise. Mobile devices are actively used for online purchases. Furthermore, digital communication through mobile devices has become key player in marketing. Furthermore, as Persaud and Azhar (2012) tested, shopping styles, brand trust and different values are key motivators for customers to get engaged into mobile marketing. The authors suggested marketers to focus on incentives and increase engagement through mobile marketing.

Rodney and Wakeham (2016) emphasized importance and popularity of social media channels. The authors claimed that media sharing networks became part of everyday life. Usage of mobile devices was considered as one of the driven forces for effectiveness of social media marketing. Moreover, Bianchi and Andrews (2015) agreed with above mentioned authors and drew attention to possibility of mobile applications. Applications of media sharing networks increase engagement and attractiveness. Moreover, development of various social media applications has made Smartphone more influential and important device, as it is very possible to use social media channels through Smartphone. According to statistics, usage of social media channels on mobile devices is on incredible rise. Number of social media users is expected to keep rising. Popularization of mobile technologies has contributed to development of social media channels as well. Most of social media platforms actively consider improvement of mobile applications to increase engagement and popularity of the digital channels. "Facebook" is a key player social media channel, which constantly keeps going forward. By January 2019, rate of global mobile penetration was 45%, whereas global mobile social media penetration reached 42% and active mobile social media users were more than 3 billion. (Clement, 2019)

However, despite popularity of Smartphone and mobile marketing, without empirical study it is impossible to evaluate consumers' behaviour towards mobile marketing. (Park et al., 2008) As Yu and Cude (2008) state, without appropriate quantitative empirical research, it is quite difficult make a claim and to prove effectiveness of mobile marketing. It is not clear to what kind of mobile ads consumers react positively and negatively.

3. RESEARCH METHOD

Due to different nature and objectives, every study requires appropriate research method to answer research questions and reach objectives. According to Powell and Connaway (2010) research is experiment, which can be theoretical and scientific, concentrated on problem solving issues. Every type of research requires understanding of research methods, in order to conduct appropriate investigation. As Bauman and Walker (2013) reports, research can be quantitative, as well as qualitative. The data collection technique depends on objectives of the study and major aim of the researcher.

Major aim of this scientific article is to investigate consumer behaviour and analyze how consumers react to various advertisements on mobile devices. Therefore, due to nature of the study, the research should be quantitative, in order to analyze responses from respondents and evaluate their behaviour towards ads. With reference to population

sampling, convenience sampling method can be considered the most acceptable and reliable for this particular study. Convenience sampling is a category of non-probability, which is the most budget and time saving method.

4. RESEARCH OBJECTIVE

The objective of the study was following:

1. The relevance of SMS marketing in the digital era versus traditional marketing
2. The influence of SMS marketing on consumer behavior

5. DATA ANALYSIS

The target population of the study was individuals who have received and were targeted with SMS marketing. All participants were supportive and enthusiastic to participate in the study. They willingly provided their feedback to the asked questions.

The data collection was conducted between December 22nd, 2019 – January 21st, 2020. The population size for a mini survey was 80. The study sent more than 300 invites to participate in the survey. From the estimated participants 64 responded to the survey, which is an 80 % completion rate. Out of 64 participants, age distribution was as follows: 6 (9%) were “18-22”, 22 (34%) were “23-27”, 14 (22%) were “28-32”, 11 (17%) were “33-37”, 6 (9 %) were “38-42” and 5 (8%) were “42+”.

The study wanted to see a comparison of how participants react to an advertisement on “TV and Radio”, versus “Social Media Channels” versus “SMS”. The study used a Likert scale. The study asked; On a scale of 1-5 (1-being lowest, 5-being highest), evaluate on what degree you pay attention to ads on “Tv and Radio”. The Figure 1.1 illustrates following: 10 (15.6%) ranked “TV and Radio” as “1”, 8 (12.5%) ranked “2”, 18 (28.1%) ranked “3”, 18 (28.1%) ranked “4” and 10 (15.6%) ranked it “5”.

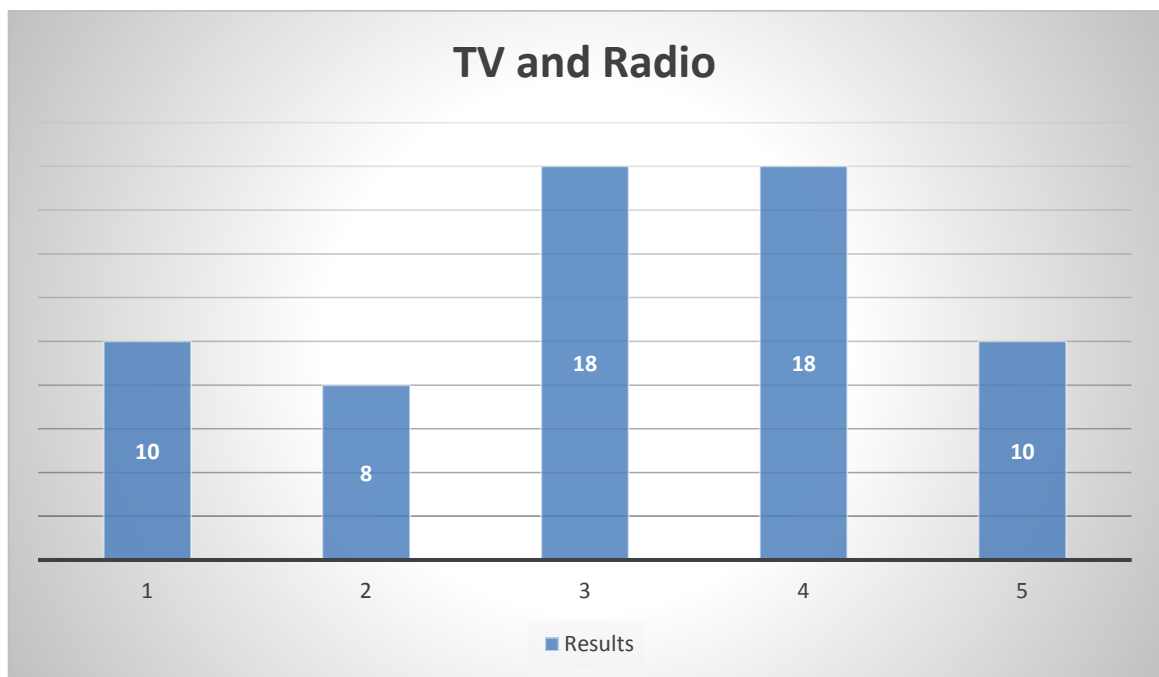


Figure 1.1 Evaluate to what degree you pay attention to ads on Tv and Radio

The study asked; On a scale of 1-5 (1-being lowest, 5-being highest), evaluate on what degree you pay attention to ads on “Social Media Channels”. The Figure 2.1 illustrates following: 3 (4.7%) ranked “Social Media Channels” as “1”, 11 (17.2 %) ranked “2”, 9 (14.1%) ranked “3”, 20 (31.3%) ranked “4” and 21 (32.8%) ranked it “5”.

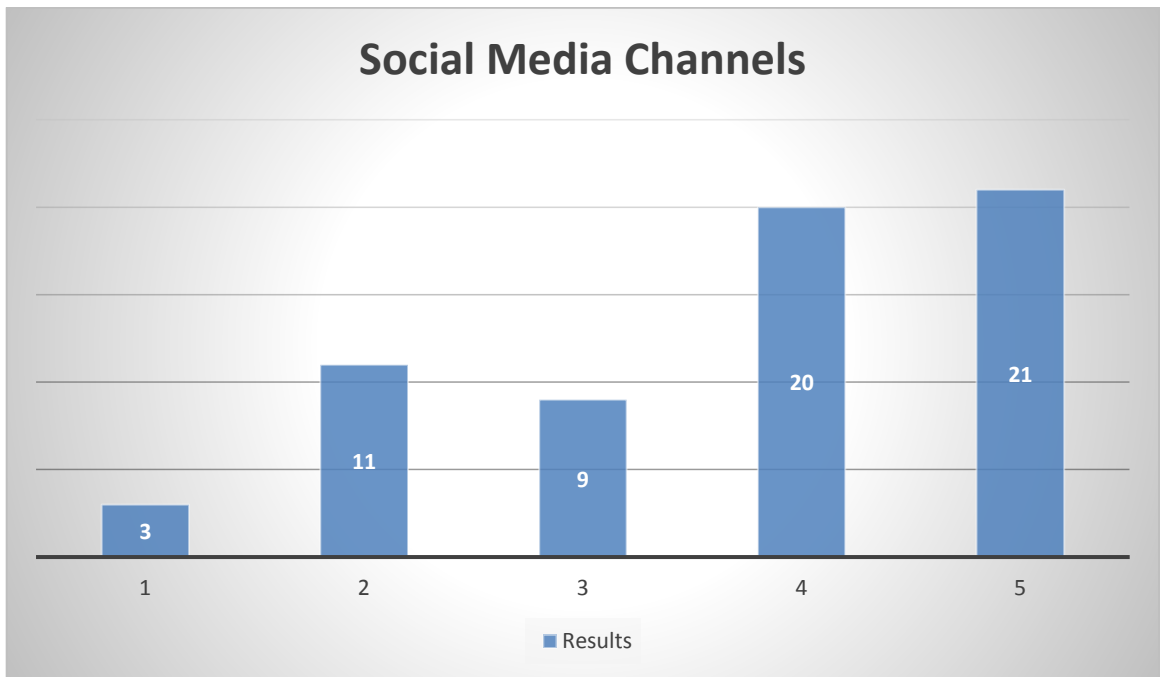


Figure 2.1 Evaluate to what degree you pay attention to ads on Social Media Channels

The study asked; On a scale of 1-5 (1-being lowest, 5-being highest), evaluate on what degree you pay attention to ads received on “SMS”. The Figure 3.1 illustrates following: 6 (9.4 %) ranked “SMS” as “1”, 5 (7.8 %) ranked “2”, 11 (17.2%) ranked “3”, 27 (42.2 %) ranked “4” and 15 (23.4%) ranked it “5”.

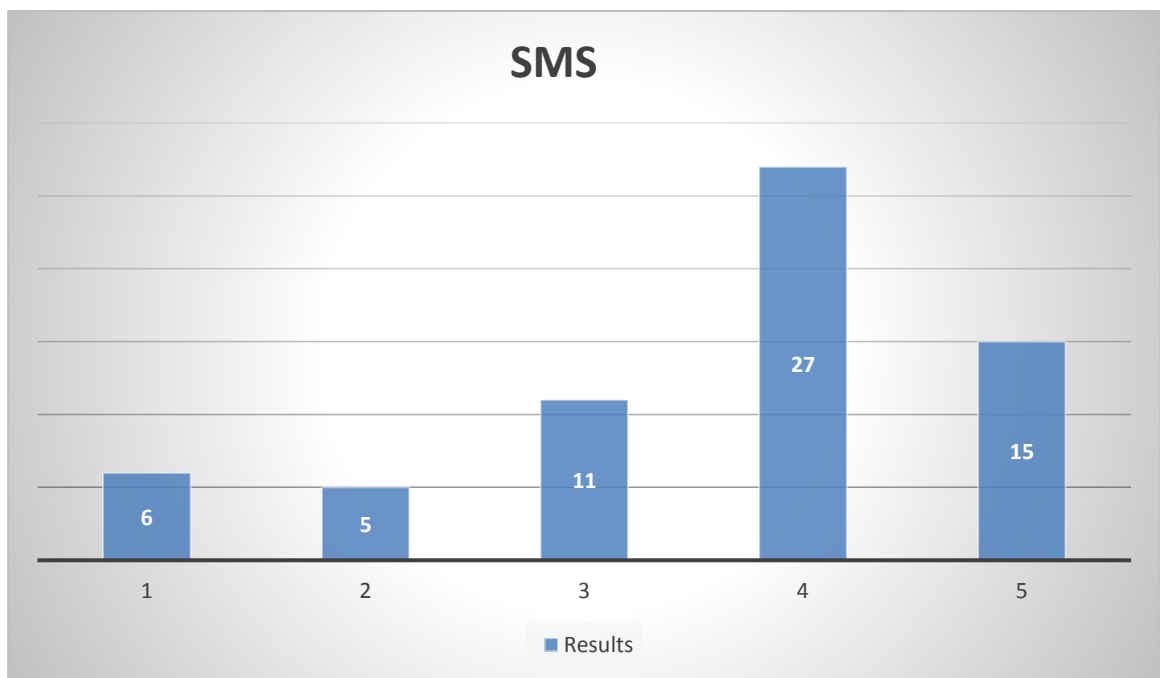


Figure 3.1 Evaluate to what degree you pay attention to ads via SMS

The next following questions the study concentrated on the relevance of SMS marketing. The study asked, generally, how important was SMS marketing for respondents. The Figure 4.1 below illustrates following: 2 (3 %) believes that “SMS” marketing is “Very Important”, 27 (42%) believes it is “important”, 14 (22%) were “Neutral”, 14 (22%) believe “Generally Important”, and lastly 7 (11%) believe “Not At all”.

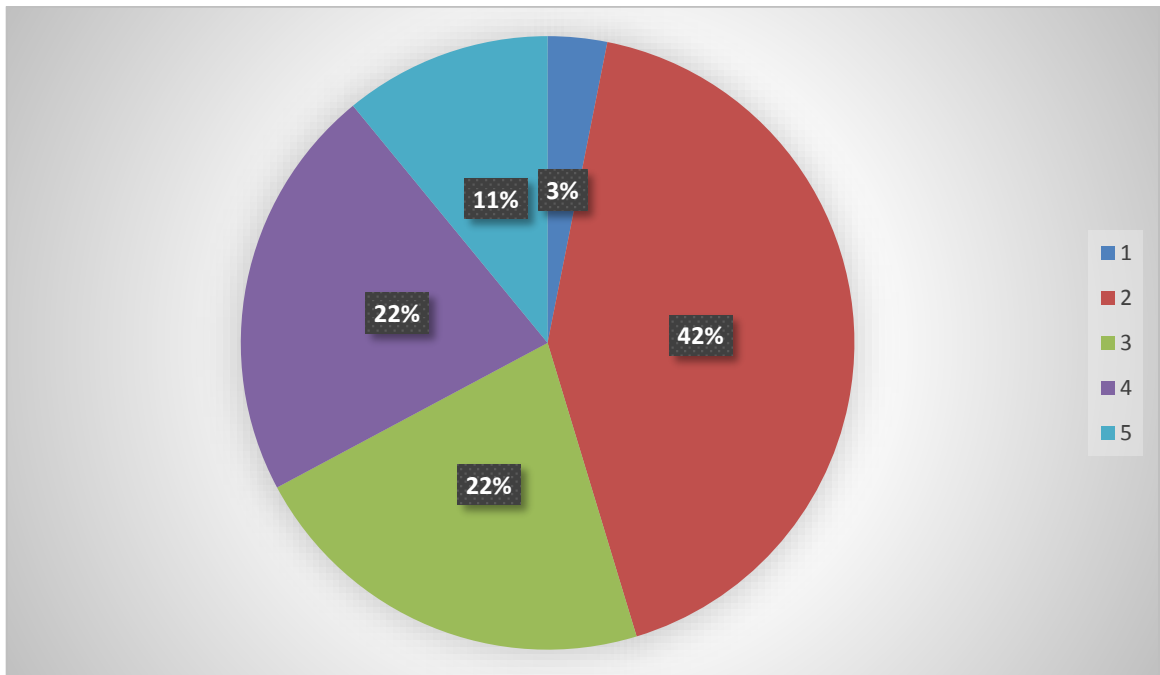


Figure 4.1 SMS Advertisements are important to me

The study asked, do you believe that through SMS promotions brand is trying to establish close communication with you? The Figure 5.1 below illustrates following: 17 (27 %) says “Strongly Agree”, 29 (45%) “Agree”, 12 (19%) “Neutral”, 2 (3%) “Disagree” and 4 (6%) “Strongly Disagree”.

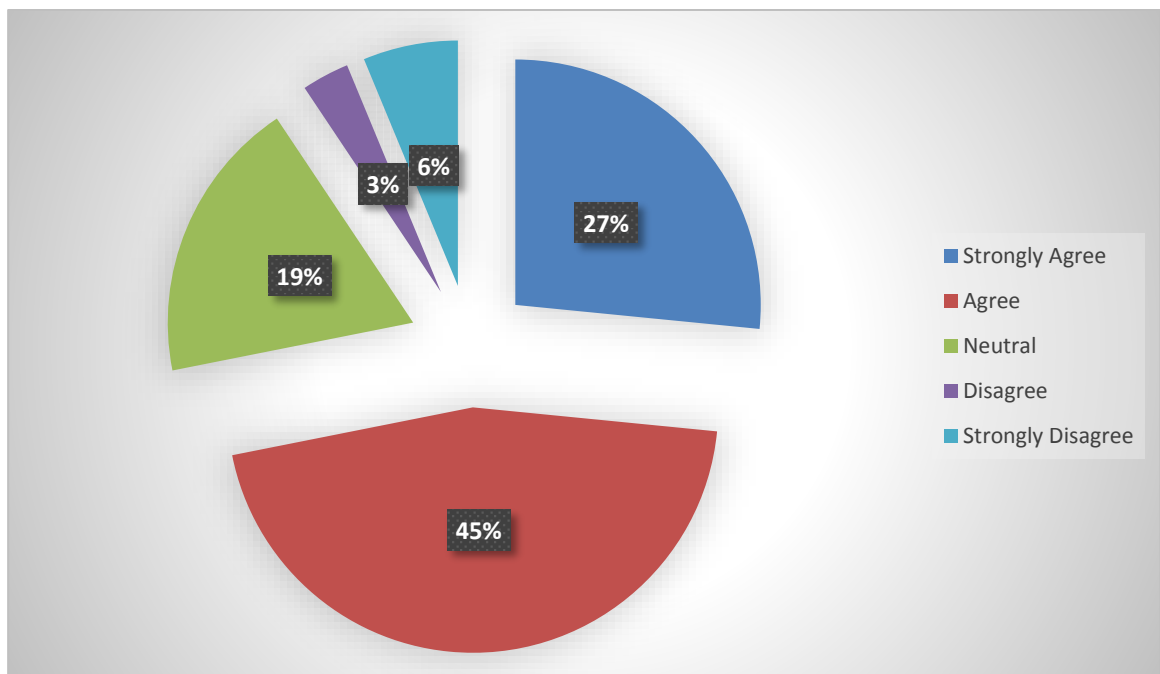


Figure 5.1 Through SMS promotions brand is trying to establish Communication with you

The study asked, do you receive SMS promotions every day on various products and services. The Figure 6.1 below illustrates following: 39 (61%) says “Strongly Agree”, 23 (36%) “Agree”, 1 (2%) “Neutral”, 0 (0%) “Disagree” and 1 (2%) “Strongly Disagree”.

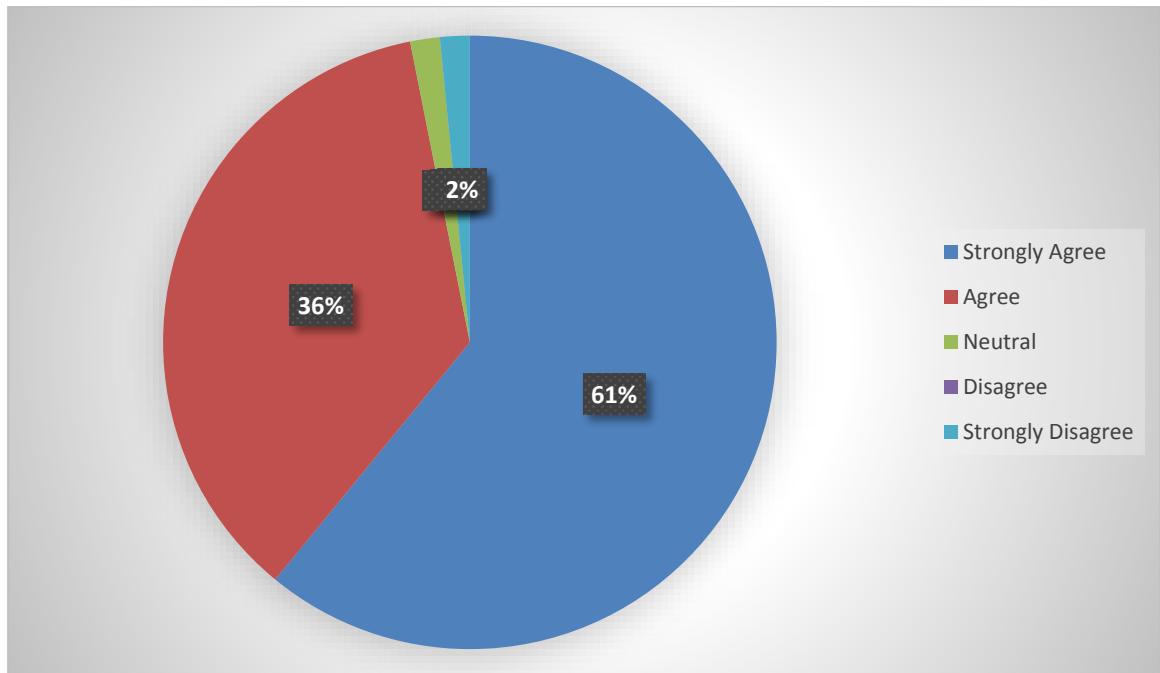


Figure 6.1 I receive SMS promotions every day on various products and Services

The study asked, do you always read received SMS promotions. The Figure 7.1 below illustrates following: 9 (14.1%) says “Strongly Agree”, 31 (48.4%) “Agree”, 11 (17.2%) “Neutral”, 10 (15.6%) “Disagree” and 3 (4.7%) “Strongly Disagree”.

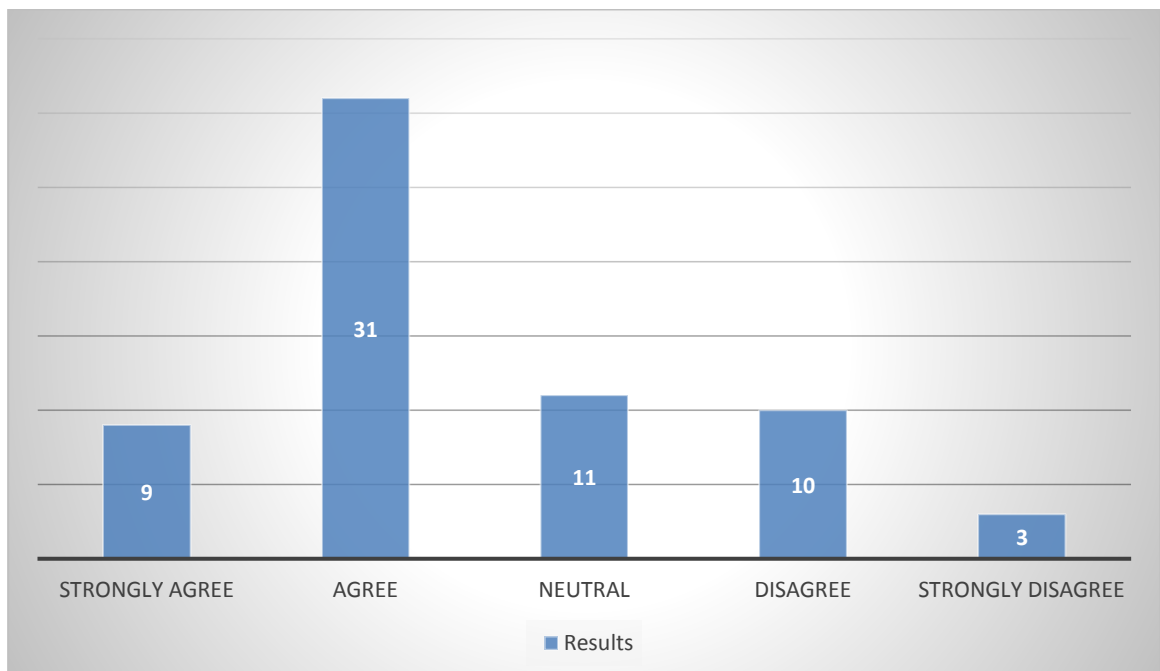


Figure 7.1 I always read received SMS promotions

The study asked, do you receive detailed information on your current offers from SMS promotion? The Figure 8.1 below illustrates following: 7 (11%) says “Strongly Agree”, 13 (20%) “Agree”, 26 (41%) “Neutral”, 13 (20%) “Disagree” and 5 (8%) “Strongly Disagree”.

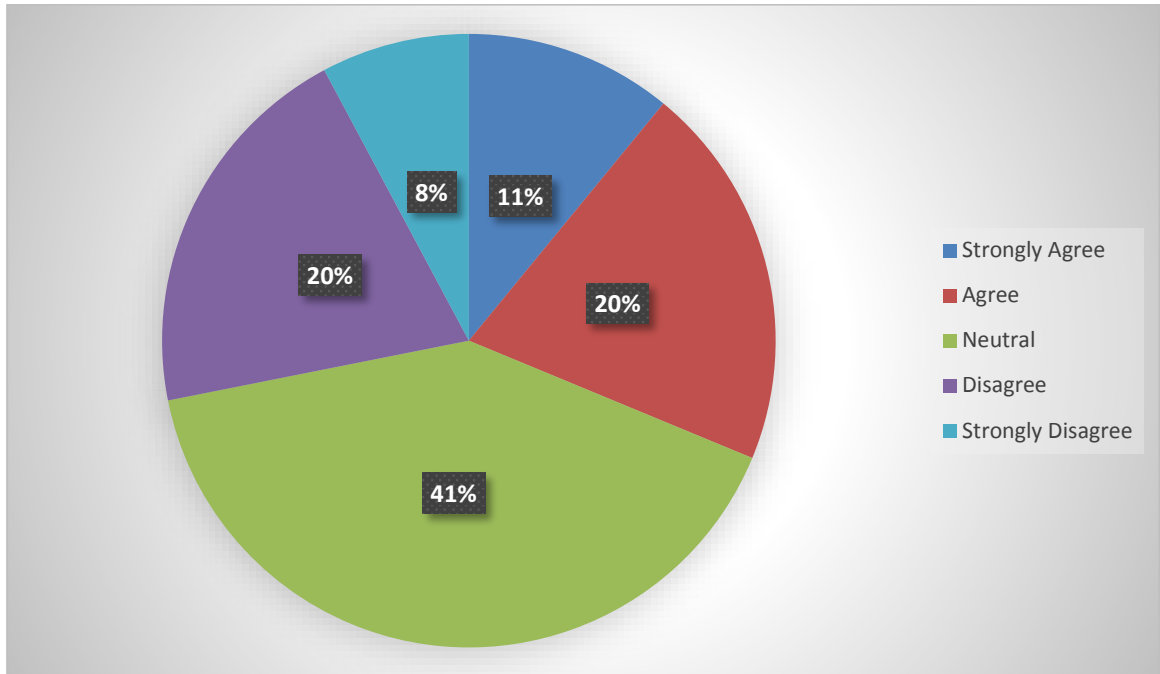


Figure 8.1 Through SMS promotions I get more detailed information on current offers

The study asked, do you believe that information received via SMS on product or service is reliable? The Figure 9.1 below illustrates following: 2 (3.1%) says “Strongly Agree”, 34 (53.1%) “Agree”, 19 (29.7%) “Neutral”, 3 (4.7%) “Disagree” and 6 (9.4%) “Strongly Disagree”.

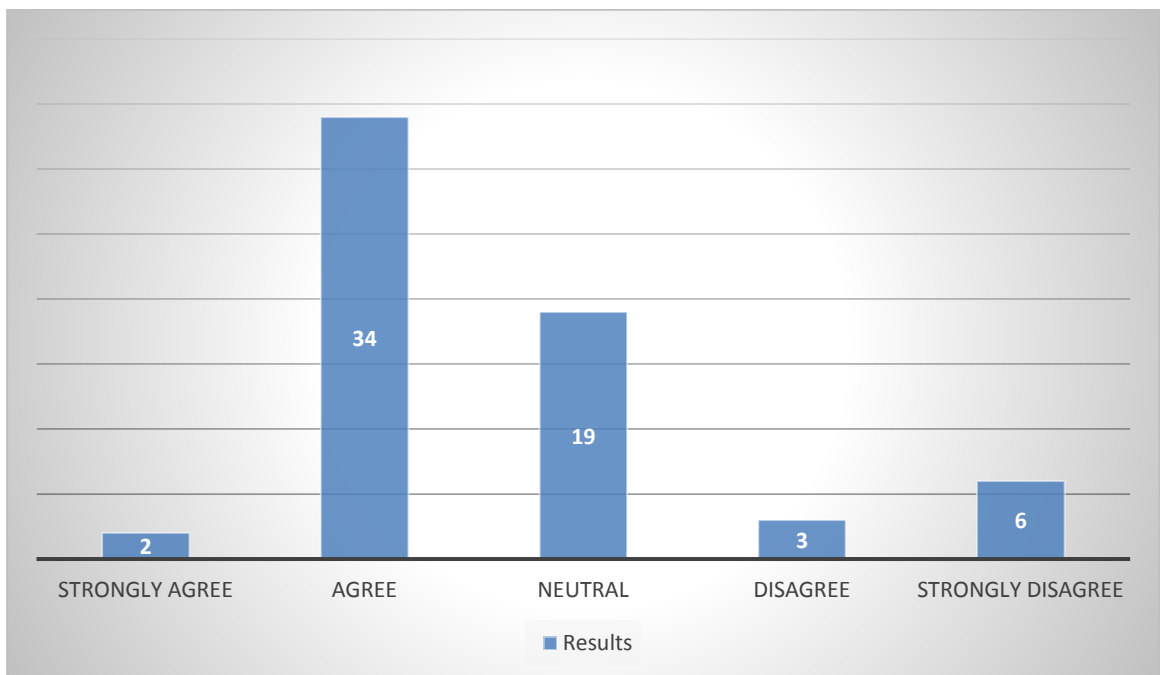


Figure 9.1 I believe that information received via SMS on product or services is reliable

The study asked, do you only receive SMS promotions on the products or services that you are interested in? The Figure 10.1 below illustrates following: 0 (0%) says “Strongly Agree”, 2 (3.1%) “Agree”, 2 (3.1%) “Neutral”, 25 (39.1%) “Disagree” and 35 (54.7%) “Strongly Disagree”.

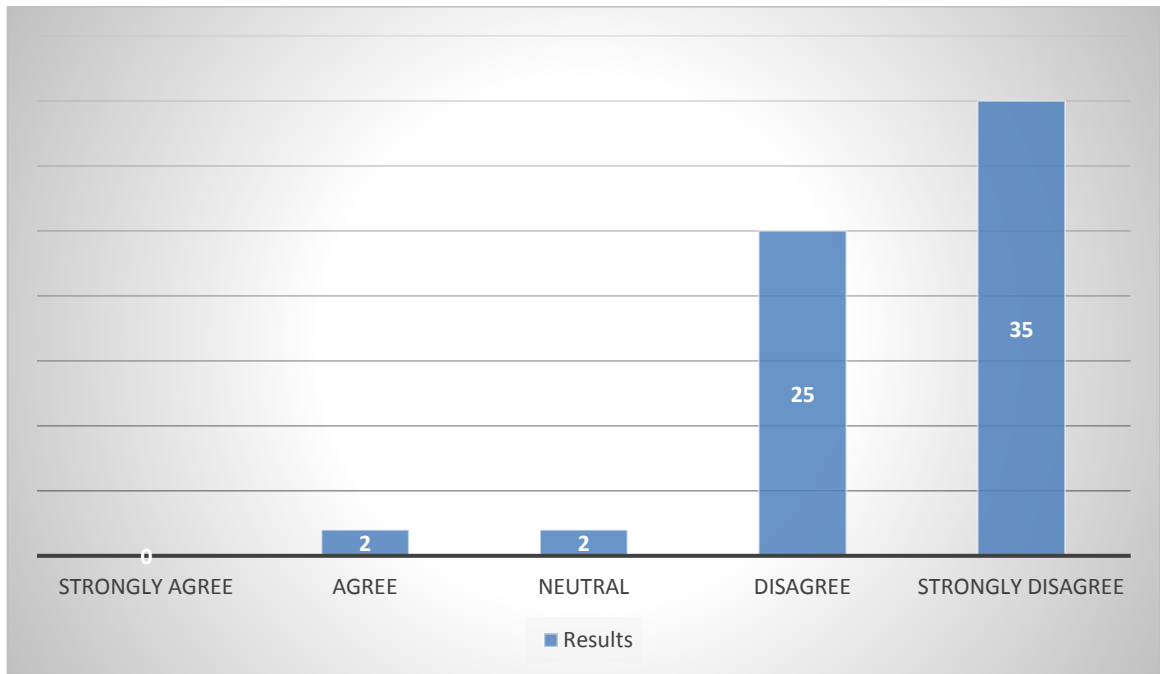


Figure 10.1 I only receive SMS promotions on the products or services I am interested in

The study asked, do you often receive SMS promotions, which are no part of your interest? The Figure 11.1 below illustrates following: 40 (62.5%) says “Strongly Agree”, 22 (34.4%) “Agree”, 1 (1.6%) “Neutral”, 1 (1.6%) “Disagree” and 0 (0%) “Strongly Disagree”.

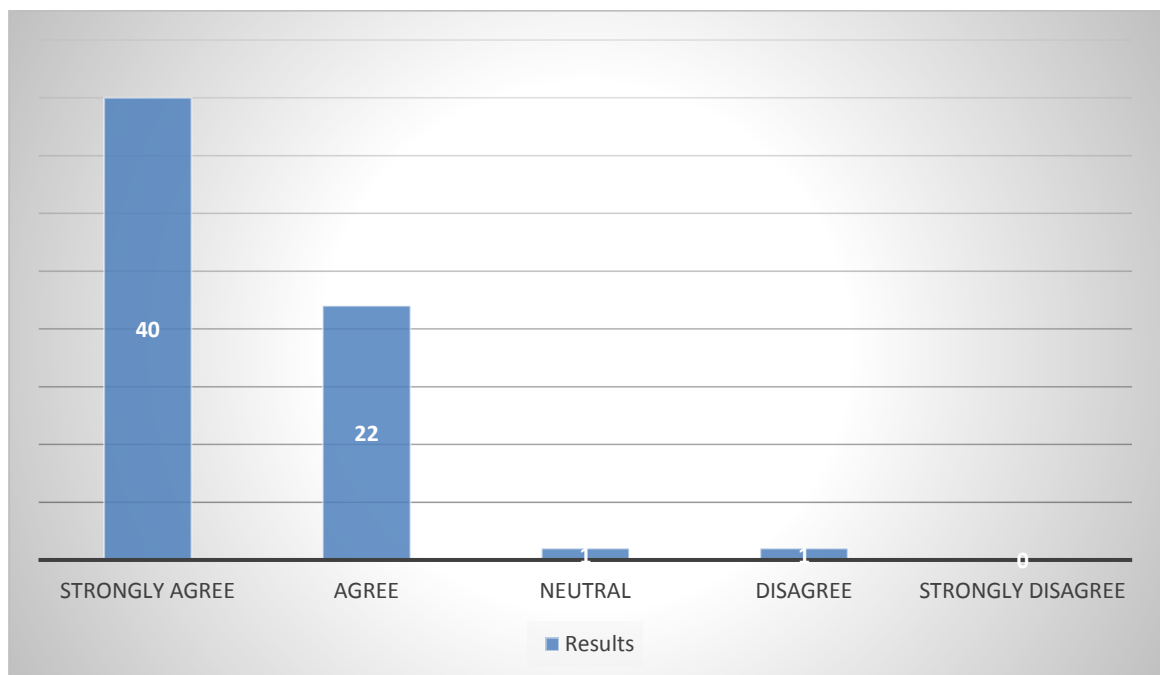


Figure 11.1 I often receive SMS promotions, which are not part of my interest

The study asked, do you believe that via SMS promotions, brands should deliver information on current special offers? The Figure 12.1 below illustrates following: 16 (25%) says “Strongly Agree”, 29 (45%) “Agree”, 14 (22%) “Neutral”, 2 (3%) “Disagree” and 3 (5%) “Strongly Disagree”.

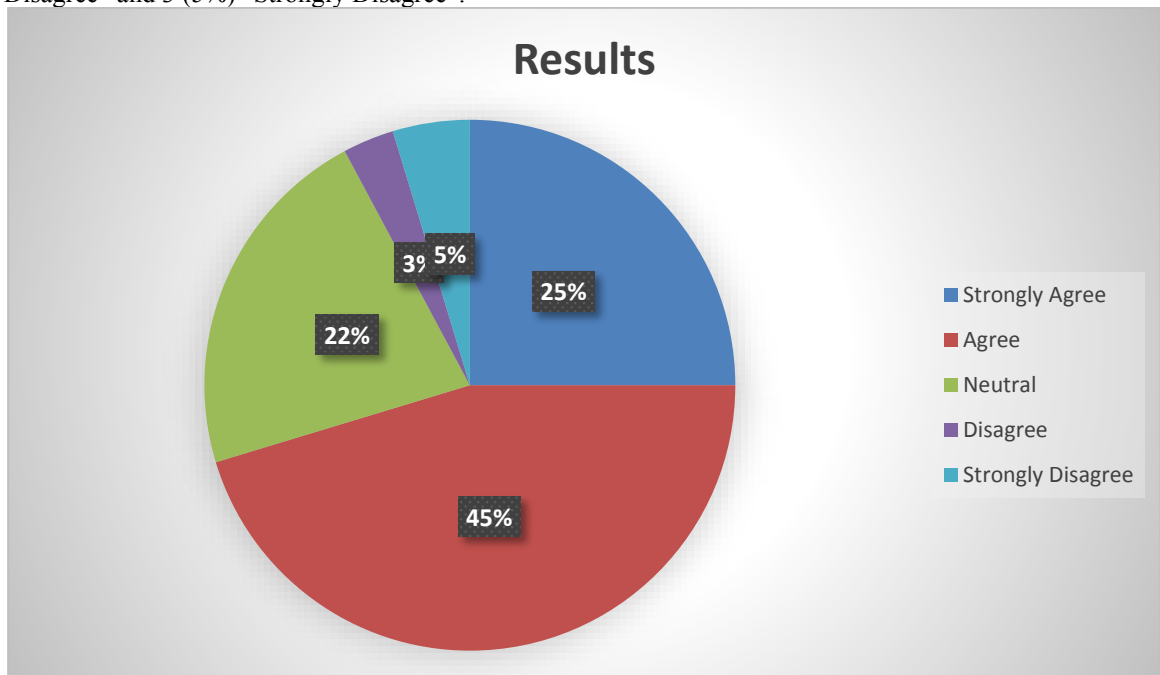


Figure 12.1 Via SMS promotions brands should deliver information on current special offers

The study asked, do you agree that more than 1 SMS promotion from the same company is not acceptable for you? The Figure 13.1 below illustrates following: 24 (37.5%) says “Strongly Agree”, 27 (42.2%) “Agree”, 12 (18.6%) “Neutral”, 1 (1.6%) “Disagree” and 0 (0%) “Strongly Disagree”.

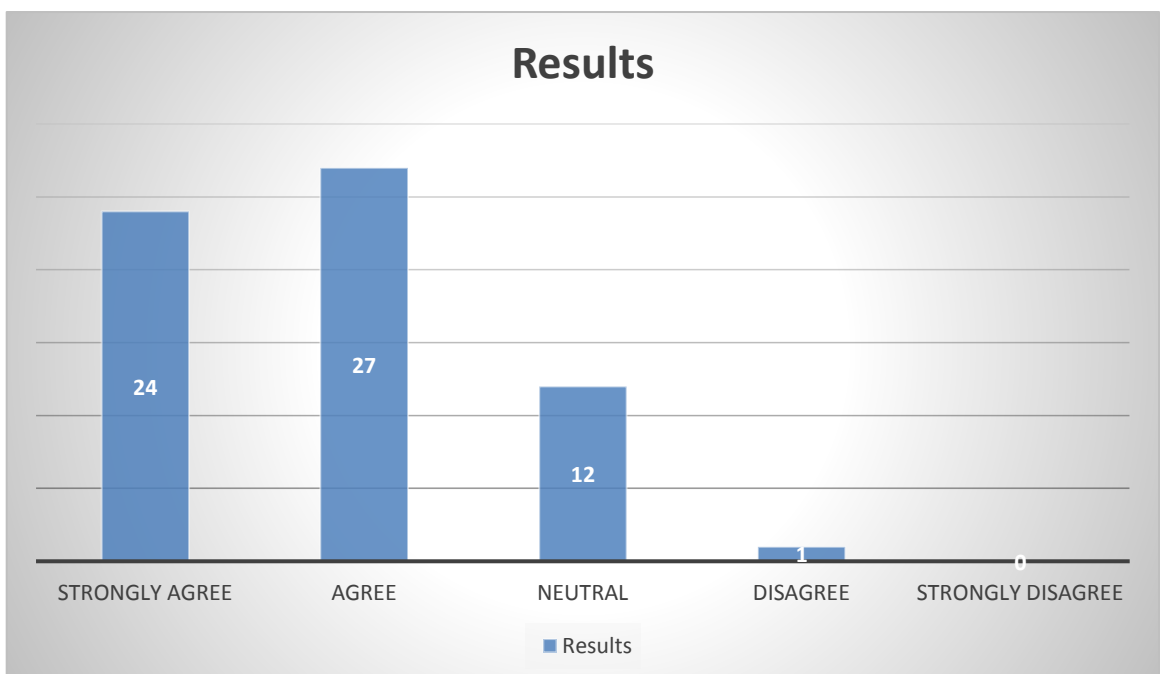


Figure 13.1 More than 1 SMS promotion from the same company is not acceptable

6. FINDINGS AND DISCUSSIONS

In today's digital environment knowing consumer behaviors are crucial. Businesses constantly to create goods and services to satisfy needs and wants, however, still it is hard to understand impulsive consumer behaviors. Industry 4.0 era allows digitalization. While businesses employ brand new technologies, they also apply various styles of advertisements. That brings us to SMS marketing.

The study began with the first three questions that asked respondents to share their feelings on "TV and Radio", "Social Media Channels" and "SMS" advertisings. Respondents ranked "TV and Radio" advertising interestingly well. It received a positive review, where majority rankings were "3", "4" and "5". On the other hand, "Social Media Channel" advertisings received positive feedback too. The majority of respondents ranked it high above average. Moreover, "SMS" advertising was in the same range of rankings. The study believed that even though there are new ways of advertising, society is not yet ready, or getting used to new approaches. Not many people would like to receive SMS messages on their cell phones yet.

Respondents also believe that "SMS" advertising is very important. Most respondents believe that the brand is communicating promotions and creates awareness. The study believes that "SMS" advertising has more future and will be crucial for consumer behaviors. Those type of advertisements might improve their decision-making process. Respondents also claim that they receive SMS promotions every day.

There is nothing wrong with companies to create SMS advertisements and promote their goods and services. However, the companies with their marketing teams must understand that they need to have a segmentation, and target populations by the needs. The study believes that unorganized SMS marketing might because of losing potential or even returning customers. Respondents agree that they all read received SMS promotions, however, the study asks the question, how effective it might be if that SMS is not in their sphere of interest?

The study finds that SMS advertising has huge content, and it contains information about various promotions. Many customers buy those ads; however, the question is how reliable is the information? In the study, the consumer says that it has reliable information, however, we must think about the other side. Marketing strategies must be very careful. Today's competitive market is very sensitive. If customers do not like something, within a second they become consumers of the products and services from the competition.

The study asked two almost identical questions; first, I only receive SMS promotions on the products or services I am interested in, and second, I often receive SMS promotions, which are not part of my interest. This was done on purpose to see how respondents react, and how they would evaluate the information given to them. It was no surprise that on the first question, the majority of respondents "strongly disagreed", however, on question two, they "strongly agreed". It was a small experiment within to see, how the study respondent analyses information as in SMS marketing they also would receive the same information but with a different format.

In general, promotions are intended to persuade a broader audience. It might be products and services offered, or sharing brand information, and so on. SMS promotions must create awareness, raise the interest rate, and importantly generate sales. Respondent strongly agrees that SMS promotions should deliver the current offer, however, they also strongly agree that more than 1 SMS is not acceptable from the same company.

At the end of the day, marketers must understand that SMS marketing is a new thing. Many still follow traditional advertising. The approaches to SMS marketing must be particular. Marketers must not forget about 4P's and 4C's. Product, price, place, and promotion must work well with Customer want and needs, Cost, Convenience, and Communication.

7. CONCLUSION AND RECOMMENDATIONS

To conclude and sum up the discussion, mobile marketing seems very actual and popular. The consumers perceive SMS promotional advertisings positively. They read SMS advertisements to get useful and reliable information from

companies regarding their offers or various activities. As they believe, companies can establish close and effective communication with them via promotional messages.

SMS marketing is cost-saving and one of the cheapest ways to deliver information to consumers, as well as prospective consumers and to increase their brand awareness. For example, the cost of SMS campaigns ranges from 1.5 to 0.32 Tetri, which is equal to 0.5 - 0.15 cents in Georgia. The price depends on the quantity of the messages. However, as it can be noticed, mobile marketing has a kind of limitation. It is complicated to focus on the most appropriate target. Targeting is one of the most essential factors in marketing. Without the right choice, the campaigns may lead companies to negative consequences. It is important to have set the right audience and target the most appropriate people, who may be interested in the offer and why it may turn into consumers. Otherwise, SMS campaigns will not make any sense and the resource will be squandered without relevant results.

Targeting is the most delicate issue. Besides, the companies should take into consideration the frequency of the campaigns. Rare messages may increase brand awareness of customers better, than frequent promotional campaigns, which may be capable to irritate customers and motivate them to ignore the ads. Thus, mobile marketing requires analysis of the audience and the messages should be sent to those, who mostly can be interested in the specific campaign. It will be more beneficial for companies if SMS marketing is used in conjunction with other tools of marketing.

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Structured Expert Interviews: The Relevance of Leader Attitudes in the Leadership Process in Real Estate Development Companies

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Abstract

Purpose: The topic of leadership underlies extensive research in management science. In general, research on the trait approach to leadership can be considered as inconsistent and partly contradicting. The aim of this article is to examine how leader attitudes affect the leadership process of employees working in real estate development companies from the experts' point of view.

Methodology: The author conducts structured expert interviews to identify how certain leader attitudes affect the leadership process. In total, nine participants took part in the survey from which six are leaders in real estate development companies, two are scientific staff members and one consultant.

Results: The results show that certain leader attitudes are more relevant in the leadership process. The author applied several statistical tests in order to thoroughly examine the relevance of leader attitudes. In particular, for leaders with ten years or less work experience the leader attribute respect is more relevant compared to experts with more than ten years of work experience. In addition, for experts who are above forty-five years of age, the leader attitude openness is considered to be more relevant in leadership than for experts who are forty-five years of age or younger.

Novelty: This paper broadens the understanding of the trait approach to leadership. In particular, the study shows that the relevance of certain leader attitudes varies over the time. It could be examined that work experience and age affect the relevance of leader attitudes in leadership.

Keywords: leader attitudes, real estate development companies, structured expert interviews

1. INTRODUCTION AND TOPIC ACTUALITY OF THE TRAIT APPROACH TO LEADERSHIP

To begin with, theories of leadership are in general aimed at explaining determinants of leadership emergence or the nature of leadership and the outcomes (Bass, 1990, p. 37). One of the first theories of leadership can be found in the trait theory which aims to identify traits and skills of leaders (Yukl, 2013, p. 142). In the mid-20th century, researchers started questioning if leaders possess a universality of leadership traits (Northouse, 2016, p. 19). The trait theory can be traced back to ancient Greeks and Romans who postulated that leaders do possess certain traits by birth. In general, leader traits can be defined as „*physical or personality characteristic that can be used to differentiate leaders from followers*“ (Kumar/Kaptan, 2007, p. 63). The trait approach is based on the Great Man theory whereas the trait approach offers first systematic attempts to explain leadership success based on certain qualities and skills (Rudani, 2013, p. 546).

For Bertocci (2009), the trait theory is worthy of study due to the attempt to forecast leadership effectiveness from different viewpoints such as physical, sociological and psychological (Bertocci, 2009, p. 20). Similarly, Bryman (1999) highlights that the trait theory can be categorized into three major groups: physical traits, abilities and personal characteristics (Bryman, 1999, p. 27). Yukl (2013) stresses that numerous studies in the trait research

were executed over a long period of time of how traits and skills influence the emergence of leaders, the effectiveness as well as the promotion (Yukl, 2013, p. 144). Colbert/Judge/Choi/Wang (2012) point out that research results were often inconsistent (Colbert/Judge/Choi/Wang, 2012, p. 670). For example, Kirkpatrick/Locke (1991) postulate that traits matter in leadership. However, traits alone are not enough to be an effective leader as leaders must take actions in order to be successful. In general, drive, desire to lead, honesty/integrity, self-confidence, cognitive ability and knowledge of the business distinguish leaders from non-leaders (Kirkpatrick, Locke, 1991, p. 49). Mann (1959) performed an empirical study to examine how personality characteristics of individuals affects the performance in groups. Amongst others, it could be researched that intelligence is the best predictor of staff members' performance. Moreover, this trait is positively linked to several task contributions of employees (Mann, 1959, pp. 241, 264-265). Stogdill, for example, could identify several notable leadership traits of individuals who emerged in groups as leaders. The findings showed leaders differentiate from non-leaders in the following traits: intelligence, alertness, insight, responsibility, initiative, persistence, self-confidence, and sociability (Northouse, 2016, p. 20).

Research on personality is as old as the research of human nature itself (Judge/Bono, 2000, p. 752). Similarly, Yukl (2013) highlights that an integrative conceptual framework with few meta-categories makes it easier to categorize individual profiles and to detect relevant traits. Over the last decades, a small number of defined categories of personality traits emerged in the academic literature. One example can be found in the Five Factor Model that consists of extroversion, conscientiousness, neuroticism and openness to experience. Research showed that effective leaders were high on extroversion, conscientiousness and openness and lower on neuroticism. Nevertheless, research results varied across different types of organizations. Moreover, one further explanation for the contradicting results may be found in different criterion variables such as leadership emergence or effectiveness (Yukl, 2013, pp. 153-154).

In general, the trait theory meets the notion that leaders are extraordinary individuals who bring the society forward. In particular, this theory considers that leaders are special kind of individuals and gifted who show outstanding achievements. Moreover, Northouse (2016) emphasizes that the trait theory underlies a long period of time of research activities. Following that, the trait approach offers a deep understanding of how leader traits affect the leadership process. Besides, this theory solely focuses on the leader in the leadership process. Leadership consists of three components – the leader, the follower and the situation. Although this might be considered as downside that the trait theory only deals with the leader in the leadership process, it allows researchers to gain deep understandings in the complex structures of how leaders influence leadership. Finally, the theory sheds light on the traits that are beneficial in leadership. Therefore, trait assessment procedures can be carried out in order to receive information about strengths and weaknesses of leaders in the leadership process and approaches of how to enhance leadership effectiveness (Northouse, 2016, p. 30).

For Yukl (2013), the trait approach made considerable progress in detecting traits and skills to be essential for leadership effectiveness and development. Research on the trait approach suffers under methodological and conceptual constraints. This is argued that most studies are not based on a theory that explains how leader traits affect managerial effectiveness. Moreover, a further limitation of the trait theory is that context related variables are not considered properly as behaviours vary in different leadership positions (Yukl, 2013, p. 163).

Based on the results from the content analysis performed by Lauck (2019), the author now conducts structured expert interviews on how trust, motivation, loyalty, respect, communication, openness, and empathy of leaders towards their staff members affect the leadership process (Lauck, 2019, p. 191). In the following chapter two, the author performs the quantitative analysis with SPSS Version 26.

2. QUANTITATIVE ANALYSES: THE RELEVANCE OF LEADER ATTITUDES IN THE LEADERSHIP PROCESS IN REAL ESTATE DEVELOPMENT COMPANIES

The numerous forms of data collection in social sciences are aimed at receiving precise knowledge about humans in a certain field. In general, data collection methods range from observation case studies, content analyses, questionnaires to interviews. In this respect, interviews can be considered „as a systematic method by which a

person enters more or less imaginatively into the life of complete strangers.“ Overall, interviews have two major targets: discovery and measurement. Discovery focuses on gaining new expertise about the variables to be researched and helps to clarify the conceptual framework. Measurement describes the topic control in an effective and efficient manner (Kumar, 2008, pp. 82-83). According to Bryman/Bell (2015), research interviews are a dominant research technique in quantitative and qualitative research (Bryman/Bell, 2015, p. 211). In general, three major types of interview methods exist (Saunders/Lewis/Thornhill, 2009, p. 323):

- structured
- semi-structured
- unstructured

In particular, structured expert interviews allow the researcher to distribute the exact interview questions to all participants. Therefore, interview partners read the questions in the exact desired order as they are printed. The questions are formulated in specific way and offer exact answer options. (Bryman/Bell, 2015, p. 211). Therefore, quantitative research is described, according to Weischer (2007), as little differentiated under the application of numerical codes to test correlations of specific parameters. Moreover, individual particularities remain unconsidered in favour of general trends to gain statements on the basis of probabilistic conclusions on the population (Weischer, 2007, p. 85).

Gläser/Laudel (2010) define the term expert as „specific role of interview partners as source of expertise about the social situations to be researched. Expert interviews are a method to gain new knowledge.“ Therefore Gläser/Laudel (2010) derive that expert interviews are a specific method to be applied for a specific purpose. Research activities based on expert interviews are commonly applied in social sciences to gain insights into the desired situation (Gläser/Laudel, 2010, p. 12). Overall, Gläser/Laudel (2010) highlight that expert interviews have two characteristics in common (Gläser/Laudel, 2010, pp. 12-13):

1. An expert is a medium through which the social scientist gains knowledge about a certain situation. Therefore, experts are not the object of the research but possess appropriate information. The mental world, feelings and attitudes are only of interest if it is of relevance for the underlying research.
2. Experts do have an exclusive position in the social context which the researcher wants to examine.

In this research the author defines an expert as individual who has at least five years of work experience in real estate development companies and a master's degree. In the following figure, the author illustrates the distribution of the expert participation.

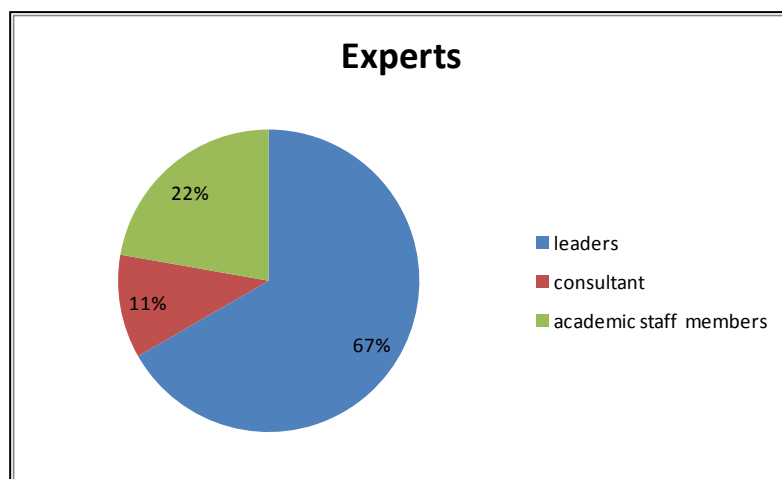


Fig. 1. Distribution of participated experts
Source: author

Figure 1 shows that 67% of experts are leaders in real estate development companies and 22% of experts are individuals working at universities. Finally, 11% of the experts are consultants in real estate development companies. After having discussed the distribution of experts, the author performs the test of normality using the Shapiro-Wilk test in SPSS.

According to Sen/Srivastava (1990), the Shapiro-Wilk has become a well-established test to determine the normality of the data for small sample sizes (e.g. $N < 50$) (Sen/Srivastava, 1990, p. 105) and is grounded on the observed distance between symmetrically positioned data values (de Sá, 2003, p. 156). The following figure 2 illustrates the test of normality with SPSS Version 24.

Table 1. Test of Normality
Source: author's calculation with SPSS

	Test of Normality		
	Shapiro-Wilk Statistic	df	Significance
Trust	,684	9	,001
Respect	,748	9	,005
Openness	,808	9	,025
Empathy	,913	9	,338
Motivation	,763	9	,008
Integrity	,710	9	,002
Communication	,655	9	,000
Loyalty	,844	9	,065

The results in table 1 show that the majority of the data are not normally distributed and require the application of non-parametric tests. According to Daly/Bourke (2000), non parametric tests make fewer assumption about the data distribution and are useful and recommended for smaller sample sizes (Daly/Bourke, 2000, p. 207). In this paper, the author aims to examine differences between two groups.

The Mann-Whiney test is developed to analyze the data from two different samples in order to determine the differences between the populations (Gravetter/Wallnau, 2009, p. 668). The Mann-Whitney test is the non-parametric counterpart of the independent t-test and is applicable for ordinal, interval and ratio data (Carver/Nash, 2009, p. 250). In the following, the author performs the Mann-Whitney-U-test to examine four research questions.

Research Question 1: Is there a difference between leaders' and scientists' perception about the relevance of leader attitudes?

Table 2. Mann-Whitney-U-Test 1
Source: author's calculation with SPSS

Test Statistics (Mann Whitney U Test) ^a								
	Trust	Respect	Openness	Empathie	Motivation	Integrity	Communication	Loyalty
Mann-Whitney U	4,000	6,500	5,500	3,000	3,000	3,000	6,500	5,000
Wilcoxon W	32,000	34,500	33,500	31,000	6,000	31,000	9,500	33,000
Z	-1,050	-,162	-,469	-1,246	-1,309	-1,309	-,169	-,617
Asymp. Sig. (2-tailed)	,294	,871	,639	,213	,190	,190	,866	,537
Exact Sig. [2*(1-tailed Sig.)]	,500 ^b	,889 ^b	,667 ^b	,333 ^b	,333 ^b	,333 ^b	,889 ^b	,667 ^b

a. Grouping Variable: Gruppe

b. Not corrected for ties.

The results show no significant difference between leaders' and scientists' perception about the relevance of leader attitudes.

Research Question 2: Is there a difference between the relevance of leader attitudes of experts with less work experience (≤ 10 years) and more work experience (>10 years)?

Table 3. Mann-Whitney-U-Test 2
Source: author's calculation with SPSS

Test Statistics (Mann Whitney U Test)^a

	Trust	Respect	Openness	Empathie	Motivation	Integrity	Communication	Loyalty
Mann-Whitney U	6,500	,000	7,000	5,000	4,000	8,000	6,500	5,500
Wilcoxon W	16,500	10,000	22,000	15,000	14,000	18,000	21,500	15,500
Z	-1,025	-2,711	-,786	-1,303	-1,643	-,548	-,990	-1,162
Asymp. Sig. (2-tailed)	,306	,007	,432	,193	,100	,584	,322	,245
Exact Sig. [2*(1-tailed Sig.)]	,413 ^b	,016^b	,556 ^b	,286 ^b	,190 ^b	,730 ^b	,413 ^b	,286 ^b

a. Grouping Variable: Gruppe

b. Not corrected for ties.

The rejection of the null hypothesis is summarized under the probability (p-value). The author defines as cut-off value 0.05. In case the p-value is less than 0.05, the null hypothesis is being rejected (Elliott/Woodward, 2007, p. 9).

For respect, the p-value is less than 0,05 thus indicating a significant result. In order to determine which group is affected, the author calculates the median for both groups of experts.

Table 4. Median 1
Source: author's calculation with SPSS

Statistics

Respect				
Group 1: Experts with more than 10 years work experience	N	Valid	4	
		Missing	0	
	Median	3,50		
Group 2: Experts with 10 years or less work experience	N	Valid	5	
		Missing	0	
	Median	5,00		

The results show that for experts with ten years or less work experience, the leader trait respect is considered to be more relevant compared to experts with more than ten years of work experience. In this respect, the effect size (ES) needs to be taken into account which is calculated as follows (Corder/Foreman, 2009, p. 59):

$$ES = \frac{|z|}{\sqrt{n}}$$

= 0,904 (1)

According to Cohen (1992), an effect size of 0,904 can be considered as large effect (Cohen, 1992, p. 157).

Research Question 3: Is there a difference regarding the relevance of leader attitudes between Austrian experts and experts from other countries?

Table 5. Mann-Whitney-U-Test 3
Source: author's calculation with SPSS

Test Statistics (Mann Whitney U Test)^a

	Trust	Respect	Openness	Empathie	Motivation	Integrity	Communication	Loyalty
Mann-Whitney U	8,000	6,000	5,000	9,000	3,000	9,000	7,500	7,000
Wilcoxon W	14,000	12,000	26,000	30,000	9,000	30,000	28,500	13,000
Z	-,309	-,857	-1,104	,000	-1,732	,000	-,447	-,544
Asymp. Sig. (2-tailed)	,758	,391	,270	1,000	,083	1,000	,655	,586
Exact Sig. [2*(1-tailed Sig.)]	,905 ^b	,548 ^b	,381 ^b	1,000 ^b	,167 ^b	1,000 ^b	,714 ^b	,714 ^b

a. Grouping Variable: Gruppe

b. Not corrected for ties.

There is no significant difference in regard of the relevance of leader attitudes between Austrian experts and experts from other countries.

Research Question 4: Is there a difference between experts who are above 45 years and 45 years or below in regard to the relevance of leader attitudes?

Table 6. Mann-Whitney-U-Test 4
Source: author's calculation with SPSS

Test Statistics (Mann Whitney U Test)^a

	Trust	Respect	Openness	Empathy	Motivation	Integrity	Communication	Loyalty
Mann-Whitney U	8,500	6,500	1,000	6,500	7,000	7,000	7,500	7,500
Wilcoxon W	29,500	27,500	7,000	27,500	28,000	13,000	28,500	28,500
Z	-,154	-,714	-2,208	-,687	-,577	-,577	-,447	-,408
Asymp. Sig. (2-tailed)	,877	,475	,027	,492	,564	,564	,655	,683
Exact Sig. [2*(1-tailed Sig.)]	,905 ^b	,548 ^b	,048^b	,548 ^b	,714 ^b	,714 ^b	,714 ^b	,714 ^b

a. Grouping Variable: Gruppe

b. Not corrected for ties.

For openness, the p-value is less than 0,05 thus indicating a significant result. In order to determine which group is affected, the author calculates the median for both groups of experts.

Table 7. Median 2
Source: author's calculation with SPSS

Statistics

Openness

Group 1 : Experts with <= 45 of age	N	Valid	3
		Missing	0
	Median		3,00
Group 2 : Experts with > 45 of age	N	Valid	6
		Missing	0
	Median		5,00

The results show that for experts above 45 years of age, the leader attitude openness is considered to be more relevant in leadership compared to experts who are 45 years of age or younger.

Next, the effect size (ES) needs to be considered which is calculated as follows (Corder/Foreman, 2009, p. 59):

$$ES = \frac{|z|}{\sqrt{n}} = 0,736 \tag{2}$$

Again, according to Cohen (1992), an effect size of 0,736 can be considered as large effect (Cohen, 1992, p. 157).

3. CONCLUSIONS AND SUGGESTIONS

The topic of leader traits has been part of leadership research for decades. The underlying research shows that certain leader traits (respect and openness) seem to have a higher relevance for leaders. It could be examined that for experts with ten years or less work experience, the leader trait respect is considered to be more relevant compared to experts with more than ten years of work experience. Moreover, the research results show that for experts above 45 years of age, the leader attitude openness is considered to be more relevant in leadership compared to experts who are 45 years of age or younger. Therefore, leader traits are affected by work experience and the age of leaders. Based on that, it can be argued that leader traits vary over the time and thus have a different relevance in leadership. In this respect, the author suggests to analyze other leader traits than those examined in this paper and to include situational variables to determine if leader traits change in different situations. Besides, this research results show that traits matter in leadership and that the trait approach to leadership requires further examination. In addition, the author further suggests to consider a wider range of research objects to determine if other industry sectors require other leader attitudes in leadership. Finally, research calls for a critical analysis of how leader attitudes are affected by different culture backgrounds.

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From Oldies to Goldies - Perspectives on the Baby Boomers' Approach to Applications

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Abstract

The aim of this article is to establish an understanding of the baby boomers' motivations to adopt a smartphone application with the purpose to increase the shopping centre experience by gathering all information such as opening hours and events. The consumer selects the shops of particular interests in the app and hence only receives information and offers within the consumers' field of interest. The app also have a loyalty programme embedded that grants points customers based on visiting frequency and the points gathered can be traded into a limited set of goods.

Based on this insight it is the intension to guide companies in how to design appropriate applications and communicate directly to consumers within the baby boomer group. The baby boomers have a substantial purchasing power why it would be very beneficial for companies to have a share of the monetary potential within this consumer group. To investigate this question and to fill the gap in research related to the attitudes and use of applications within the 50+ consumer segment, an explorative research design has been applied. Data have been collected through qualitative interviews within a Danish context. Knowledge on the baby boomers attitudes towards smartphone applications can help marketers to design applications that will be adopted the baby boomer segment and in this way make it easier for marketers to target their marketing initiatives directly towards the individual consumer within the wealthy baby boomer group.

Keywords: Baby boomers, consumer behaviour, application penetration, mobile marketing

1. INTRODUCTION

This paper is structured in three sections. First, the market potential of the baby boomer generation and lack of academic research targeting the segment's adaption and usage of smartphone applications is discussed. Then the paper provides a theoretical framework and overview of literature related to adaption of smartphone applications. Third, this paper discusses the results of the conducted qualitative research on acceptance of a location-based smartphone application for the baby boomer segment.

The notion used to be that the youth would change media habits as they grew older and that they would spend less time on their smart phone and spend more time on flow tv. However, the tendency is that their behavior continues throughout adulthood. Additionally, the elderly generations increasingly embrace the digital opportunities (Østebø, 2017). Smartphones have become a hub for much of what consumers do; they include a countless number of apps, covering a wide range of demands such as music, banking, shopping and social media. It is possible to spend countless of hours engaging with these apps, scrolling up and down endless feeds of text, pictures and video. To a large extend, smartphones have become a large part of a Danish consumers' everyday live across generations.

The western worlds' post war generation are named the baby boomer generation (1944 – 1964) or the slightly more narrowly defined Jones generation (1955 – 1966) (Knudsen, 2016). The baby boomer generation is, as the names implies, a large generation. In Denmark, a large proportion of the generation have equity in their houses and a good pension. This means that they as a group have a significant purchasing power. As they are the first generation that are not concerned with saving up for the next generation and since they have a considerable income that equips them with a solid demand of goods and services (Jensen & Levinsen, 2012). This paper is focusing on the age group from 50 to 70-year olds, somewhat equivalent to the Baby Boomer generation. The broad target group has been chosen, and not narrowed down, since existing research and knowledge on the topic for baby boomers is limited. In the explorative research we find it important to gain insight from a broad population related to the problem definition of the ressearch project.

The percentage of Danes over the age of 50 is 30% of the population and this is expected to increase further with 11% by 2020. The number of people over the age of 65 is in a global perspective expected to be one out of four within 20 years (Knudsen, 2016).

Many baby boomers are healthy, active and eager to learn and experience new cultures, languages and technologies (Knudsen, 2016). Today, age has become a phenomenon that increasingly are defined by lifestyle rather than the date of birth. It is important to stress, that the group is fragmented. Baby boomers age, income, wealth, lifestyle and attitudes towards technology varies, hence it is not a homogeneous group. However, this paper argues that there is an increasing percentage of the generation being open to application technology. Hence, the baby boomer generation cannot just be defined as oldies. There would be an enormous potential for companies in the tech-industry if they acknowledge the potential of the consumers within the baby boomer group.

Numerous studies have been conducted on consumers' adaptation of smartphones and applications (Hassan et al, 2014; Noh and Lee, 2016; Hamka et al., 2014). However, most research are focusing on generation Z, X, Y or Millennials. This study contributes to a more thorough understanding of the baby boomers usage and attitude towards application technology as a way for companies to increase their earnings.

For companies this means a great opportunity for reaching the large and wealthy baby boomer consumer group. To benefit from the purchasing power of the baby boomers, companies need to understand the unique characteristics of the attitude and behavior related to the use of apps within this consumer group. This is needed in order to target apps and their content towards this segment in order to design appropriate apps that appeals to their needs and buying behavior.

1.1. Impact of smartphones and applications

A significant value proposition of the application applied for the primary research in this paper, is based on a loyalty feature granting consumers points based on frequency of visits. The application monitor number of visits the location based feature is applied moreover the application are able to push relevant information to consumers smartphones based on a specific location in the mall. Thus, it is important for marketeers to understand consumers smartphone usage.

Mobile marketing has grown rapidly, due to its ability to offer highly personalized, interactive communication that is more specific to a consumer's location or consumption context than traditional advertising messages. The Mobile Marketing Association defines mobile marketing as *'a set of practices that enables organizations to communicate and engage with their audience in an interactive and relevant manner through any mobile device or network'* (Mobile Marketing Association, 2009).

The growing number of smartphones and numerous options for customizing the mobile marketing communication, has stimulated the trend in consumer marketing towards the mobile driver for communication and interaction between companies and consumers.

With technological convergence, integration of voice, texting, video, gaming, mobile internet and GPS and the increasing capacity of mobile networks, smartphones are able to provide advanced functionality to their users such as seamless communication, social networking, information, multimedia entertainment, m-commerce, personal productivity tools, and much more (Hamka, Bouwman and Kroesen, 2013). The marketshare of smartphones in Denmark is estimated to 78% in 2017, and this number equals 89% of all internet users in Denmark (Danske Medier, 2016). According to Danish Media's report from 2016, mobile ad revenue accounted for 4 percent (52% increase) of the total online ad spend in Denmark. This only includes advertising bought specifically for smartphones and not

digital advertising displayed on smartphones or tablet devices in general. This growth is expected to continue. Looking at the number of visits from devices, desktops share of visits was 35% and mobile accounted for 47% (Danish Media, 2016). In general, the numbers indicate that mobile based marketing is experiencing a significant growth, and an increasing share of advertiser's budget will be allocated to mobile marketing.

A significant reason for the growth of mobile advertisements is location-based advertising that provides a channel for advertising with unique characteristics unavailable in traditional and electronic media. It provides opportunities for to deliver advertisements, promotions and other offers that are uniquely customized to an individual's tastes, geographical location, and time of day (Hamka, Bouwman and Kroesen, 2013). Since most consumers have the mobile in close range most of the day, location-based marketing and communication offers the opportunity of more or less instant delivery and receiving of mobile advertisements. According to Deloitte (2017) Mobile consumer survey, 20% of the Scandinavian population at the age of 18 to 75 check their mobile minimum 50 times pr. day.

According to a large survey by Deloitte (2017), smartphone adoption in Denmark is continuing to rise and has reached 88%. Smartphone ownership among the baby boomer generation has been steadily growing and is today almost at the same level as younger generations. This proves that smartphones are not just for millennials and digital natives. Smartphone ownership has according to Deloitte (2017) reached 84% and 79% among the age groups 55-65 and 66-75 respectively. However, the younger generations are not surprisingly having highest smartphone usage. A comprehensive Danish survey conducted by Kantar Gallup (2017) concluded, that the Danish youth ageing between 15-29 spend two hours per day with their smartphone, exclusive telephony, the 40-49 years old spend one hour and the 50-59 years old spend 40 minutes per day (Kantar Gallup, 2017). The time spend on smartphones have been growing since the introduction of the first iPhone in 2007 and the growth are expected to continue across age groups (Kantar Gallup, 2017).

Across generations it is the same two apps being applied the most; Facebook and the mobile payment service MobilePay, but then the similarities ends (AudienceProject Insight, 2017). Where the apps messenger, Spotify and rejseplanen (travel information) are the most applied after Facebook and MobilePay for the age-group 26-35, the apps DMI vej (Weather forecast), DR nyheder (news) and Gmail are among the most popular apps for the 46 - 55 years old. Among the popular apps for Danes above the age of 56 the apps Google and Chrome are ranked in top 10 (AudienceProject Insight, 2017). The variation illustrate the different usage patents between generations. The younger generation, age 26 - 35, is into communication and entertainment; the age group 46 - 56 are more information-driven. As the only group, the +56 age group has a browser and a search engine in their top ten, indicating that substantial usage of mobile-internet behavior is browser-driven.

The data of usage is of importance for this study as, despite different usage behavior, consumption differs across generations; the baby boomers do apply their smartphones and applications on a regular basis and their usage tends to be increasing.

2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

A large number of studies on acceptance and penetration of technology and smartphones, builds on the Technology Acceptance Model (TAM) of Davis Bagozzi and Warshaw (1989). The objective of the TAM is to provide an explanation of the determinants of computer acceptance that is general, capable of explaining user behavior across a broad range of end-user computing technologies and user populations, while at the same time being both parsimonious and theoretically justified (Davis, Bagozzi & Warshaw, 1989).

Davis original model (Davis, 1986) suggest users' attitude to accepting technology can be explained by the Perceived usefulness, and Perceived ease of use, where perceived ease of use is expected to influence perceived usefulness. Later Davis and other researchers developed the model, by including behavioral intentions as a predictor for actual system use, rather than attitude toward using. In the final version of the TAM, external variable is included as an influencing factor (Venkatesh and Davis, 1996). External variables typically included user training, participation in design of the system, nature of implementation, and system characteristics.

The TAM model has been modified and revised in several studies to provide insight and explanation of penetration of mobile smartphones and smartphone applications. Nikou (2015) made an extensive review of literature related to acceptance of smartphone technology by young-elderly (age 60-75), and provided an extended version of the TAM model by including external factors like contextual, sociological, and physiological factors. User behavior varies

across generations and within a generation's population. Hamka et al. (2014) conducted a study, where consumers in baby boomer generation was identified into two categories. The first category; Application ignorant, mostly female consumers in the age group 55 - 64 years old who request a low number of URLs and make limited use of apps. The second category the researchers identified as Information seekers, wherein most were male in the age group 45 - 64 years old. These users request a high number of URL pages but have a low usage of apps.

Ertekind, Pryor and Pelton (2017) comprised several constructs based in the TAM model to provide a framework to explain behavioral intentions to use instore mapping application, by including perceived usefulness, perceived unwillingness to sacrifice security, perceived ease of use, entertainment benefits, deal proneness, market mavenism, time pressure, and the behavioral intention to use in-store mapping applications. The study highlights the significance of key consumer traits of perceived unwillingness to sacrifice security and deal proneness on the usage of in-store mapping applications. In retailing, smartphone mapping apps have been developed which allow consumers to track their locations inside stores (Ertekin, Pryor and Pelton, 2017). In store mapping applications are beneficial to both consumers and stores / shopping center. The mapping application allows consumers to follow their location in a store or a shopping center, and the application might also provide information about product offers, sales promotions and other relevant shopping information. The stores or shopping center are offered the opportunity to customize offerings to visiting consumers, or draw their attention to specific events. They also gain from the data, for example insights into movement patterns in the stores. The study of Ertekin, Pryor and Pelton (2017) on US college students, indicated that entertainment benefits, perceived usefulness and ease of use, explains the motivation for using in store mapping applications.

An important objective of instore applications for smartphones, focus on creating loyalty and relationships to the consumers. The popularity of loyalty or reward programs has increased over the last decades, (Ruzeviciute and Kamleitner, 2017), and reward systems could be a relevant tool to influence consumer perceived usefulness. According to Ruzeviciute and Kamleitner (2017), relations between the companies and their customers are important for success, and customer loyalty programs is considered a common and important tool for managing these relations, and for gaining valuable information and insight into the customers behavior.

Success of consumer loyalty program, is rooted in the aspect that is the most salient to customers, namely, the rewards they receive (Keh & Lee, 2006). Rewards from loyalty programs may be classified as monetary and nonmonetary rewards, because they reflect the primary value a reward provides to a customer, where monetary rewards refer to rewards resembled to money (Ruzeviciute and Kamleitner, 2017). Nonmonetary rewards could be linked to other benefits like for example exclusive information, extended access, special invitations. Some loyalty programs combine monetary and nonmonetary rewards.

Common arguments for monetary rewards are related to flexibility and independence, easy to understand, and providing instrumental utility for the consumers (Jin and Huang, 2014). Access to the loyalty program and status of points / reward is a significant determinant for consumers participation and engagement in loyalty programs. According to a study by Codebroker (2018), nearly two-thirds of respondents actively engage with less than half the loyalty programs to which they are members. Only 18% actively engage with all the loyalty programs to which they are members. The study also indicated that easy access to the loyalty program by a mobile phone increase attractiveness of participation, since almost 75% of consumers say that they would actively engage with loyalty programs if they could access their rewards information from their smartphones.

In literature, two demographic approaches are dominant, an approach where all age groups are researched, but where the baby boomer generation are underrepresented or an approach that focuses on younger generations. Much research that have been conducted on consumers' adaptation of smartphones and apps are focusing on demographic segments belonging to generation Z, Y, X or Millennials i.e. Hassan et al (2014) that focused on business students. Some research papers aim to embrace a population disregarding age as a demographic criteria, resulting in limited insights into the baby boomer generation. I.e. Noh and Lee (2016) who had 6.5% interviewees over the age of 50, Hamka et al (2014) who had interviewees about 45 year old in average based on a sample size of 129 and Wang et al (2013) who reached a percentage of 6.4 of their researched population between the age of 45 and 54.

Several researchers have examined how to target marketing from a behavioral point of view, i.e. Jansen (2007); Falaki et al. (2010); and Sohn and Kim (2008). Related to engaging with a smartphone, Walsh et al. (2010) has shown that younger users in the age group 15 to 24 years old, are most likely to be highly involved with their phones. Mohadis and Ali (2014) argue that financial limitations, vision impairments, and lack of interest and knowledge are the main barriers for elderly to adopt smartphones. Researchers such as Mazzoni et al (2007) combines psychographic segmentation with demographic and behavioral segmentation and conclude that lifestyle groups have different motivations and product attributes. Insights from this research indicates, that behavior reaches beyond demographic

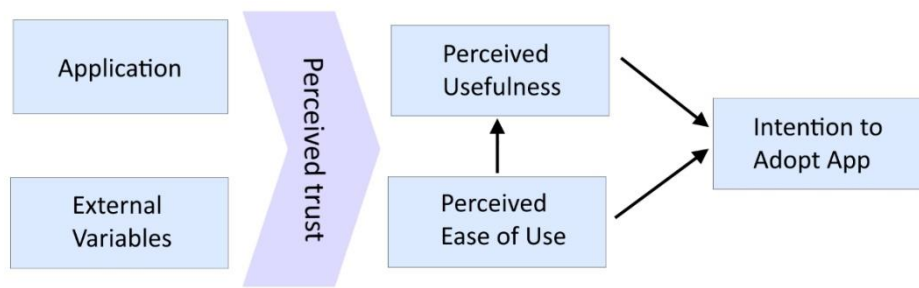
criteria's and hence it is likely that behavior may differ within a generation, like the baby boomers, solely defined by age.

3. THEORETHICAL FRAMEWORK

As highlighted in the previous section, several studies have explored the acceptance and penetration of technology, smartphones and application based on the original structure of Davis Technology Acceptance Model. Technology and the explosive development of application for smartphones, has created a need for revising and extending the model into a contemporary context (Ertekind, Pryor and Pelton, 2017).

The research conducted in this paper is based on the framework of the TAM model by Venkatesh and Davis (1996), and adapted to a contemporary context. While the initial research object of Davis was acceptance of technology systems, this articles research focus is acceptance and penetration of smartphone applications. The explosive growth and diversification of applications, makes it relevant to also include for example type, purpose, technology, of the application. External variable could be demographics, education and social setting.

Figure 1: Conceptual model



The initial research indicated that trust of privacy and data handling plays an important role for the acceptance of applications, and trust in the application provider could be a gate in the process. Lack of trust and insecurity related to private data becomes a stage-gate that block further evaluation of perceived usefulness and perceived ease of use. The revised version of the TAM model, illustrated in figure 1, will be applied as the conceptual model in this research paper.

4. METHODOLOGY

The qualitative study draws on data from a two-step in-depth interview process. The objective has been to gain an understanding of the baby boomer generation perceptions and attitudes related to downloading apps on their smartphone. The study particularly addresses factors in the baby boomers' decision process that prevents them from downloading an app. The baby boomer generations' behaviour, related to smartphone applications, is an interesting research area due to several reasons. First, previous studies on smartphone application behaviour has focused on young consumers, for example Noh and Lee (2016) why there is a lack of insight into app consumers above the age of 50. Second, baby boomer generation is a large segment in the western countries, with a high purchasing power that makes them an interesting consumer group for retailers. Third, penetration of smartphones among the baby boomer generation is significant and increasing, and therefore a potential for application-based marketing towards the segment.

The research is based on a qualitative approach to consumer data and provides insight into the attitudes and behaviour for downloading apps. This insight is valuable in designing apps with a broader appeal and acceptance among the baby boomer generation. Existing literature related to the baby boomer generations' download and use of apps is limited, and a qualitative research approach provides an opportunity to explore the research topic and understand the key determinants.

In the first step of the research process, 15 adult interviewees were recruited in a shopping street for an in-depth interview based on an estimated age according to target group. The interviews duration was approximately five minutes each. The purpose of the interviews was to establish an initial insight into attitudes and behavior that influence consumers download and use of smartphone apps that could give input to the theoretical framework for the main research. The number of interviewees was considered appropriate in the initial phase to cover the relevant factors.

The open-ended questions in the interview addressed the interviewees behaviour and preferences for smartphone apps, sources of information and inspiration, and also factors that determine if an app is accepted and downloaded or rejected. The interviews were conducted in December 2017.

The second step in the research process was conducted as in-depth interviews in a major shopping centre in January 2018. The interviewees were selected based on estimated age between 50 and 70 years. In-depth interviews was selected to gain a deeper understanding of the topic, and also give the opportunity to show relevant aspects of the app in the research.

Reasons for conducting the interviews in a shopping centre was related to the cold weather in the winter season, making the interviews more comfortable for the interviewees in-door. The shopping centre consists of a large number of stores within different product categories, and the shopping centre visitors then represent a wide range of consumers from different social classes.

A smartphone app was used as an example to make it easier for the interviewees to relate to the topic of the interviews. Visuals of screens dumps from the app and the functionality, was showed as a supplement to the questions with the purpose of giving the interviewees a better understanding of the questions, and to help them express their attitudes and behaviour towards the use of apps. During the interviews the interviewees was exposed to selected screenshots from the app related to for example log-in, notifications, bonus system. The interview structure allowed the interviewees to respond to a range of aspects of the app, and gaining an insight into factors that trigger acceptance or rejection of the app.

Emplate, a Danish start-up company, have developed the app applied in this research. The app is developed for shopping centres, and the main goal is to enhance the shopping experience and increase frequency of shopping centre visits. When the consumers download the app, their visits to the shopping centre is registered by Bluetooth, and a bonus system based on frequency of visits, rewards the consumer. Users of the app are also provided with general information about activities in the shopping centre by notifications on their smartphone, in addition to offers and advertisements from separate stores in the shopping centre. In the settings, users of the app can select the stores of interest in the shopping centre that they accept offers and notifications from. Sensors in the shopping centre register the location of the users (the smartphone), and the app focus on notifications to users that are located close the store. The interview guide developed to reveal the baby boomer's perception on these functionalities. The app from Emplate was chosen as the case for the research, due to the apps multiple elements. Most of the elements applied in the Emplate app are implemented in many other type of apps as well. Hence, the findings from this research can be transferred to other type of apps e.g. having Facebook log-in.

17 interviewees from the baby boomer generation was interviewed in the second step of the data sample process. The duration of the interviews was approximately 15 minutes and the interviewees were selected in the shopping centre based on their age, reflecting the baby boomer generation.

5. RESULTS AND DISCUSSION

The findings from the conducted research is structured according to the conceptual model, illustrated in figure 1. Hence, the following section is in three parts; perceived trust, perceived usefulness and perceived ease of use. The final phase, intention to adopt app, will be addressed in the conclusion.

5.1. *Perceived trust*

One of the most significant barriers for the baby boomer group in regards of adopting the application, was the concern of private data and information. There seems to be a significant sepsis towards the personal data provided to the app, and not at least the handling of data afterwards. The interviews also revealed that the interviewees in general find it very difficult to get an overview of the privacy issues like legal contracts, third party information and type of information. Additionally, the majority of the interviewees admitted that they have little insight into the type of data they give away, and the providers intentions behind the data collection, illustrated in statements like:

“I am reluctant to give away information about myself, because it’s impossible to know what is happening to the information, for example if they are sold to a third part” (man, 54)

and

“I do not want other people to know everything about myself” (man 68)

The findings correlate with a retail mapping app study (Ertekin, Pryor and Pelton, 2017) that highlights the significance of key consumer traits of perceived unwillingness to sacrifice security and deal proneness on the usage of in-store mapping applications. The reluctance to even consider adopting an application due to lack of knowledge sub-consequently trust, seems to be a common barrier for the baby boomers.

The interviewees were asked if they read terms and conditions of for data collection. The interviewees responded very similar, that they do not read the terms and conditions before downloading an app. In general, there was three reasons for not reading the legal text: 1) the text is difficult to understand due to technical or legal terminology, 2) the text is far too long and it takes long time to read it, and 3) there is nothing you can do about it. If you do not accept the terms, you cannot download the app. Below is an example of the answers:

“It’s really annoying that you have to accept the terms before downloading the app, since there is nothing you can do about it anyway” (man, 52)

Furthermore, the interviewees were concerned about data usage and selling or forwarding data to third party. Several interviewees mentioned a feeling of being controlled and giving away too much information about them self, like the one man said:

“I am against it (giving away data) - there are many apps I found useful, but did not download because I could not accept the terms of data” (man, 68)

The statement tells that the baby boomers have rejected to download apps even though they find them attractive, because of privacy concerns.

In connection with the interview, the interviewees were told that the researched in store mapping app only needed private data in terms of age and gender, and that the app only would track data inside a given? shopping center. Like the examples below show, most interviewees were positively surprised that the app did not register a broader range of data, and that the insight would make them more willing to accept the privacy terms related to in store mapping apps:

“I have no problems with that, are more concerned that other people track me and what I am doing” (women, 61)

And:

“It’s fine and reasonable, since they do need to know who I am to give me bonus points for visits” (man, 59)

Based on the interviews there is reason to believe that consumers in general exaggerate the range and amount for information about themselves when using apps, and that they perceive the information to be more personal and related directly to individuals. Consumers tend to perceive privacy issues as difficult to understand and, and several interviewees mentioned that they believe that the app providers deliberately articulate and design the terms and conditions with the purpose of making it hard for consumers overview and understand. The interviews also indicated that consumer do not trust the handling of information and data gained from consumers, particularly data sold to third

parties. The baby boomer group find privacy issues difficult to understand, and hence trust becomes an important factor.

In general, the baby boomers told that they exaggerate the range and amount of personal information when using apps as they perceive privacy issues confidential and difficult to understand. Additionally, many of the interviewees believe that the app providers deliberately articulate and design the terms and conditions with the purpose of making it hard for consumers overview and understand, and that they do. For this reason, the interviewees do not trust the handling of information and data gained from them as consumers. Particularly they are concerned with data that could be sold to third parties. Since the interviewees find the privacy issues difficult to understand, trust becomes an important factor. This is apparent from statements like:

I only download apps from companies that I know and trust, like for instance DR (Danish public broadcasting company) (man, 52)

and

“If I have not heard of the provider of the app, I would never download the app” (women, 63)

Something that drives trust is brands and corporate names which reduce the uncertainty of privacy issues. This make the interviewees more willing to downloading apps. However, like an interviewee said, a known brand or name behind the app does not mean that consumer uncertainty is completely eliminated:

“I trust a company with a good reputation, but I do not trust what happens to my data afterwards” (man, 60)

Several interviewees expressed higher trust in Danish app providers, with statements like the one below:

“I stick to Danish apps, and I do all my shopping in Denmark or from Danish web sites” (women, 70)

Proximity to a brand and companies reduced the perceived risk related to an in store mapping app. The fact that the research app was provided by a well know shopping center in the local area, played an important role in the interviewee's concern about downloading the in-store mapping app, illustrated through sentences like:

“I trust that they (the shopping center) handle my data as they should, because they are dependent on a positive reputation on the community” (man, 54)

and

“I have shopped at the center for many years, and have no reason to not trust them” (women, 70)

Additionally, recommendations form family and friends are important sources of inspiration for new apps that reduce perceived risk and uncertainty related to downloading an app:

“Most of my apps on my phone is recommended by people I know – if they have a positive experience with the app, I am more confident” (women, 62)

Some consumers accept that they cannot overview the issue of privacy, and still chose to download app, as one man said:

“...if I cannot [overview issues of privacy] I would not have any apps on my smartphone” (man, 60)

Trust issues seem to be a significant barrier for downloading apps, and consumers way to navigate in the overload of terms, conditions and unfamiliar terminology, is related to brands and names of companies or organizations they know and trust. Family and friend is also an important a relevant factor that lower that parade and reduce barriers.

5.2. Perceived usefulness

Based on the interviews, a significant motivation for the baby boomer generation to adopt apps is the benefits they can gain by downloading and applying the app. The benefits desired are to a large extent related to the functionalities that the app has and how the app add value in terms of for example providing information or offering special offers. Thus, the most popular apps are within the fields of news, banking and communication as these add easy access, information and functionality to the baby boomers (Kultur ministeriet, 2018).

As a group, the baby boomers are relatively skeptical when it comes to technology, but not repellent. However, if the Baby boomers perceive benefits that makes thing easier for them through a technology, they are motivated to adopt it. The Facebook app is an example of this. Statistics from 2017 states that 94% of the Danish 25 to 34-year-olds have a facefook account, but the baby boomers are not far behind. In fact, 63% of the 55 to 64-year-olds had a facebook account in 2017 (Kultur ministeriet, 2018). Social media may seem as a technology appealing to the youth, and they were the first movers to adopt Facebook in a large scale. However, as the baby boomers discovered that they could communicate with their children and grandchildren though the app, the hesitations the group may have had were conquered.

In general, the baby boomers are skeptical towards offerings that sounds too good to be true. As experienced consumers, they know that retailers do not offer anything for the benefits of the consumers. As one of the informants told:

“Loyalty points (collected through the in-store mapping app) have no effect. It is not the points that make me loyal, not even if I get a discount. I do not want to feel tied to a shop.” (Woman, 62)

When it comes to technology, the baby boomers as a group question the ease of use, as this statement illustrates

“ ... it is probably difficult to turn those points into real goods” (Man, 56)

Results from a multi study approach by Ruzeviciute and Kamleitner (2017), showed that monetary rewards from loyalty programs are most attractive for consumers. A reason why interviewees did not perceive the point reward program as attractive, could be related to lack of monetary significance, or lack of understanding. The point system does not specifically explain the monetary value of the points earned, and therefore makes it difficult for the interviewees to evaluate the monetary value of the points. Furinto, Pawitra and Balqiah, (2009) emphasize the importance of rewards being easy to decode and evaluate for the consumers, and the results indicate that the monetary reward is not specifically expressed, and thereby difficult to evaluate the monetary significance of the points.

Consumers that have downloaded the research app, achieve loyalty points based on their placements and movements in the shopping center, and not obtained through purchase. In addition to their movements in the shopping center, the consumers must have a Bluetooth-function switched on their smartphone. This includes an allowance, given through the app, to track their movements throughout Bluetooth-signal receivers within the shopping center.

The tracking functionality did not seem to be the deterrent factor for the app's attractiveness. While some rejects the concept of a smartphone loyalty-function due to privacy issues, other interviewees did simply not have the option to switch Bluetooth on their phone. In fact, many were positive to the concept (informanter).

“I like the idea that you just have to be there to get points – it is very fair (Man, 59)

More straight forward functionalities, such as a calendar function were the consumers can read about events within the shopping center and receive information about opening hours, was perceived positive. The concerns raised was mostly about the number of notifications as they are afraid of getting overwhelmed with spam mails, like this statement shows:

“... I guess some notifications is ok, but it can be too much really fast. I do not want to hear about all sorts of events now and again” (Man, 59)

The insight gained is that the baby boomers as a group, do not reject using an in-store mapping app, but they do have concerns that needs to be dealt with. For example the benefits elements of can easily be turned into an irritation element that potentially can lead to an overall rejection of installing an using an app. A Key element is notifications. Messages pushed to the consumer through an app seems to be an important indicator of Hence messages need to be customized to the individual consumer's need and buying behaviour. The demand for customization is also an important factor for the various functionalities like Most of the interviewees in the research want to be able to customize the app to their own needs. An interviewee for instance state:

“I think it is good that I can chose the kind of messages I want, because I for instance do not want offers from men's shops” (Woman, 50)

Despite concerns and hesitations, the baby boomers do not reject using instore mapping apps. However, two indicators stand out. First, the functionalities need to be focused on customized benefits and secondly, the group is sensitive towards untailored notifications like.

5.3. Perceived ease of use

Interviewees linked perceived ease of use primarily to login, customization, and reward system of the application.

“When you have your whole life at Facebook, it's a good idea that you can log in through Facebook. (women, 50)

“I do not trust Facebook, so I like that you can log in mail”

The functionality that enables you to choose between different log in alternatives, was seen as an important positive factor. Also that feature that you can customize the application by selecting specific stores in the shopping center that you want to receive information and offers from, was considered positively. The customisation of reduce complexity in use, since the user only receive information and offers from stores they have accepted. The application awards you bonus point every day you enter the shopper center, and the bonus points can then give discounts and price reduction on products and services in the shopping center. Several interviewees mentioned that they found it beneficial that the registration of bonus points when visiting the shopping center happened automatically, and the user do not have to take any initiatives to get the bonus points.

“it's a good idea that I do not have to take any actions to get the points, they comes to me without doing anything besides visiting the shopping center”

The interviewees did not see the physical application, or was able to test the functionality by them self, but reacted on explanation and illustrations of the functionality. A real life test of the application could have generated more insight and comments to the perceived ease of use.

6. LIMITATIONS AND FUTURE RESEARCH

The insights provided in this research paper, are based on a qualitative research methodology. The methodology has provided valuable in-depth knowledge concerning motivations and constrains within the baby boomer generation to adopt an app. However, the qualitative methodology implies a relative limited number of interviewees and hence increase the risk of bias in term of reliability. Future research could examine the baby boomer's perspectives to

applications applying a quantitative research method. Such research would qualify the findings in this paper due to methodology triangulation.

The scope of this research is solely on the baby boomer generation and app technology and hence do not focus on integration between online channels and physical stores. This research has a rather narrow focus. First; the technology applied in the research is a single application developed by Emplate, a small start-up company situated in Aarhus, Denmark. Secondly, the interview sample were conducted in Kolding Storcenter, situated in the southern part of Denmark. To heighten the validity further research could be conducted, applying various types of applications. It could also be beneficial to have an interview data sample with a geographical spread. This could increase reliability of this research as interviewees in the city of Kolding may have other perspectives as interviewees in i.e. Copenhagen. In this regard, international research projects could lead to insights on consumers' perceptions across nations.

7. CONCLUSION

Marketing and promotions based on smartphones and app's is continuously growing market, and provides a still unrealized potential for customized marketing and relations with their target groups. Both penetration, usage, performance and functionality offer new and better ways of utilizing the potential of smartphone based marketing. Review of existing literature has revealed a need for research and insight into penetration and usage smartphone application for the Baby boomer generation. The revised TAM conceptual framework applied in this paper has identified three key aspects influencing the baby boomer generations' intention to adopt in-store applications. The three key aspects are trust, perceived usefulness and perceived ease of use.

The study also indicates that trust issues are a barrier for the baby boomer generation. This paper argues, that trust issues serves as a stage-gate in the decision process. If the consumer does not trust the application provider, the two other aspects; perceived usefulness and perceived ease of use, will not be considered.

One of the concerns regarding trust, is often based on very little knowledge and insight into data and privacy issues. Providers of app's targeting the baby boomer generation, has to deal with these issues to gain acceptance and buy in. The concerns of privacy issues have to be addressed, and this research indicates that open and informative communication about storing and handling consumers data storing, is the way forward to gain trust and acceptance for new smartphone applications. The point that baby boomer generation looks for utility and benefits in an app, should lead to increased focus on communication upfront the practical benefits the app's offers the consumers.

The results of this study have pointed at several issues and challenges regarding the baby boomer generations intent to download and adopt smartphone applications. Contrary to younger consumers that seek entertainment and excitement in new apps, the baby boomer generation look for practical benefits and functionality when they consider downloading new applications. This concerns perceived usefulness, the benefits relevant for baby boomer generation is often related to functionality that provides a better overview or makes tasks easier.

Smartphone app's have become an important part of customer loyalty programs, and this study underlines the importance of clearly communicating the value (monetary or non-monetary) of the reward that consumers gain by loyalty to a brand or company. If the reward that the consumers can gain is complicated or difficult to assess by value, consumers motivation for engaging into a loyal relation with the company, is expected to be low or absent.

Regarding perceived ease of use, this paper identifies customisation as a factor of importance. The baby boomer generation does not want information or functionalities not tailored to their needs. An easy access to content matching their demand is crucial in the pursuit of baby boomers.

The overall conclusion of this paper is that the baby boomer generation as a group is very diversified, but certainly have potential for developers of in-store applications. Many members of the generation have a good purchasing power and are open to new technologies. The groups potential can be met if their concerns are addressed in the application design and communication.

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Job Satisfaction in Banking

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Abstract

Introduction: Job satisfaction is defined as the spiritual pleasure of the employee in return for doing his job. Employees with high job satisfaction are expected to have high job success. Accordingly, the financial performance of the workplace will increase, and it may be possible for employees to receive better wages. **Purpose:** The purpose of this study is to measure the job satisfaction of bank employees. **Research Method:** The random sampling method was used to obtain the data used to measure job satisfaction. The research was carried out in November-December 2019 period with 233 people using the Paper-and-Pencil Interviewing (PAPI) method. **Findings:** Research findings show that bank employees generally have high job satisfaction levels. The biggest disadvantage in the study is that employees think that wages in the workplace are not fairly distributed among employees. **Implications:** Findings show that employees have a good job satisfaction. This shows that the banking sector is a suitable job for students who have just graduated from the university and is one of the top options in job preferences.

Keywords: Banking, Job Satisfaction

1. INTRODUCTION

The banking system constitutes the largest component of the financial system in Turkey. As of the end of 2019, 53 banks operate in the Turkish Banking system, excluding the Central Bank. The number of bank employees, which was 217,759 in 2015, decreased by 5.9% until the end of 2019 year. By the effect of increasing technology use, the number of employees in traditional banks is constantly decreasing. When examined 2016 year, the number of staff working in Participation Banks decreased strikingly in this year. However, it is seen that this number started to increase in the following years. The significant decrease in the number of employees in the banking system in 2016 is due to some political and economic events that occurred that year.

Table 1. Number of Employees in Turkish Banking System by Years

	2015	2016	2017	2018	2019
Conventional Banks	201.205	196.699	193.504	192.313	188.837
Participation Banks	16.554	14.492	14.874	15.654	16.040
Total	217.759	211.191	208.378	207.967	204.877

Source: The Banks Association of Turkey (BAT) (2019), Participation Banks Association of Turkey (PBAT), (2019)

According to data of The Banks Association of Turkey (BAT) (2019) and Participation Banks Association of Turkey (PBAT) (2019), the rate of female employees in the banking sector is 51 percent and the ratio of male employees is 49 percent. As of the end of 2019, 78 percent of the employees are graduates of higher education institutions and 8 percent are those who have completed masters and doctorates. This rate is 13 percent for secondary education.

There is a downward trend in the number of personnel employed in the Turkish banking system. Depending on this development, the emotional states of the employees become important. Turkey's population continues to increase continuously in 2019. Increasing population causes banks to gain more customers. In addition to the increasing number of customers, the decrease in the number of employees causes a significant increase in the workload of employees in banks. These and similar factors can increase the work stress of the employees and reduce their motivation. As a result, employees' productivity is likely to drop.

Job satisfaction is the degree of enjoying work (Spector, 1996). Job satisfaction is about positive and negative feelings and attitudes about work and it depends on many business factors. Individual feelings can also affect job satisfaction. High motivation and job demands / expectations also affect attitudes towards work. For some employees, job satisfaction is determined and stationary, independent of the characteristics of the job. Changes in status, wages, working conditions and targets affect job satisfaction of these people, though slightly (Yelboğa, 2007). On the other hand, employees' job satisfaction is an important factor for the organization's success and continuity (Meena & Dangayach, 2012).

2. LITERATURE REVIEW

The issue of job satisfaction in banking has been extensively addressed in the international literature (Thakur, 2007; Sowmya & Panchanatham, 2011; Meena & Dangayach, 2012). As a result of the research conducted by Thakur (2007) on the job satisfaction of the public and private banks, it was observed that the job satisfaction of the public and private bank employees was equal. Sowmya & Panchanatham (2011) determined that job satisfaction depends on the manager's and colleagues' behavior at work, wages and promotion opportunities, employee optimism, and working conditions. According to the Meena & Dangayach (2012) study, the job satisfaction levels of private and public banks differ from each other. An employee satisfied with the job contributes positively to the efficiency and performance of the job. Therefore, businesses try to increase their job satisfaction and meet their needs and increase employee loyalty (Meena & Dangayach, 2012). In the research conducted by Örucü et al (2006), it was examined the factors affecting job satisfaction on 104 personnel working in banks in Balıkesir and it was determined that employees especially have a strong emphasis that the wage received is not the equivalent of the work done. In the study, it was determined that the employees were in a moderate level of satisfaction in terms of factors such as job-staff cohesion, friendship relations, satisfaction with management practices, promotion expectations, and the physical environment of the workplace. Gökdeniz & Merdan (2016) determined that male employees have higher job satisfaction than women in their study on bank employees. On the other hand, job satisfaction also affects the professional preferences of the employees.

Although the level of job satisfaction in banking has been adequately researched in the international literature, it can be said that academic studies on the Turkish banking system are limited. On the other hand, the Turkish banking system shows a much faster change compared to other countries. For this reason, the study will both enrich the Turkish literature and give the opportunity to evaluate the effect of changing conditions on the job satisfaction of bank employees.

3. AIM AND METHODOLOGY

The aim of this study is to measure the level of job satisfaction of Bank employees. For this reason, the sample was composed of employees at 43 bank branches in the city of Uşak (Turkey). It is estimated that there are about 350 employees in banks in Uşak. Questionnaire method and random sampling were used in the study. The survey was conducted with 233 bank employees. The survey application was carried out with Paper-And-Pencil Interviewing (PAPI). The questionnaire form of the study was created with the help of "Turkish Job Satisfaction Scale", whose validity and reliability analysis was performed by Yelboğa (2009). The survey was carried out in November-December 2019.

4. FINDINGS

There are 9 separate subscales in the study. These; (i) Pay, (ii) Promotion, (iii) Supervision, (iv) Fringe benefits, (v) Contingent Rewards, (vi) Operating Procedures, (vii) Coworkers, (viii) Nature of Work and (ix) Communication. Each expression in these scales and the distribution of employees' responses are shown in Table 2.

Statements 1, 10, 19 and 28 in the scale are related to the share remuneration of bank employees at work. The average rate of these four questions being affirmative on average is approximately 45%. This value shows that bank employees are not satisfied enough with their wages. 57% of employees think that they do not receive fair wages. The other scale is Promotion opportunities (Statements 2, 11, 20 and 33). The rate of those who think positively in this scale is 61.75% on average. Bank employees think that their chances of rising in their workplaces are high (67.4%). However, the rate of those who agree that the opportunity for promotion in the bank is better than other workplaces is slightly high (52.3%). Satisfaction rate for managers (Immediate Supervisor) (Statements 3, 12, 21, 30) is 76.53%. Among the statements in this category, the highest participation rate belong to “the business competencies of the managers” by the rate of 86.3%.

Table 2. Job Satisfaction Statements

Statement Number	Statements	I- %	II- %	III- %	IV- %	V- %	VI- %
1	I think that I get fair wages for my work.	22,3	24,0	11,2	18,5	18,0	6,0
2	I have a very low chance of rising in my job.	15,5	35,6	16,3	15,9	11,6	5,2
3	I think my manager is sufficient in his/her job.	2,6	6,4	4,7	16,3	46,4	23,6
4	I am not satisfied with the rights and allowances given to me in return for my job.	9,9	25,3	25,3	21,9	15,0	9,4
5	I am appreciated when I do my job well.	6,9	9,0	12,9	25,8	36,5	9,0
6	The rules at my workplace make it difficult for me to do the job properly.	9,0	33,9	15,0	21,9	10,3	4,7
7	I love the people I work with.	2,6	2,1	4,3	17,6	45,9	27,5
8	Sometimes I think my job is pointless.	16,7	29,2	12,9	15,5	18,5	7,3
9	I think the communication is good at this bank.	2,6	5,6	9,0	20,6	42,1	20,2
10	Wage increases are low in my workplace.	3,9	18,5	13,3	21,9	25,3	17,2
11	Those who do their job well are given a chance to rise.	11,2	17,2	10,3	26,6	25,8	9,0
12	My manager is not fair to me.	30,9	36,5	5,6	18,5	6,0	2,6
13	Rights and allowances at my workplace are better than other workplaces.	7,7	9,9	11,6	30,5	30,0	10,3
14	I am not satisfied with the work I do.	20,6	30,5	12,9	21,0	9,0	6,0
15	My efforts to do a good job are rarely blocked by formalities.	10,7	19,3	21,9	26,2	17,2	4,7
16	I have to work harder because the people I work with are inadequate.	17,2	22,7	14,6	20,6	15,9	9,0
17	I like to work I do at my workplace.	6,4	12,4	10,7	29,2	27,5	13,7
18	The goals of this workplace are not clear.	16,3	28,8	18,0	18,5	12,9	5,6
19	I do not think I am appreciated for the fee given me.	12,9	19,3	16,3	21,0	18,5	12,0
20	People at this workplace are promoting fast like other places.	12,0	20,6	15,0	27,0	19,3	6,0
21	My manager doesn't care about feelings of his employees.	21,5	32,6	9,9	17,2	12,4	6,4
22	The rights and allowances we receive at the workplace are fair.	10,7	16,7	10,7	26,2	27,5	8,2
23	Those who work at this workplace are little rewarded.	10,7	12,9	15,5	28,8	22,3	9,9
24	I have a lot of work to do at my workplace.	3,9	7,3	4,7	22,3	34,8	27,0
25	I love my colleagues.	5,2	5,2	12,0	19,7	38,2	19,7
26	I often feel I don't know what's going on in this workplace.	21,0	30,0	14,6	20,2	10,3	3,9
27	I am proud of my work.	3,4	12,4	9,4	24,9	32,6	17,2
28	I am satisfied with the increase in my fee.	12,0	17,2	16,3	27,0	19,3	8,2
29	There are rights and benefits that are not given to us.	16,3	22,3	11,2	22,3	17,2	10,7
30	I love my manager.	3,9	6,9	6,4	20,6	36,9	25,3
31	I have to deal with a lot of correspondence and similar work at this workplace.	1,7	9,9	9,9	28,8	30,5	19,3
32	I don't think my efforts have been fully rewarded.	8,2	10,7	18,5	24,9	24,5	13,3
33	I think I have enough chance to rise.	8,2	10,8	15,1	20,7	29,7	15,5
34	There is a lot of strife and quarrel in my workplace.	29,3	28,9	11,6	14,7	8,6	6,9
35	I love my job.	6,5	8,6	9,1	20,7	36,6	18,5
36	The things I have to do are not clear enough.	19,0	31,9	16,8	23,3	5,2	3,9

I-Definitely Disagree, II-Disagree, III-Partially Disagree, IV- Partially Agree, V-Agree, VI-Totally Agree

Fringe benefits are examined with numbered statements 4, 13, 22 and 29. The affirmative rate of this scale was calculated as 58.9%. The most positive statement is “The rights and allowances granted at the bank are better than other enterprises” (70.8%). Contingent Rewards (Statements 5, 14, 23 and 32) reflect reward-like earnings from work that will create the right to work overtime or additional premiums. The average rate of this scale is 52.98%. Employees think that they are appreciated when they do good work (71.3%) and they are satisfied with their work (64%). However, bank employees think that they are very little rewarded (61%) and efforts are not rewarded enough (62.7%). Accordingly, bank administrations should review the rules for rewarding employees. Operating Procedures are measured with statements 6, 15, 24 and 31. The average score for general operating procedures in the bank is calculated as 63.23%. The score of the statement “The rules in my workplace makes it difficult for me to do the job properly” in this scale is 42.1% and the score of “My efforts to do a good job is rarely blocked by formalities” is 48.1%. Accordingly, procedures are often not perceived as a major obstacle to doing things well. The other two statements within this scale “I have a lot of work to do in the workplace” is rated as 84.1% and “I have to deal with a lot of correspondence and similar work in this workplace.” is rated as 78.6%. Accordingly, employees think that the workload in bank branches is quite high.

The harmony among the employees of the bank (Coworkers) was also investigated with the statements 7, 16, 25 and 34. The average score of this scale was found to be 71.85%. The most positive statement in this group is “I love the people I work with.” within 91%. As a result, these scores show that employees at bank branches generally have a positive attitude towards each other and that they love them. This result adds value to the bank in order to provide an efficient business environment. The Business Environment scale consists of 8, 17, 27 and 35 numbered statements. Average score of this scale is 69.93%. This value means that the business environment is welcomed by the employees and they like the work they do. The last scale is the Communication environment in the workplace. This scale consists of 9, 18, 26 and 36th statements. The average score is 69.8% of this scale. Accordingly, it is possible to say that general communication within the branches is perceived as healthy.

5. CONCLUSION

This study was carried out to measure the job satisfaction of employees in bank branches. The results obtained in the survey conducted with 233 bank employees in the study show that the satisfaction of the employees is good. This result contributes to better service of branches and all banks in general. Relationship between supervisors and other employees and communication in the business environment are welcomed by the employees. But, according to the findings of the study, it is understood that the employees find the work intensity too much and the wages they receive accordingly are below expectations.

The high level of job satisfaction of employees in banks will increase loyalty to the bank, while low job satisfaction will lead to inefficient work or other job searches of employees. This will cause the turnover rate to rise. Increasing turnover rate of employees will increase the workload and costs of banks' human resources departments. The selection of new staff to employ in bank branches, and compliance costs will arise. In addition, the dismissal of existing employees will reveal the deterioration in the quality of banking services.

This study was conducted across a small city in Turkey. It is possible that the features of the city have an impact on the positive results obtained. For this reason, it is possible to repeat this study in a way that will also cover larger cities. It is possible to investigate the factors affecting job satisfaction in the further studies.

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The Cointegration Relationship between Bitcoin Prices and Major World Stock Indices

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Abstract

Introduction: Bitcoin is the newest and most interesting investment tool that has emerged in financial markets in recent years. On the one hand, it is quite attractive to investors and it is discussed by regulatory authorities. **Purpose:** The study aim is to reveal the interaction of Bitcoin, which is an interesting financial tool, with the developed stock markets in the world. It is examined the cointegration relationship between Bitcoin and stock market indices a few studies in the literature. Therefore, the study is expected to contribute to the literature. **Research Method:** The cointegration relationship between stock markets and bitcoin was investigated by ARDL bound test. **Findings** In the study, both short and long term cointegration relation is found between bitcoin and Dow Jones, Nikkei 225 and FTSE indices.

Keywords: Bitcoin, Stock Exchanges, ARDL Bounds test, Capital markets

I. INTRODUCTION

In late 2008, a pseudonymous hacker calling himself Satoshi Nakamoto was published describing the concept of decentralized open-source crypto money. [1]The bitcoin network called blockchain was created in 2009 money. Until 2009, there have been efforts to create decentralized cryptocurrencies, but these efforts have not been successful. After 2009, it has begun to discuss whether Bitcoin, a blockchain-based cryptocurrency in global markets, can replace existing currencies. At the same time, some investors have started to evaluate cryptocurrencies as financial instruments such as stocks and bonds. Afterward, Bitstamp, BTC-e and Bitfinex exchanges, as well as cryptocurrency trading volumes increased. [2] Rapid rises in Bitcoin caused the emergence of other cryptocurrencies. According to Coin Market Cap, which provides the most comprehensive information about cryptocurrencies, transactions are made 24/7 on online crypto exchanges. And the trading volume in these markets is more than \$ 280 billion.

Crypto currencies are defined as a phenomenon discussed by media, financial and government institutions. [3] The rapid growth in the crypto money markets in recent years has attracted the attention of academics and financial experts. Since Bitcoin was first proposed by Nakamoto, there have been numerous studies approaching the issue from different perspectives. The first studies on Bitcoin are in the fields of computer, cryptography and law. These studies generally focused on whether Bitcoin can be if counted as currency, its security and technical features. In academic literature, it is an idea that Bitcoin is a speculative asset due to its high volatility and extreme returns in the short periods. See [4]; [5]; [6]; [3]; [7]; [8];[9]; [10].

Kristoufek [5] analyzed the sources of volatility in Bitcoin. He observed that the Chinese market is the main driving force of Bitcoin and that gold has a small and uncertain effect. It has revealed that the most important effect on bitcoin's volatility is the speculative behavior of users. Also, the study concluded that the investor's attention-to-bitcoin price exploration relationship was bidirectional. The bidirectional relationship has also been

tested by Urquhart and investor attention showed that the relationship between bitcoin price discovery is not bilateral. [11]. Urquhart is the first study to investigate the effectiveness of bitcoin prices. Using six different tests, it concluded that bitcoin prices are ineffective.[12] Studies are concluding that Bitcoin markets are effective.[13]; [14]. According to Liu and Tsyvinski, he argues that investor's attention is strongly predicting bitcoin returns and that the effect of investor's attention on price is one of the most important and unique features of crypto markets [15].

There are studies investigating the relationship between Bitcoin markets and other markets indices.[16]; [17];[18]. Koçoğlu et al. analyzed the effectiveness, liquidity and volatility of 8 different exchanges in which Bitcoin traded. According to the research results, Bitfinex (USD), Bitstamp (USD), Btc (USD) Bitcoin exchanges are cointegrated, and Okcoin (CNY) exchange is not cointegrated with these three exchanges.[16]. In the Dirioz and Cevik study, it was revealed that there is a cointegration relationship between Bitcoin prices and leading US and Chinese Stock Exchange indices. As a result of this relationship, it is concluded that Bitcoin prices may affect the long term investment decisions of investors in these exchanges. There is no relationship between London FTSE100 and Tokyo NIKKEI 225 stock indices and Istanbul BİST100 [17]. Alanaa et al. (2020) It is concluded that there is no cointegration among cryptocurrencies according to the fractal cointegration technique. At the same time, there was no cointegration relationship between cryptocurrencies and the S&P 500 and VIX index, which represent stock market indices [18]. This study aims to contribute to the limited literature on this issue by testing the relationship between the cryptocurrency market and the world's leading indices.

II. DATA METHODOLOGY AND FINDINGS

Cryptocurrencies are one of the most remarkable issues in financial markets in recent years. The interaction of this new investment instrument with stock markets is the subject of this study. For this purpose, Bitcoin, which accounts for a large part of the volume of transactions in the cryptocurrency market, was used. Bitcoin data is taken from Bitfinex data, where 60% of Bitcoin transactions occur. Stock market indices, which are among the most valuable indices of the world and thought to have interactions with Bitcoin, are also included in the study. Dow Jones 30, Nasdaq 100, Nikkei 225, S&P 500 and FTSE 100 are used stock market indices in the study. For this study, the series consisting of daily data for the period February 2, 2012. and December 21, 2019, were used. Data on the study was obtained from the www.investing.com site.

Logarithmic forms of variables were used in the study. The variable definitions used in the study are follow as;

LNBITCOIN: Bitcoin in dollars.

LNDOW30: The closing value of Dow Jones 30 index,

LNNIK: Nikkei 225 index closing value

LNSP: S&P 500 index closing value

LNFTSE: The closing value of the FTSE 100 index.

Cointegration tests are used to analyze the long-term relationships of variables with each other. Stability levels of the series are important in determining the cointegration test to be used. Therefore, it is necessary to determine the stationarity levels of the time series to be used in the study. Augmented Dickey and Fuller testing the stability level of application serial (ADF), Philips Perron (PP) was used. ADF and PP unit root test results for the series are given in table 1.

In Table 1, critical values are given for variables between 1% and 5% confidence intervals. In addition, Table 1 shows the test values of the variables. According to the ADF and PP unit root test results in the table, it is understood that the relevant variables are stationary at the level of LNFTSE. LNBITCOIN, LNDOW30 AND LNNIK variables contain a unit root at the level. However, when the first differences of the variables are examined, it is seen that the variables BITCOIN, DOW30 and LNNIK do not contain unit-roots.

Table 1. Augmented Dickey-Fuller(ADF)ve Philips-Perron (PP) Unit Root Tests.

Variables	ADF test t-stat	PP test t-stat	Results
Level			
LNBITCOIN	-1.593799	-1.691044	Non-stationary
LNDOW30	-3.283797	-3.165167	Non-stationary
LNNIK	-2.370514	-2.355245	Non-stationary
LNFTSE	-3.47993**	-3.296385*	I(0)
1 st difference			
LNBITCOIN	-22.19742*	-43.85912*	I (1)
LNDOW30	-42.72279*	-42.85273*	I (1)
LNNIK	-44.68200*	-44.67210*	I (1)

Notes: ADF and PP unit root tests include an intercept and trend. With the trend, critical values for ADF and PP tests at %1 and %5 are respectively: -3.96, -3.41.

*Denotes significance at %1 level,

** Denotes significance at %5 level.

Co-integration tests are used to analyze the long-term relationships of variables with each other. In classical cointegration tests, variables must be equally stable. This situation constitutes an important limitation in the cointegration test. This problem is overcome with the ARDL method, which allows the analysis of the long-term relationship between the variables when they are integrated into different degrees [19]. Since one of the variables is I (0) and three are I (1), the ARDL cointegration test was used for analysis. Appropriate lag length criteria must first be determined for the ARDL cointegration test. Critical values such as FPE, AIC, SC, and HQ help determine the optimal lag in the established VAR model. The minimum number of lags for FPE, AIC, SC and HQ is the optimal lag length. In the Var model, which was established with variables, the lag length was determined as 3 according to AIC and SIC criteria.

After determining the appropriate lag length, the ARDL model was established for the co-integration test to be performed.

Table 2. Diagnostic Tests Result

Diagnostic Tests	Statistic
R ²	0.51
Adj.R ²	0.46
F-Statistic	3,766
Ramsey RESET Test	0.235
Normality	0.092
Breusch-Godfrey Serial Correlation	0.1402
Heteroscedasticity	0.850

Diagnostic test results of the ARDL (3,0,0,0) model are given in Table 2. Accordingly, the model does not have autocorrelation and changing variance problem, the model has a normal distribution and there is no error of modeling. Bounds tests are applied to test for the presence of cointegration between variables. Table 3 shows the bounds test results of the model.

Table 3. ARDL Bounds Test (Lags 3,0,0,0)

F-stat	K	Sig.Level	Critical Bound		Decision
			Lower	Upper	
99,29*	3	%10	2,37	3,2	Co-integration
		%5	2,79	3,67	
		%1	3,65	4,66	

H₀ is rejected because the bound F-statistics value calculated as 99,29843 is above the upper limit value at 1%, 5% and 10% significance levels compared to critical values. According to this result, there is a cointegration relationship between the series. In other words, there is a long-term relationship between the variables. Error

correction coefficient is calculated with the model obtained.. The results of the error correction model of the ARDL co-integration test are shown in Table 4.

Table 4. Error Correction Model

	Coefficient	Std.Error	t-statistic
DLNBITCOIN(-1)	-0.0284661	0.023376	-1.217539
DLNBITCOIN(-2)	0.046109**	0.023364	1.973482
DLNBITCOIN(-3)	0.078522*	0.023391	3.356990
D(LNDOW)	-0.13092*	0.014638	-0.894283
D(LNFTSE)	0.051211	0.031636	1.618772
D(LNNIKKEI)	-0.11442**	0.011388	1.004734
CointEq(-1)	-0.093830*	0.040518	-22.30660

Notes: *, **, *** denotes significance at %1, %5, %10 levels respectively.

“CointEq (-1)” represents the cointegration coefficient. This coefficient is the value of the error terms in the long-term relationship of the series, which includes the lag of the previous period, and shows how the short-term imbalance can be corrected in the long-term. In other words, the error correction can be defined as the coefficient of the term. The coefficient found is expected to be negative and statistically significant. When the results of the model in Table 4. are examined, the coefficient of the error correction term is negative and the probability value is less than 0.05. Accordingly, the coefficient is statistically significant. In addition, the fact that the coefficient is negative and meaningful also supports the cointegration relationship. The error correction coefficient means that if a shock or exceptional effect occurs, the imbalance between the short and long period will be corrected by approximately 9% in the next period.

Table 5. Long -run Coefficients

	Coefficient	Std.Error	t-statistic
LNBITCOIN(-1)	0.0788522*	0.023391	3.356990
LNDOW	-0.013092	0.014638	-0.894353
LNFTSE	0.056660***	0.034933	1.623360
LNNIKKEI	-0.012659	0.012591	-1.005430
C	-0.207766	0.189200	-5.670130

Notes: *, **, *** denotes significance at %1, %5, %10 levels respectively.

The model should also be identified by the CUSUM test developed by Brown and et al. whether there is a structural fracture [20]. CUSUM tests are based on a cumulative calculation of error terms. N is expressed by 5% critical lines for observation. CUSUM tests are calculated based on the squares of the error terms at a 5% significance level for n observations. According to the Cusum test result in Figure 1, no structural breakage was found. However, some observations fall outside the Cusum Q test confidence intervals. Therefore, the model does not provide stability for the period analyzed.

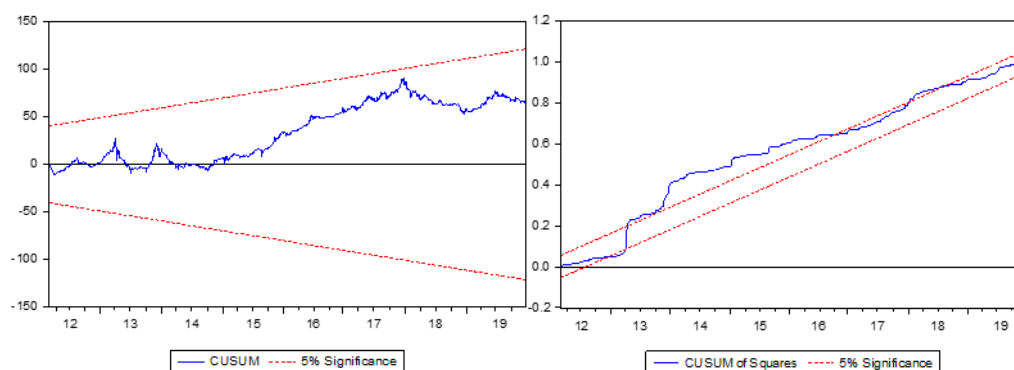


Fig 1. Cusum and Cusum Q Test Results

CONCLUSION

Cryptocurrencies are considered a new financial asset is controversial. The volatility of cryptocurrencies and price increases, it attracts both investors and researchers. The most well-known cryptocurrencies are Bitcoin. There are

few studies in the literature investigating the relationship between ICTcoin and stock market indices. Therefore, it is thought that the study will contribute to the literature.

The cointegration relationship between The Dow, FTSE, Nikkei indices and Bitcoin, which is among the world's major stock indices, has been investigated by the ARDL cointegration test. The bounds test results of the ARDL model show that there is a cointegration relationship between Bitcoin with Dow, FTSE, Nikkei indices. However, structural breaks seen in Cusum Q tests show that this cointegration relationship can be misleading. In subsequent studies may creating a model with a structural break provide different results.

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Protection and Promotion of Human Rights in Insurance A Case-law Analysis with Special Regard to the Right to a Fair Trial

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Abstract

“Business activity affects people’s enjoyment of their human rights in various ways. Companies can affect – positively or negatively – the rights of their employees, their customers, but also the rights of workers in their supply chains. Business conduct may have far-reaching consequences for communities in the vicinity of companies’ operations.” The EU Agency for Fundamental Rights summarized this way the interlinking of business and human rights. As far as insurance is concerned, the relevance of the human rights aspect became widely acknowledged after the decision of the Court of Justice of the European Union (CJEU) on gender-neutral pricing. In order to define more explicitly the legal framework of the protection and promotion of human rights in insurance, the case-law of international judicial fora can give useful guidance. In the current paper, it is intended to examine on the basis of case-studies, how the European Court of Human Rights and the CJEU interpret certain human rights with regards to the specific features of insurance. As insurance is a legal relationship with the possibility of significant imbalance in the parties’ position, particular attention should be given to the question of procedural rights. This way, the case-law analysis can contribute to a more comprehensive understanding and better implementation of the human rights correlations in the insurance.

Keywords: insurance, human rights, respect for private life, non-discrimination, fair trial

1. INTRODUCTION

“Business activity affects people’s enjoyment of their human rights in various ways. Companies can affect – positively or negatively – the rights of their employees, their customers, but also the rights of workers in their supply chains. Business conduct may have far-reaching consequences for communities in the vicinity of companies’ operations.” The EU Agency for Fundamental Rights (FRA) summarized this way the interlinking of business and human rights. [1]

The UN Guiding Principles on Business and Human Rights gives further explanation of the requirement of the respect of human rights in business relationships. *“In all contexts, business enterprises should: (a) Comply with all applicable laws and respect internationally recognized human rights, wherever they operate; (b) Seek ways to honour the principles of internationally recognized human rights when faced with conflicting requirements; (c) Treat the risk of causing or contributing to gross human rights abuses as a legal compliance issue wherever they operate”.* [2] Several other documents at the level of the European Union and the Council of Europe mention the need for respect of human rights with regards to business relationships, including recommendations,[3] conclusions,[4] strategies[5] and handbooks. [6]

These documents give useful guidance on the obligations of the State, implementation of the human rights approach in corporate social responsibility and available remedy mechanisms. However, the compliance with these standards shall be promoted by deriving further specific requirements towards legislation and application of law. The most adequate sources of such an analysis at European level are the case-law of the European Court of Human Rights (hereinafter: ECtHR) and the Court of Justice of the European Union (hereinafter: CJEU).

2. BACKGROUND AND METHODOLOGY

The European Convention on Human Rights (hereinafter: ECHR)[7] is not only a basis of interpretation of the Charter of Fundamental Rights of the European Union (hereinafter: ChFR)[8] and therefore indirectly, EU law (Article 52 Paragraph 3 ChFR) but also a common point of reference in the constitutional law of the Member States.[9] Therefore, before the ChFR, it became possible to rely on the ECHR (as a compendium of the constitutional traditions common to the Member States) in cases falling within the scope of EU law and having human rights relevance.

After the ChFR gained the same legal status as the Treaties, the CJEU had to redefine its role and intensify its activities in the field of human rights adjudication, primarily based on the ChFR. A research done on the references of the CJEU shows that “[f]rom 1998 to 2005, the ECHR was referred to 7.5 times more often than all other human rights instruments the Luxembourg Court relied on, including the Charter. In the period between December 2009 and December 2012, the Court of Justice made reference to or drew on provisions of the Charter in at least 122 judgments. In 27 of these 122 judgments, the CJEU dealt with arguments based on the Charter substantively. The increased reference to the Charter was detrimental to the importance of the ECHR as a source of inspiration. Out of the 122 cases mentioned above, the CJEU referred to the ECHR in just 20 and the CJEU did not refer at all to other sources of human rights jurisprudence. One may conclude that the CJEU has become orientated towards the Charter at the expense of the Convention and the case-law of the Strasbourg Court.” [10]

Differences of approach between CJEU and ECtHR, problems of human rights adjudication have become a major research topic [11] in the last couple of years, especially in the light of the EU’s possible accession to the ECHR. [12] Although it is not the aim of the current paper to analyse these developments, they prove that the parallel and comparative analysis of the case-law of these two courts has major added value to the examination of certain human rights related issues.

Therefore, in the following, it is intended to examine on the basis of case-studies, [13] how the ECtHR and the CJEU interpret certain human rights with regards to the specific features of insurance. “*Academic comments on case law are a point of reference for practitioners, both explaining what a judgment does not explicitly say and commenting on the choices made by the courts, for example through comparing the judgment and its reasoning with earlier decisions in case law and scholarly debate.*” [14]

As far as the respect of human rights in business relationships is concerned, such an analysis is especially important, as the relevant literature focuses mainly [15] on corporate governance, corporate social responsibility, aspects of law and economics; [16] it refers to certain forms of insurance related to the specific human rights, e.g. legal aid insurance, health insurance etc., [17] or social security in general.[18]

Due to the specific features of the procedures, the focus of the case-law of the two courts lies on different types of insurance. As regards the procedures of the Strasbourg court, it shall be stressed that “*compatibility ratione personae requires the alleged violation of the Convention to have been committed by a Contracting State or to be in some way attributable to it.*” [19] Therefore, a significant part of the cases mentioned from the case-law of ECtHR is related to social insurance or compulsory insurance carried out by private actors. In case of the procedures of the Luxembourg court, a certain limitation of the case-law comes from the fact that according to Article 51 Paragraph (1) ChFR, its provisions are addressed “*to the Member States only when they are implementing Union law*”. Thus, the CJEU does not have jurisdiction if the given question is related to such regulatory solutions through which Member States are not implementing EU law (e.g. conditions and extent of special non-contributory cash benefits [20] or certain procedural aspects related to insurance against civil liability [21]). [22]

The parallel examination of the case-law of the two courts, however, can contribute to a more comprehensive understanding of the human rights correlations in the insurance sector as a whole.

3. RESPECT FOR PRIVATE LIFE

First of all, it is worth analysing some very recent decisions of the ECtHR relating to the respect for private life as foreseen in Article 8 ECHR.

In the first case, [23] the applicant wished to obtain insurance benefits after an accident causing health problems and incapacity to work. On the basis of her refusal to undergo a medical examination and the results of a covert monitoring – about the possibility of which the applicant was not informed – the insurance company refused to grant any benefits to the applicant. The substantial element of the procedure before the ECtHR concerned the question whether the interference in the applicant's private life – caused by the permanent nature of the footage and its further use in an insurance dispute – may be justified under the ECHR. The ECtHR stated that according to the applicable national law, if an insured person does not comply with the obligation to submit the requested information insurance companies are allowed to take of their own motion the necessary investigative measures and collect necessary information. Nevertheless, the court found that the scope of these measures was not defined with sufficient clarity. Especially it was not evident whether the possible measures include or at least imply the recording of images or videos.

Furthermore, the ECtHR concluded that certain basic safeguards for the justification of the interference in the private life were lacking: a.) procedures to follow for the authorisation or supervision of the implementation of secret surveillance measures; b.) details as regards the maximum duration of the surveillance measures; c.) possibility of the judicial challenge; d.) details on storing, accessing, examining, using, communicating or destroying the data collected. Therefore, the legal provisions applied by the insurance company did not constitute a sufficiently clear and detailed legal basis for the interference in the applicant's private life.

From this judgment two obligations might be derivable. Firstly, and most generally, the regulation relating to insurance shall only contain such limitations to the respect for private life – and indirectly to other human rights – which are in line with the basic principles of necessity – proportionality, legal certainty. Secondly, an obligation for the insurance companies might appear to apply national laws in line with the basic principles of human rights protection and assess the effects of their interpretation from the human rights perspective as well.

The next cases, however, show that the standards of such an assessment might be different based on the nature of the insurance. In a recent decision, [24] the Strasbourg court had to rule on a case of surveillance by an insurance company whose purpose is to conclude insurance contracts subject to private law. The ECtHR reiterated that Article 8 ECHR is essentially intended to protect the individual against arbitrary interference by the public authorities; nevertheless it imposes on the State the obligation to introduce certain positive measures as well. However, the court found that this obligation of the State was satisfied by the fact that the applicant had available criminal and civil remedies to complain about the alleged violation of his rights. Interestingly, the ECtHR stressed the thorough analysis of the competing interests carried out by national courts. It emphasized that the insurer's investigations, conducted from the public domain and limited to the applicant's finding of mobility, were intended solely to preserve the proprietary rights of the insurer. Therefore, the ECtHR declared the application inadmissible.

The examination of the purpose of interference and the recognition of the overriding interest of the insurer [25] seem to confirm, however, that a certain balance between business interests and human rights protection shall be strived for even in insurance relationships of purely private law nature.

A similar assessment of competing interests follows from a decision from the end of 2018. [26] In the given case the payment of a special disability pension – non-contributory social security benefit – was discontinued due to the absence of domicile in the country. The ECtHR considered that the refusal to pay the benefits abroad constituted an interference with the rights of the applicants protected by Article 8 ECHR as it had an impact on the way of organizing their lives. Nevertheless, the ECtHR founded that the interference was justified; it was provided for by law and it pursued a legitimate aim, namely the solidarity of the insurance scheme, social security, which may be related to the protection of the rights of others and the economic well-being of the country.

Although the CJEU case-law does not contain specific cases where the relationship of the right to respect for private life and insurance would have arisen, there are corresponding findings to the main conclusions derived from the ECtHR case-law.

The CJEU stressed in a decision related to data processing that “*the protection of the fundamental right to private life guaranteed under Article 7 of the Charter of Fundamental Rights of the European Union (‘the Charter’) requires that derogations and limitations (...) must apply only in so far as is strictly necessary.*” [27] In this assessment the objectives of general interest recognised by the European Union or the need to protect the rights and freedoms of others are of relevance. [28] This means that besides the classic cases of collision of fundamental rights, aims like ensuring transparency, [29] prevention, investigation, detection and prosecution of breaches of ethics for regulated professions, [30] establishment of a common organization of the market (free movement), [31] the

efficiency of judicial proceedings, [32] certain financial interests of the states or the EU as a whole, including combating tax evasion and tax avoidance, [33] stability of the banking system, [34] reducing public sector wage costs and reforming the pension system [35] might justify certain limitations.

Nevertheless, it is also evident from the case-law that such limitations shall fulfil certain basic requirements, namely: they must lay down clear and precise rules governing the scope and application of the measure in question and impose minimum safeguards to ensure effective protection of rights. [36]

Therefore, the general case-law of CJEU seems to be in line with the more concrete findings of ECtHR in relation to insurance relationships: economic interests seem to be a major factor in the assessment of the potential violation of the right to private life. However, the careful assessment of legality, necessity, proportionality as well as the accessibility of efficient legal remedies is a basic requirement, not only towards the legislator, but – according to certain judgments – also towards the parties applying the relevant legal provisions.

4. NON-DISCRIMINATION

The next focal point of the case-law analysis is related to the question of non-discrimination. [37] According to the interpretation of CJEU, *“the source of the principle of non-discrimination (...) to be found in various international instruments and in the constitutional traditions common to the Member States and that that principle, now enshrined in Article 21 of the Charter of Fundamental Rights of the European Union, must be regarded as a general principle of EU law”*. [38]

The relevance of the human-rights aspect in insurance became widely acknowledged after a decision of CJEU related to non-discrimination, namely to the question of gender-neutral pricing of insurance contracts. [39] In the specific case the CJEU concluded that the rules in question posed a risk that EU law may permit the derogation from the equal treatment of men and women, which would be incompatible with Articles 21 and 23 of the ChFR.

According to CJEU, the principle of equal treatment requires basically that *“comparable situations must not be treated differently, and different situations must not be treated in the same way, unless such treatment is objectively justified”*. [40] The comparability of situations must be assessed in the light of the subject-matter and purpose of the EU measure which makes the distinction in question. [41] In case of comparable situations, the difference in treatment is justified *“if it is based on an objective and reasonable criterion, that is, if the difference relates to a legally permitted aim pursued by the legislation in question, and it is proportionate to the aim pursued by the treatment”*. [42]

In a case based on a request for preliminary ruling concerning financial collateral arrangements, [43] the CJEU found that the striving for improvement of legal certainty and effectiveness of financial collateral in order to provide stability in the financial system can be considered as an objective criterion in terms of the analysis of non-discrimination. In relation to compulsory liability insurance the CJEU found that the aim of protecting consumers (potential victims) can be justified under EU law. [44] The CJEU also examined a case of non-contributory social benefits – similar to the above mentioned *Belli and Arquier-Martinez v. Switzerland* case – from the point of view of equal treatment. The judgment *“concerned non-contributory social security benefits, such as child benefits, which were conditioned to the right to reside in the UK in accordance with Directive 2004/38. The CJEU ruled that such condition of lawful residence in respect of economically inactive EU citizens was not contrary to the social security regulation.”* [45] It ruled that *“the need to protect the finances of the host Member State justifies in principle the possibility of checking whether residence is lawful when a social benefit is granted in particular to persons from other Member States who are not economically active, as such grant could have consequences for the overall level of assistance which may be accorded by that State.”* [46] In another decision, related to social security schemes to employed persons, however, the CJEU stressed that in case of modification of the respective regulatory environment, the principle of free movement of persons precludes an unjustified difference of treatment between residents and non-residents as regards the continuity of the overall protection against the risk of sickness enjoyed by them under insurance contracts. [47]

In the field of proportionality of the different treatment in question to the aim pursued, the CJEU carries out a complex examination of the situation of the people concerned, including the factors they should be aware of, patterns of behaviour, other legal provisions that can result in the elimination or sufficient reasoning of potential disproportionate effects, [48] duration – transitory or indefinite nature – of the differentiated treatment. [49]

These judgments of the CJEU lead to a similar conclusion as also seen in the case of the right to respect for private life: the general principles of EU law, especially the specific rights concerning the free movement result in a more complex assessment of the justified or unjustified nature of the difference of treatment.

While rather economic aspects are in the centre of the CJEU jurisprudence concerning non-discrimination, the case-law of ECtHR often connects the question of respect for private life with the question of non-discrimination in

cases related to insurance. The approach taken by the ECtHR on striking a balance between the individual's right to respect for his identity (both in case of the state [50] and private insurers [51]) and economic interests shows in a direction that the case falls into a category where particular care is needed in the assessment of human rights violations. In general, the ECtHR concluded that “[w]here a particularly important facet of an individual's existence or identity is at stake, the margin allowed to the State will normally be restricted”. [52] As insurance often affects these interests, it can be concluded that any difference in treatment of persons belonging to comparable groups based on such factors requires serious and well-founded justification; the mere reference to practical difficulties or economic interests does not seem to be sufficient. This is a principle that could and should be taken into account by the insurers as well.

This conclusion follows also from a decision, [53] where the ECtHR examined the correlation of disability insurance and gender equality. The applicant's disability allowance was stopped due to the application of the “combined method”, which “presupposed that even if she had not had a disability the applicant would not have worked full time after the birth of her children”. [54] The court concluded that “the « combined method » of calculation is not in accordance with the aim of gender equality in modern society, where women increasingly have the legitimate desire of reconciling family life and professional interests”. [55] This way, the discriminatory method of calculating disability allowance touched upon a central element of identity, namely maternity, life-work balance.

In other contexts, however, the social and economic rationale is taken into account by the ECtHR. In another case the court had to deal with the question whether the lack of affiliation to the old-age pension system for work in prison is discriminatory. The applicant argued that, “had he been affiliated to the old-age pension system for work performed in prison, he would have accumulated the necessary number of insurance months and would consequently have been entitled to a pension”. [56] The ECtHR recalled that from the protection of property as foreseen in Article 1 of Protocol No. 1 does not follow the right to receive a social security payment of any kind. [57] However, if a State does decide to create a benefits scheme, it must do so in a manner which is compatible with the principle of non-discrimination. This also means that if there is a difference in treatment, it shall pursue a legitimate aim and must be proportionate with it. The ECtHR concluded that “preserving the economic efficiency and overall consistency of the old-age pension system by excluding from benefits persons who have not made meaningful contributions, are legitimate ones” (Stummer v. Austria, para 98.). [In the given case, the fact that the State gave priority to unemployment insurance, which it considered to be the most relevant for the reintegration of prisoners upon their release, contributed to the proportionality of the measure and stayed within the margin of appreciation.]

On the one hand, this approach can be seen as recognition of the specific features and economic correlations of insurance. On the other hand, however, it might be a reason why the ECtHR case-law “can be criticized for applying the comparability test in a manner that is not transparent and also the role and width of the margin of appreciation often remain unclear”. [58] Nevertheless, the emphasized protection of the core elements of identity seems to offer at least a point of orientation, a general basis for assessment.

5. FAIR TRIAL, PROTECTION OF THE WEAKER PARTY

The next topic where the specific features of insurance may have relevance in the case-law of the two fora is related to procedures, more precisely to the right to a fair trial.

Article 6 of the ECHR states that “[i]n the determination of his civil rights and obligations or of any criminal charge against him, everyone is entitled to a fair and public hearing within a reasonable time by an independent and impartial tribunal established by law (...).” [59] This definition gives a framework for the assessment of a certain quality of procedures, [60] which is determined by several elements. Such elements of Article 6 ECHR might be – according to the ECtHR case-law – the following: the right of access to court, right to fair hearing, the right to be tried by a court established by law, right to a public hearing and public pronouncement of the judgment, the principle of impartiality or independence of the court, the right to a decision within a reasonable time, the principle of adversarial proceedings and equality of arms, and the right to a motivated judgment. [61]

As insurance is a typical example for legal relationships, in which there is a significant difference in the financial possibilities or legal knowledge of the parties, the right to access to a court and the principle of equality of arms are primarily relevant. [62] The ECtHR and CJEU define equality of arms basically in a similar way: “Equality of arms” and other considerations of fairness therefore also militate in favour of a free and even forceful exchange of argument between the parties.” [63] In insurance relationships, however, it is highly probable that due to the lack of legal knowledge the weaker party cannot present his arguments effectively in a court procedure, is not aware of the procedural possibilities in the fields of gathering evidence, seeking legal remedy or interpreting legal norms. The limited financial resources and psychological factors (that stem from the fact that generally in such cases private persons are involved in a legal dispute with multinational companies) might result that the weaker party is often not

in the position to take the risk of long and costly procedures.[64] The CJEU confirmed this conclusion as it stated that there is a need “to protect the insured who is most frequently faced with a predetermined contract the clauses of which are no longer negotiable and who is in a weaker economic position.” [65] Furthermore, in a case related to the regulation on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters – containing beneficiary rules for certain legal relationships – the CJEU recognized that “the notion of the ‘weaker party’ has a wider acceptance in matters relating to insurance than those relating to consumer contracts or individual employment contracts.” [66]

In a case related to the excessive length of the enforcement of a court decision on payment of unpaid salaries and the payment of pension and health-insurance contributions, the ECtHR also referred to the specific nature of insurance – with special regard to health-insurance. It ruled that the subject matter of the applicants’ claims were undoubtedly of great importance to the applicants and therefore special diligence was necessary. “The Court reiterates that the State has an obligation to organise a system for the enforcement of judgments that is effective both in law and in practice and ensures their enforcement without undue delay”. [67]

The CJEU’s case-law seems to add an extra element to this assessment, namely, that the nature of the legal relationship itself is not the only factor to be analysed when referring to the need of protective rules in insurance; such rules should not apply to insurance contracts in which the insured enjoys considerable economic power. [68] While the nature of the ECtHR procedures makes it possible to examine the position of the parties in the given context, [69] the CJEU generally decides on legal norms; therefore is the case-by-case exclusion of certain groups of insurance relationships more difficult. Nevertheless, the case-law shows that certain natural persons might be excluded from the protection of weaker parties on the basis of their professional activities, if these activities are carried out on the same scale as insurers. [70] After comparing the legal position of the parties in general (in lack of a solid ground of the protection of a party), the CJEU excluded the relations between insurers in the context of third-party proceedings [71] and reinsurance [72] from the application of the preferential rules of jurisdiction in case of insurance contracts.

The question arises, what kind of measures are needed to ensure the equality of arms in insurance relationships, where the party’s situation makes this necessary. According to the ECtHR case-law, the principle of equality of arms cannot be interpreted as prescribing specific procedural measures. [73] The existence of certain inequalities in the parties’ procedural possibilities (being often inevitable or evident) does not automatically result in the unfairness of the procedure either. However, a certain approach, sensitivity towards the protection of the weaker party can be derived from the case-law. This conclusion seems to be confirmed in a decision where the ECtHR had to examine a case related to a decision on the applicant’s entitlement to receive a disability allowance (under social security scheme). The legal problem was related to questioning the objectivity of the respective disability commissions or the accuracy of their findings, which had an important influence on the outcome of the proceedings. The ECtHR took into account that “the applicant had an opportunity to challenge the relevant decisions of the Institute before the Labour and Social Court. (...) The Labour and Social Court held an oral hearing at which the applicant was in a position to put forward her arguments related to, inter alia, the findings of the disability commissions’ opinions. (...) However, the applicant failed to submit any argument questioning the disability commissions’ findings, other than disputing them. The applicant hence failed to substantiate to the minimum necessary degree her request for the appointment of an independent expert”. [74] The reference made to the minimum necessary degree of substantiating the argument and the stressing of the oral hearing as a framework for bringing the arguments seem to point in a direction that in case of a reasonable argumentation, the court would have considered the specific position of the weaker party (more beneficial requirements towards his arguments).

Nevertheless, the ECtHR does not seem to define certain precise requirements as regards the protection of weaker parties in litigation related to insurance. This approach is in line with the general principles of fair trial, namely, that it is described as a quality of the procedure, which can be assessed only on the basis of all circumstances of the case. [75]

Similar conclusions stem from the case-law of CJEU, which stresses that the aim of that principle is to ensure a procedural balance between the parties to judicial proceedings, which, however, does not entail the obligation to put the parties on an equal footing in every aspect of legal proceedings. [76] The case-law of CJEU explicitly confirms that full equality of arms is ensured if the procedure gives the parties an adequate and proper opportunity to present their case. [77] The effective legal protection shall be ensured in all procedures forming part of the implementation of Union law (and therefore covered by ChFR).[78] Concerning the way of realizing this principle less guidance can be found in the case-law of CJEU. The main point of reference is that the ChFR explicitly contains a specific legal institution that should primarily safeguard the efficient access to justice, namely legal aid. According to Article 47 Paragraph (3) CHFR: “[l]egal aid shall be made available to those who lack sufficient resources in so far as such aid is necessary to ensure effective access to justice.” Therefore, the CJEU case-law rather focuses on legal aid in

connection to the protection of equality of arms. According to the CJEU case-law Member States have significant elbowroom to adapt the system of legal aid to the capacities of the state budget, as the right to an effective access to justice – as part of the right to a fair trial – “*may be subject to restrictions, provided that the restrictions in fact correspond to objectives of general interest pursued by the measure in question and that they do not constitute, with regard to the objectives pursued, a manifest and disproportionate breach of the rights thus guaranteed*”. [79] However, the case-law of the CJEU generally does not go beyond this statement: due to the lack of jurisdiction no further guidance was given in a preliminary rulings procedure on the question, whether the exclusion of legal persons pursuing a commercial objective from obtaining legal aid can be reconciled with the principle of effective judicial protection. [80] Similarly, the question on the impact of compulsory mediation in insurance relationships on the principle of effective judicial protection remained unanswered. [81] However, even in the absence of more specific rules of EU law, the margin of appreciation should be applied in a manner consistent with the requirements of the protection of fundamental rights: [82] the conditions of legal aid shall not be defined in a discriminatory manner, shall respect the principle of proportionality in connection with restriction of rights and the efficient and actual possibility of access to justice should not be depleted.

From the approach of ECtHR and CJEU seems to follow that in cases concerning the specific question of adversarial proceedings or equality of arms, the wider context of fairness of the proceedings is analysed. The CJEU acknowledges the need for assessing other general interests as well and the ECtHR adds that “[t]o that end it will examine each of the grievances raised by the applicant and then undertake an overall assessment of the fairness of the proceedings”. [83] In the context of obligations of insurers, this might lead to the conclusion that the attitude of the “stronger” party (in the context of insurance, the acts of the insurer) might have relevance in the human rights based assessment as well.

6. CONCLUSION

The short analysis of these selected judgments seems to confirm that in cases related to insurance, the ECtHR usually refers to the specific features of this legal relationship. It might be concluded that the ECtHR considers insurance rather as a classic contractual relationship of equal parties (and provides for a certain margin of appreciation even in social insurance schemes) and takes into account the overall circumstances of the cases; the economic interests of the insurer on the one side and the private interests of the individual on the other. In the case-law of the CJEU the general principles of EU law – especially single market – form an important framework for interpretation in relation to insurance. The analysed judgments suggest that in matters related to insurance the implementation of EU law – more precisely the interpretation derived from the Treaties or secondary legislation – is the primary basis of assessment. The human rights related, and therefore more abstract principles of the ChFR form rather a theoretical foundation, confirmation for these conclusions. [84]

It follows also from this phenomenon that as far as the limitation or restriction of human rights is concerned (at least in the context of the currently analysed rights), the possible grounds for justification in terms of EU law are much broader, because they usually include the reference to the general interests recognised by the European Union.

The examined case-law of ECtHR also establishes a certain balance between economic interests and the protection of fundamental rights (several decisions refer to the financial rationale behind insurance). However, it also stresses that the more direct the link to the core of the individual’s existence or identity is, the more careful assessment of business interests and human rights is needed. For the legislator and the parties of insurance relationships follows that the interference with the private sphere and the difference in treatment – being to a certain extent inevitable by virtue of the nature of insurance – shall not touch upon the most sensitive elements of personality (especially without the basic legal safeguards).

Both courts confirm that the insured person (policy-holder, beneficiary) is usually in a weaker position compared to the insurer. The interpretation of the right to a fair trial in relation to insurance relationships takes the characteristic features of these legal relationships into account in line with the general principles elaborated with respect to the protection of ‘equality of arms’. In the framework of their respective competences both courts take the nature of the whole procedure into account when deciding on the fairness of procedures or the effective judicial protection. Therefore, in terms of the obligations of the legislator and the insurer follows that they shall act in a way that it ensures a fair and balanced participation for the insured in the process; the stronger position of the insurer should not make the meaningful involvement in the legal dispute for the insured practically impossible.

These elements of the case-law of the ECtHR and the CJEU show how a conscious approach on human rights can help in maintaining the balance between the two aspects that shall be reconciled in insurance: the trust of consumers in the transactions and the liberties of market actors.

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- [69] “*The fact that proceedings are of considerable personal significance to the applicant, as in certain social insurance or benefit cases, is not decisive for the necessity of a hearing.*” ECtHR, *Jussila v. Finland*, Application no. 73053/01, judgment of 23 November 2006 [ECLI:CE:ECHR:2006:1123JUD007305301], para 44.
- [70] “*Article 13(2) of Regulation (EU) No 1215/2012 of the European Parliament and of the Council of 12 December 2012 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters, read in conjunction with Article 11(1)(b) of that regulation, must be interpreted as meaning that it may not be relied on by a natural person, whose professional activity consists, inter alia, in recovering claims for damages from insurers and who relies on a contract for the assignment of a claim concluded with the victim of a road accident, to bring a civil liability action against the insurer of the person responsible for that accident, which has its registered office in a Member State other than the Member State of the place of domicile of the injured party, before a court of the Member State in which the injured party is domiciled.*”
- CJEU, C-106/17, *Pawel Hofsoe v. LVM Landwirtschaftlicher Versicherungsverein Münster AG*, judgment of 31 January 2018 [ECLI:EU:C:2018:50]
- [71] CJEU, C-77/04, paras 23-24.
- [72] CJEU, C-412/98, *Group Josi Reinsurance Company SA v. Universal General Insurance Company (UGIC)*, judgment of 13 July 2000 [ECLI:EU:C:2000:399] para 75. Nevertheless, the latter fact does not exclude that the contracting party, insured or beneficiary relied on the special head of jurisdiction, if it would enforce a claim directly against the reinsurer, e.g. in case of bankruptcy or liquidation of the insurer.
- [73] ECtHR, *Avotiņš v. Latvia*, Application no. 17502/07, judgment of 23 May 2016 [ECLI:CE:ECHR:2016:0523JUD001750207], para 119.
- [74] ECtHR, *Devinar v. Slovenia*, Application no. 28621/15, judgment of 22 May 2018 [ECLI:CE:ECHR:2018:0522JUD002862115], paras 54-58.
- [75] ECtHR, *Reinhardt and Slimane-Kaïd v. France*, Application no. 23043/93, 22921/93, judgment of 31 March 1998 [ECLI:CE:ECHR:1998:0331JUD002304393], para 104.
- [76] CJEU, C-543/14, *Ordre des barreaux francophones et germanophone and Others, Jimmy Tessens and Others, Orde van Vlaamse Balies, Ordre des avocats du barreau d'Arlon and Others v. Conseil des ministres*, judgment of 28 July 2016 [ECLI:EU:C:2016:605], paras 41-42.
- [77] “*Article 6(3) of the ECHR does not require that every witness be called but is aimed at full equality of arms, ensuring that the procedure in issue, considered in its entirety, gave the accused an adequate and proper opportunity to challenge the suspicions concerning him.*”

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- CJEU, C-609/13 P, *Duravit AG and others v. European Commission*, judgment of 26 January 2017 [ECLI:EU:C:2017:46], para 110.
- [78] CJEU, C-94/18, *Nalini Chenchooliah v. Minister for Justice and Equality*, judgment of 10 September 2019 [ECLI:EU:C:2019:693], para 84.
- [79] CJEU, C-619/10, *Trade Agency v. Seramico*, judgment of 6 September 2012 [ECLI:EU:C:2012:531], para 55.
- [80] CJEU, C-258/13, *Sociedade Agrícola e Imobiliária da Quinta de S. Paio Lda v. Instituto da Segurança Social IP*, order of 28 November 2013 [ECLI:EU:C:2013:810].
- [81] CJEU, C-492/11, *Ciro Di Donna v. Società imballaggi metallici Salerno srl (SIMSA)*, judgment of 27 June 2013 [ECLI:EU:C:2013:428]
- [82] About the application of margin of appreciation in line with fundamental rights: Opinion of Advocate General Trstenjak (22 September 2011) in Case C-411/10, *N. S. v. Secretary of State for the Home Department* [ECLI:EU:C:2011:611] para. 81; C-5/88, *Hubert Wachauf v. Bundesamt für Ernährung und Forstwirtschaft*, judgment of 13 July 1989 [ECLI:EU:C:1989:321], para. 22.
- [83] ECtHR, *Martinie v. France*, Application no. 58675/00, judgment of 12 April 2006 [ECLI:CE:ECHR:2006:0412JUD005867500] para 45.
- [84] CJEU, C-347/18, *Alessandro Salvoni v. Anna Maria Fiermonte*, judgment of 4 September 2019 [ECLI:EU:C:2019:661], paras 45-46.

Project Management Tools in International Development and Their Influence on the Project Success

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Abstract

This study focuses on project management, especially on international development (ID) projects which are – due to their characteristics - different from projects in the private sector. Therefore, it is not possible to apply standard methodologies such as PMBOK or PRINCE2. However, a generally accepted methodology for ID projects does not exist so far and individual donor organisations might therefore require different sets of project management tools from the implementing agencies. Based on the existing literature, the most common tools used on ID projects will be identified in this article and their influence on the internal and external project success will be evaluated. The goal of this study is to help project managers with the right choice of project management tools to achieve successful project outcomes.

Key words: international development projects, project success, project management tools

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1. INTRODUCTION

The goal of this article is to, based on existing literature, identify project management (PM) tools used on ID projects and evaluate their influence on the project outcome. To reach this goal, a literature review was conducted, which included articles from professional journals, project management methodologies and conference papers. The literature was searched for in electronic sources of the University of Economics in Prague (such as ProQuest Central or JSTOR) and in Google Scholar; some of the articles were found in the professional journals focused directly on project management, in particular from the International Journal of Project Management.

This article is structured into 7 sections: the first section is an introduction, the second section focuses on the characteristics of ID projects and section 3 deals with the importance of project management, shows a brief overview of individual project management tools and their supporting literature. Sections 4 and 5 present theoretical background of internal and external project success and a summary of tools used by project managers from NGOs. Section 6 then compares the existing empirical studies and their results: it compares tools used by managers from different regions and the influence their application has on the project outcome. Section 7 is a conclusion and identifies also possible gaps for future research.

At the beginning of this article, it is necessary to define the term project. I have selected a definition of Project Management Institute, an international platform of project managers and a certification body. Project Management Institute describes project as a temporary effort that is undertaken with the goal to create a unique product, service or outcome (PMI, 2017). Other definitions of a project do not differ much: they emphasise its clearly limited duration, use of temporary teams, uniqueness of every project and the creation of a new product (Axelos Limited, 2017, PM4DEV, 2014, Kliem, Ludin, Robertson, 1997, ISO:1006, 2017).

Even though projects are traditionally associated with a construction business or IT services, in the last decades, projects have been used extensively also as a form of international development cooperation (Motes-Guerra et al.,

2015): for illustration, 30 000 international development projects (ID PROJECT) were undertaken in 2003 only (Ika et al., 2012).

ID projects are public sector projects that are financed by a donor and their goal is to improve economic and/or social situation in the developing countries. Projects are often led by a third party implementor – an NGO, a private sector supplier or a state institution (Ahsan and Gunawan, 2010). The majority of projects is financed by five development banks (the World Bank Group, the African Development Bank, the Asian Development Bank, the Inter-American Development Bank and European Bank for Reconstruction and Development) with the World Bank (WB) having the largest share (Ahsan and Gunawan, 2010).

However, the success rate of ID projects is still rather low: till the end of the last millennium, the World Bank reported over 50 % of its projects in Africa as failed, and although the success rate has been improving, it did not exceed 61% till 2010 (Ika et al., 2012). Given the funds invested in international development, the success rate might still be seen under an acceptable level (Diallo and Thuillier, 2004). Ika (Ika et al., 2011) suggests that the World Bank's ID projects fail mostly due to managerial and organisational issues - as the WB only awards, monitors and evaluates its projects with the implementation being done by national coordinators from the respective developing countries where the project manager functions are entrusted to professionals who lack both the experience and/or education in the field of project management (Ika, 2012).

2. CHARACTERISTICS OF ID PROJECTS

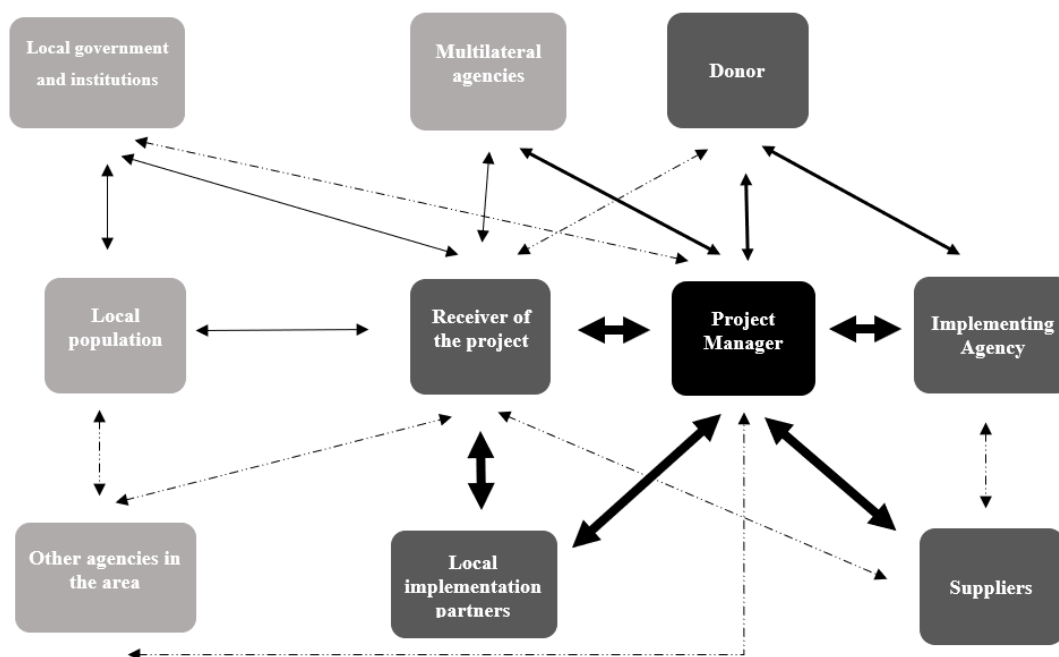
ID projects are rather complex projects implemented in a risky environment: international development cooperation must deal with difficult natural conditions, political and institutional situation in developing countries or with specific social and technological factors. Furthermore, the projects are frequently affected by the lack of resources – both financial and human – and cultural differences (between the donor and receiver country, various stakeholders or within the project team). Last but not least, ID projects deliver often intangible outcomes that are difficult to measure (Golini and Landoni, 2004, Ahsan and Gunawan, 2010, Matos, 2019, Hermano et al., 2013).

The combination of intangible outcomes and the poor market pressure during the implementation and evaluation of projects may make ID projects prone to political manipulation: good ID projects can face resistance from the governments of the developing countries due to their own political goals or, on the other hand, project with unrealistic goals might be requested by the developing countries due to the same reasons (Khang and Moe, 2008). Not surprisingly, donor countries might use their development aid as a mean to create political alliances (Khang and Moe, 2008).

ID projects are also specific due to a large number of various stakeholder groups and the fact that each of these stakeholders can perceive success of the project differently. The project is led by a project manager and their team, it is financed by a donor agency, but the client of the ID projects is often a not clearly defined group of people in the receiving country or the population of the country in general (Golini et al., 2015). In the framework of the World Bank's projects there is also a national advisor and steering group (Diallo and Thuillier 2004, Hermano et al., 2013).

Inevitably, as the aid receivers do not finance the projects, they have only a limited influence on the design, implementation and the outcomes of the projects. Therefore, there are more in a role of influencers than of proper clients. (Golini and Landoni, 2014). The complex connections between the stakeholders of ID projects are shown in Graph 1 below.

Graph 1: Stakeholders in ID projects
 Source: adjusted, based on Golini and Landoni, 2014 and Ahsan and Gunawan, 2010



3. PROJECT METHODOLOGIES AND TOOLS

The existing literature on success factors of ID projects (Kwak, 2002, Khan et al., 2003, Khang and Moe, 2008, Diallo and Thuillier, 2005) discusses the importance of project management and includes it amongst the key success factors. However, given the specific characteristics of ID projects, it is unfortunately not possible to simply adopt standard project methodologies from the private sector: first it is crucial to understand the specifics of the ID projects and then evaluate which methodologies or tools would suit best (Matos, 2019, Golini and Landoni 2014, Hermano et al., 2013).

Project management methodologies are sets of tools, templates, best practices and attitudes used on projects (Špundak, 2014, PMI, 2017, Keleckaite, 2015) that can increase the chance of success for the project (Pace, 2019, Lazima and Coyle, 2019). The application of project management methodologies can bring both short-term, but also long-term benefits to the organisation: these include lower project costs, improved communication, feedback and risk management, lower risk of the programme as a whole or client’s satisfaction (Keleckaite, 2015).

Much attention is paid to the project management in the private sector and a variety of methodologies has been created (PMBOK, PRINCE 2, etc.); however, literature focused on project management of ID projects is more limited and processes are not standardised (Steinfort, 2010, Ika et al. 2012, Montes-Guerra et al. 2015). The standardisation is also made more difficult due to the specifics and complexity of ID projects (Golini et al., 2015, Matos, 2019, Ika et al., 2012). Moreover, to use the PM tools to their full potential, it is necessary to adopt them in compliance with the cultural and work values of the given developing country (Ahsan and Gunawan, 2010, Muriithi and Crawford, 2003).

Even tough specific project management methodologies have been created for ID projects (PM4DEV, PM4NGO), there are not widely implemented and governments and organisations such as the World Bank, European Commission or UNDP have been currently working on setting up their own project processes, however, with no or limited co-operation with each other (Montes-Guerra et al., 2015).

Research from Poland (Czahajda, 2019), Lithuania and Germany (Keleckaite, 2015) shows that project methodologies are not widely used in NGOs working not only in the development sector: only 18% of Polish project managers and 58% of Lithuanian project managers from NGOs apply project methodologies on their projects. An exception might be Germany where all project managers claimed to use them, however, 42% stated they apply their own.

The importance of experience of project managers is documented in a research on the World Bank and Asian Development Bank projects (Bulman et al., 2015) that shows that the project success is not influenced by the

receiving country, but depends on project specific indicators; first it depends on macroeconomic indicators such as GDP growth and political situation, and secondly on microeconomic indicators, such as the project length (with positive correlation) and the project manager’s experience (with significant positive correlation): an increase in project manager’s experience by one standard deviation may increase the chance of project success by 6% for World Bank projects and even by 7% for Asian Development Bank projects (Bulman et al. 2015). This fact is also confirmed by Howlett and Goyal (2018) that prove a positive correlation between project management and the success of Asian Development Bank projects.

Before going further to the analysis of the influence of project management tools on the project success, an overview of individual tools is listed below including also positive impacts of their application and supporting literature from the context of the development cooperation. Some of the tools are well studied and described by various project methodologies, e.g. PM4DEV or PMBOK, however, some have received less attention in the literature. The tools were selected based on the studied by Matos (2019), Golini, Kalchschmidt and Landoni (2015), Montes-Guerra, De-Miguel, Pérez-Ezcurdia, Gimena Ramos a Díez-Silva (2015), Keleckaite (2015), and Czahajda (2019).

As mentioned, some tools were given more focus than others: the most researched is probably the logical framework (Montes-Guerra et al., 2015, Couillard et al., 2009, Golini et al., 2015, Hermano et al. 2013, PM4DEV, 2014, Golini and Landoni, 2014, Matos, 2019) that was first used by USAID in 1969 (Couillard et al., 2009) and has already been modified few times to better serve the project teams. On the other hand, the research on the importance of organisational graph or communication plan is limited (e.g. Zulch, 2014, Matos, 2019, PMI, 2013, PM4DEV, 2014).

The overview of the PM tools and their supporting literature is presented the table 1 below.

Table 1: Project management tools on ID projects

PM tool	Positive impact	Literature
Logical framework	Clearly defined project for financing Easily understandable for stakeholders Clear goal hierarchy	Montes-Guerra et al., 2015, Couillard et al., 2009, Golini et al., 2015, Hermano et al. 2013, PM4DEV, 2014, Golini and Landoni, 2014, Matos, 2019
Progress reports	Timely and formally defined information channel for stakeholders Space for suggestions of change and corrective measures	Ika et al. 2012, Julian, 2016, Matos, 2019, PM4DEV, 2014, Montes-Guerra et al., 2015, Hummelbrunner and Jones 2013, Martens et al., 2013, Kwena et al., 2019
Risk management	Clear definition and analysis of risks Clear overview Possibility to monitor risks	Mitchell and Harris, 2012, Kwak and Dewan, 2001, Golini and Landoni, 2014, PM4DEV, 2014, Matos, 2019, Martens et al., 2013
Gantt diagram	Simple, visual, easy to understand	Burkhard et al., 2005, Furumo et al., 2006, Golini and Landoni, 2014, PM4DEV, 2014, Matos, 2019, Montes-Guerra et al., 2015
Communication plan	Transparent communication Suitable amount of communication for stakeholders Motivation of the project team	Zulch, 2014, Matos, 2019, PMI, 2013
Milestone planning	Flexibility Implementation of the project even without the final definition of the goal.	Hummelbrunner and Jones, 2013, Matos, 2019
Organisational graph	Identification of skills, abilities and experience needed for each project role	Matos, 2019, PM4DEV, 2014
Reserve allocation	Financial resources for the case of budget over-run	Chen and Hartman, 2000, Matos, 2019
Stakeholder analysis	Setting up approach to stakeholders from various cultures and with various expectations	PM4DEV, 2014, Golini et al., 2015, Golini and Landoni, 2014, Matos, 2019
Scope management	Prevention of scope creep	Martens et al., 2013, PM4DEV, 2014

RACI matrix	Clearly set roles and responsibilities	Matos, 2019, PM4DEV, 2014
Work breakdown structure	Simple and easy to understand	Golini et al., 2015, Furumo et al., 2006, Golini and Landoni, 2014, PM4DEV, 2014, Matos, 2019
Critical path method	Possibility to finish a project faster and more effective. Prevention of project delay	Golini et al., 2015, Golini and Landoni, 2014, PM4DEV, 2014, Matos, 2019, Montes-Guerra et al., 2015
Issue log	Problems are solved in the right time by the right people	PM4DEV, 2014, Matos, 2019
Earned value management	Clear visualisation of project performance.	PM4DEV, 2014, Golini and Landoni, 2014, Matos, 2019, Furumo et al., 2006

The ID projects are assigned and financed by the donor state and international agencies; however, their outcomes strongly depend on the implementing organisation, their teams and the way they lead the project (Simovic, 2015). Yet, many NGOs use PM tools only in a short-term to comply with the requirements of the donors during the assignment of the project, but cease to adopt them during the implementation (Golini et al., 2017). However, even a long-term use of the required tools by the implementing agencies will not guarantee a project success if not applied correctly (Lazima and Coyle, 2019, Montes-Guerra et al., 2015).

A research conducted among Portuguese NGOs (Matos, 2019) shows that more than half of the project managers use the tools recommended by the EU Commission (2014) or the Portuguese development agency ex-ICP, but all of them agree that there is a need to adjust these tools to allow more flexibility to transform them for the use in the development sector (Matos, 2019). Suggested solution then might be to assess the PM tools and evaluate which are suitable for the development cooperation and identify if they can influence the project outcome (Montes-Guerra et al., 2015). The set of tools required by the donors should then be adjusted to the characteristics of the ID projects to prevent only their “cosmetic” adoption (Matos, 2019).

4. PROJECT SUCCESS

As the influence of the tools on project success will be discussed below, it is necessary to describe what a project success is. There is an internal and external project success of the ID projects (Golini et al., 2015): the internal success is the classical evaluation of project management, meaning the iron triangle of keeping the project within the budget, time and achieving the goals both in quality and scope (Hermano et al., 2013, Golini et al., 2015, Lazima and Coyle, 2019). These three parameters are interconnected and as an adjustment of one criterion may negatively influence the other two, project managers need to compromise between the individual parts of the iron triangle to reach the expected outcome. (Lazima and Coyle, 2019). Due to high corruption rates in the developing countries, a special focus is paid to the budget criterion (Khang and Moe, 2008).

External success of ID projects is the impact of the project on the project environment, the satisfaction of stakeholder’s expectations and fulfilment of strategic goals. It includes also the long-lasting impact of the project and its outcomes, involvement of stakeholders, takeover of responsibility for the project outcomes by the local community, monitoring and reporting to stakeholders, economic sustainability after the project delivery and the satisfaction of the local community (Hermano et al., 2013, Golini et al., 2015). Therefore, the external success depends on the stakeholders’ point of view (Hermano et al., 2013): for some groups the project can be a success while others can perceive it as a failure (Montes-Guerra et al., 2015). Some literature (Marquez et al., 2010) discusses whether there is some universal set of criteria for the evaluation of external success.

The overall project success may be summarised in the following equation (Boakye, 2015):

$$\text{Project success} = \text{project management success} + \text{project product success.}$$

The measures for establishing, whether the project was successful for both the implementing and donor agency should be clearly defined at the initial phase of the project – nevertheless, based on a research between the Polish NGOs, only a very limited number of them understands the importance of these parameters and only 5% of the approached NGOs had these measures defined (Czahajda, 2019).

The ID projects also lack strong links with the stakeholders and the collection of their feedback for confirmation whether they perceive the projects as a success. The same research (Czahajda, 2019) shows that most of the Polish NGOs assume their projects were implemented to stakeholders’ satisfaction, however, only half of them asks for their feedback.

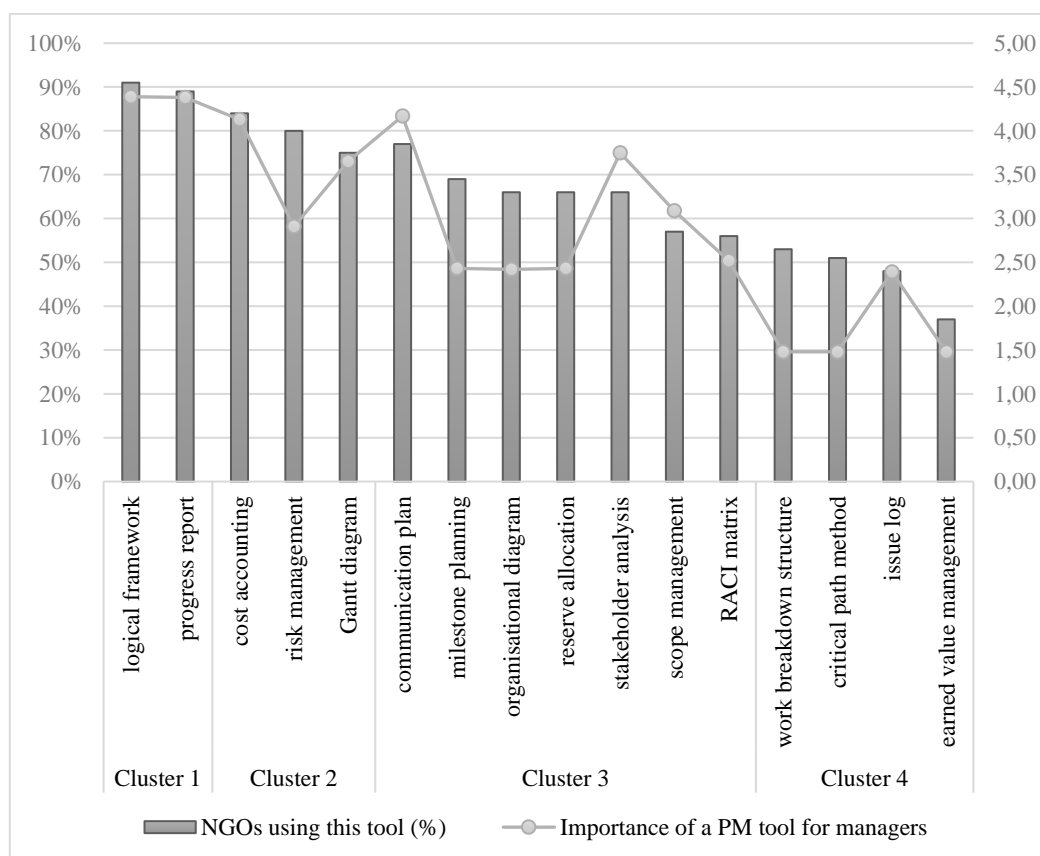
5. APPLICATION OF PROJECT MANAGEMENT TOOLS

Existing research (Golini et al., 2015) on project managers of ID project from various countries and various sectors shows that the NGOs in the development sector can be divided into four groups based on their project management maturity that is the extent in which PM strategies, methodologies, attitudes and decision-making are incorporated into the organisation (Crawford, 2007). The first group adopts only a minimum of project tools, such as logical framework and progress reports as these are required by the donors as a condition for financial support. The second cluster applies a wider variety of tools such as Gantt diagram, cost accounting and risk management, however, more complex tools are still not used. The third cluster then adds RACI matrix, stakeholder analysis and scope management. The most advanced fourth group makes use also of work breakdown structure, issue log or critical path method (Golini et al., 2015, Matos, 2019).

The adoption of PM tools among NGOs in development sector partially correlates with their importance for the project managers: a research on Portuguese NGOs with development projects (Matos, 2019) showed that project managers perceive as the most important tools (measured by Likert scale) a logical framework, progress reports, communication plan and accounting. As the least important tools were identified critical path, earned value management and work breakdown structure.

The comparison of the adoption of PM tools and their importance for project management based on the researches above is presented in Graph 2 below.

Graph 2: Application and importance of project management tools in ID projects
 Source: adjusted, based on Golini et al., 2015, Golini and Landoni, 2013, Matos, 2019



The above mentioned researched included project managers from various countries, other studies (Czahajda, 2019, Keleckeite, 2015, Matos, 2019, Montes-Guerra et al., 2015), however, imply that the application of the project management tools and therefore also the composition of the clusters, can differ across regions.

Similar results to Golini (2015) are presented in a research by Montes-Guerra, De-Miguel, Pérez-Ezcurcio, Gimena Ramos and Díez-Silva (2015) on Spanish development projects that confirms that logical framework and tools impacting budget, monitoring and reporting are mostly used. On the other hand, the critical path method is

used only by a limited number of organisations. The PM tools are not widely applied, but organisations that use some of the tools mentioned in this paper achieve better results (Montes-Guerra et al., 2015). Comparable results are shown in a study on Portuguese project managers (Matos, 2019) which use logical framework, progress reports, cost accounting and Gantt diagram the most, while omitting work breakdown structure, EVM and critical path method.

Different findings come from Poland (Czahajda, 2019) where NGOs active not only in ID sector use mostly only SWOT analysis, budget management and milestone planning. Moreover, other tools are used in Lithuania and Germany: whereas Lithuanian project managers in NGOs apply work breakdown structure, EVM and Risk management (Keleckaite, 2015), German project managers prefer work breakdown structure, Gantt diagram, logical framework and stakeholder analysis (Keleckaite, 2015). The reason might be in different perception of priorities: German feel they need to co-operate closely with stakeholders whilst in Lithuanian project managers are more focused on risks. However, both nationalities perceive time and budget management as their priority (Keleckaite, 2015).

A summary and a comparison of studies on project management tools used by project managers from different countries are presented in Table 2 below. Given the ununified data description in the studies – some calculated in percentages and some only specified in words – I have transformed the findings into four groups in the following way: most common, common, rare and not used. The findings by Golini (2015) were then transformed followingly: most common tools were used by all clusters and by clusters two to four, common were used by clusters three and four and rare were only applied in the fourths cluster. Tools that were not mentioned at all in the studies are left blank.

Table 2: Comparison of PM tools used by NGOs in different countries

Tool	International	Portugal	Poland	Lithania	Germany	Spain
Logical framework	Most common	Most common	rare	common	Most common	Most common
Progress reports	Most common	Most common				Most common
Cost accounting	Most common	Most common	Most common	Most common	Most common	Most common
Risk management	Most common	common	common	common	rare	
Gantt diagram	Most common	Most common	common	rare	Most common	common
Communication plan	common	Most common				
Milestone planning	common	rare	Most common			
Organisational graph	common	common				
Reserve allocation	common					
Stakeholder analysis	common	common	common	rare	Most common	
Scope management	common	Most common				
RACI matrix	common	rare	rare			
Work breakdown structure	rare	Not used	common	Most common	Most common	
Critical path method	rare	Not used	rare	rare	rare	Not used
Issue log	rare					
Earned value management	rare	Not used	rare	common	rare	

The differences in findings of the studies may have two possible explanations. First, the research from Poland, Lithuania and Germany were not primarily focused on ID sector but on NGOs in general, which might influence the comparison. Both studies (Keleckaite, 2015, Czahajda, 2019), however, compared its results with Golini (2015) and his research on ID projects.

Second, one might speculate whether the composition of clusters could depend on cultural and national specifics. Even though Muriithi and Crawford (2003) suggest that project management based on Western culture is not universal for all cultures, further research might be necessary to confirm or reject this hypothesis. Therefore, I will further use the four clusters as defined by Golini et al. (2015) based on project managers from various countries.

6. INFLUENCE OF PM TOOLS TO PROJECT SUCCESS

This section focuses on the influence of the above-mentioned project management tools on the project success, based on the clusters defined by Golini et al. (2015).

The biggest positive impact on the internal success of the project is brought by a combination of PM tools used by the first and second cluster – although the tools in the first group are required by donor, they do not affect the outcome as they are adopted “out of duty” and the managers in the first group often lack wider understanding of the project management practices. This is obtained only in the second cluster with higher project management maturity, which can then enhance the internal project success (Golini et al., 2015).

This finding is also supported by Montes-Guerra, De-Miguel, Pérez-Ezcurcio, Gimena Ramos and Díez-Silva (2015), whose research identified tools with the biggest positive impact including tools focused on time, budget and scope management used within the first and second cluster. The importance of monitoring and reporting was confirmed by Ika (2015) that established a significant impact of monitoring on the internal success of World Bank’s projects. Similar findings were described by Czahajda (2019) as he suggests that the use of cost accounting and tools focused on planning (e.g. milestone planning) can influence the internal project success, however, based on his research, tools from the second cluster do not affect the internal success. He explains it by the fact that Polish NGOs do not use these tools much.

The biggest positive impact on the external success is brought by tools adopted within the third cluster as these tools deal with human resources, i.e. stakeholder analysis, RACI matrix or communication plan. The impact of these tools is supported also by the fact that the organisation has reached a higher project management maturity and they focus not only on short-term project goals, but also on its long-term impact and the satisfaction of stakeholders (Golini et al., 2015)

There is no significant relation between the tools adopted by the fourth cluster and the external or internal success (Golini et al., 2015).

The existing research (Golini et al., Matos, 2019, Montes-Guerra et al., 2015, Czahajda, 2019) shows that even though the adoption of project management tools among NGOs in development sector is not widely spread, their usage can have a positive impact on both internal and external success. It means that if the implementing agencies strive to succeed, they need to apply certain rules and tools in their project management (Keleckaite, 2015).

On the contrary, there is no consensus whether the internal success also leads to external success: Ika et al. (2012) suggests there is no relation, whereas Golini (2015) believes the internal success has a positive impact on the external success.

The existing literature and its findings on the influence of the project management tools on project success are presented in Table 3 below.

Table 3: Influence of PM tools on project success.

	Golini, Kalchschmidt & Landoni (2015)	Montes-Guerra et al. (2015)	Czahajda (2019)	Ika (2015)
Internal project success	Progress reports Logical framework Budget management Gantt diagram Risk management	Tools focused on time Tools focused on budget Tools focused on scope	Budget management Milestone planning	Tools focused on reporting Tools focused on monitoring
External project success	Communication plan Organisational graph Milestone planning Stakeholder analysis Reserves allocation RACI matrix			

7. CONCLUSION

This article focused on project management tools used on ID projects that have a specific character compared to projects in the private sector: they are implemented in a risky environment with the lack of resources and with a great number of stakeholders. The clients of these projects are groups of people from the developing countries

and the project goals are often intangible, hard to measure and prone to political manipulation. Given all these facts, it is not possible to apply project methodologies developed for the private sector on these projects.

Therefore, project management tools were identified from the literature (PM4DEV, 2014, Golini et al. 2015, Matos, 2019, Montes-Guerra et al., 2015, Czahajda, 2019, Ika et al., 2012, Keleckaite, 2015) that are used in the international development sector, which are: logical framework, progress reports, budget management, Gantt diagram, communication plan, milestone planning, organisational graph, reserve allocation, stakeholder analysis, scope management, RACI matrix, work breakdown structure, critical path method, issue log and earned value management. A supporting literature for each tool was then presented and their importance and use by the project managers were then identified. The existence of four clusters was discussed: these clusters are used by the organisations based on their project management maturity. The application of individual tools varies across regions, which might be explained by cultural differences or by a hypothesis that project methodologies are not universally valid or by the fact that some of the studies focused on NGOs from all sectors, not only from international development.

Last but not least, this study discussed the influence of the project management tools on both the internal and external project success. Existing literature (Golini et al. 2015, Matos, 2019, Montes-Guerra et al., 2015, Czahajda, 2019) agrees that the internal project success is mostly influenced by tools focused on budget and time, some authors then add also tools focused on reporting and monitoring (Ika et al., 2012, Golini et al. 2015) or risk analysis (Golini et al. 2015). External project success is much less researched, nevertheless, a study (Golini et al., 2015) shows that the external success is influenced most by the application of a communication plan, organisational graph, milestone planning, stakeholder analysis, reserve allocation and RACI matrix.

The existing research focused only on NGOs in development sector, leaving out the question whether other implementing organisations (suppliers from the private sector or state institutions) adopt a similar set of tools and whether their impact on the project success is comparable to that of NGOs. As a result, it might be possible to suggest a universal set of tools that the donors might require on their projects to ensure their success.

Existing literature (Simovic, 2015, Shin et al., 2017) shows, that implementing organisation from private for-profit sector achieves with the same set of PM tools better results than state institutions. The reason may be that the private-sector organisations are more result-oriented to survive on the market and they are able to react to the complex and unstable environment of the international development quicker thanks to their less-bureaucratic decision making (Simovic, 2015). However, NGOs and state institutions are forced to be more result-oriented and to use the PM tools more diligently recently due to the stricter requirements and the tougher competition (Matos, 2019). To confirm these findings, further research might be necessary.

This article is only the first step to a larger research focused on the requirement for the project management tools used on ID projects by donors to enable them to achieve better results. Next research will evaluate the official development aid of the Czech Republic organised by the Czech development agency (ČRA) and the internal success of their projects. It will also be discussed whether private companies achieve better outcomes than NGOs and state institutions. In the next step, an empirical research will be conducted among the project managers that led ČRA's projects identifying which tools they used and evaluating their influence on the project success. The final part of the research will be a suggestion for ČRA which project tools to require to improve the results of the Czech ID projects.

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Investigation of the Relationship between Work Overload and Organization Identifications of Lecturers and Work-Family Conflict

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Abstract

Working life and family constitute the majority of individuals' lives. In both working life and family life, individuals assume different roles and duties. The demands and needs that occur at the same time can disrupt the work-family balance and thus the work-family conflict can arise. Organizational identification is that employees have a perception of belonging and see themselves as a member of the organization in which they work and it is thought to be beneficial for both the organization and employees. However; it is thought that work overload affects employees negatively. The aim of this study is to investigate the relationship between work overload and organization identifications of lecturers and work-family conflict. This quantitative research was conducted with 84 lecturers working at Erzincan University, in 2019-2020 academic year. For this purpose, the data was collected by conducting a survey study from lecturers working in faculties, colleges and vocational schools. The results suggested that, there was a positive correlation between work overload and work-family conflict. Work overload explained the change in work-family conflict at a rate of 29%. On the other hand; It was found that there was no significant relationship between organizational identification and work-family conflict.

Keywords: Work Overload, Work-Family Conflict, Organizational Identification

University Bridge Companies: Prospective Model of Higher Education Marketing

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Abstract

Higher education becoming more and more demanding faces educational institutions to the great challenges. Higher education providers have to cope with the market rules and involve in the processes.

While choosing the university, degree seekers have number of options throughout the world, which complicates decision making process significantly. Every institution, as well as every potential student have their requirements, but even in this case the options are not limited. Several universities can meet the student requirements and vice versa.

The most salient word in the comparative and international education is globalization, which is the answer on the rapidly changing approaches (Arno, 2009). Globalization and increasing competition were the reasons of empowering Third-party Providers or University Bridge Companies in the USA and afterwards in the UK and Europe, the leading players on the educational market. Creation of the partnership companies soon appeared to be significantly supportive not only for the universities, but also for the students alongside the educational agencies located in different countries throughout the world.

The article focuses on the approaches the Third-party Providers or the University Partnership Companies provide to contribute the field and what benefits can universities have in terms of marketing communication.

Besides, perspectives of the similar business model for Georgia is discussed.

Keywords: globalization, higher education, marketing communication, university partnership, third-party providers, bridge companies

1. INTRODUCTION

In the globalizing era universities have to consider every obstacle to survive. In order to be competitive, financial steadiness is vital, which can be provided in case of internationalization. That is why the universities all over the world try to recruit more international students (Bataille, 2018). The universities in the USA or Europe are mostly either free or in a very low cost, which means international students, who pay almost three-times more fees are extremely desirable.

Universities have started different activities for improving recruitment and increasing the number of international students. Besides spending finances on implementing various ideas trended nowadays in university marketing process, they also build partnerships with other educational providers.

Third-party providers can be considered as the new tool of education internationalization. INTO, Kaplan, Study Group, OnCampus, Navitas, Shorelight, etc. are among those companies providing bridge services between the universities and educational agencies and the degree seekers, in order to make education profitable and accessible for themselves, the universities, agencies and most importantly for the students.

The objective of the current article is to put an accent on the prospective model of university partnership expressed in the form of Third-party Providers and to identify if they are really valuable in terms of study abroad popularization.

To identify the above-mentioned issue, the article is going to answer the following **research questions**:

1. What are the advantages of working with the Third-party Providers or University Partnership Companies rather than the universities directly?
2. In case of direct entry, are Third-party Providers or University Partnership Companies more flexible?
3. Through the observation, do the conditions and support of the University Partnership Companies increase interest and probability of recruitment?
4. Could Georgian Universities have an opportunity to partner with the Third-party Providers?

Hypothesis: University Partnership Companies make enrolment process more flexible for students.

Limitations: There does not exist one agreed name of the companies. Some of them name themselves as University Partnership Companies, others as Third-party Providers, in fact they are Bridge Companies for entering the universities. There is lack of scientific resources in this direction. Accordingly, the reader will meet all the names throughout the text, having the similar meanings.

2. University Partnerships and Internationalization

Digitalization and open relationships among the countries have automatically caused the internationalization. Under the principle that increasing demand increases supply, the organizations try to develop new approaches to be more competitive on the market.

Educational sector is the one, which is always in high demand, that is why global tendencies reflect on it. Because of the internationalization universities try to develop links throughout the world in terms of increasing the number of international students (Woodfield, Middlehurst, & Forland, 2009). The demand on international students is caused by different reasons. One of them is financial profit, since if in the most of the countries, education is either free or very cheap for the local citizens, it costs much for international or oversea students.

The most popular and high-quality education providers in the world are the UK and the USA. They have been the main players on the education market and rule-makers for the rest of the world. According to Woodfield et al. UK universities have played a significant role in delivering national, political, economic and social objectives and continue the tendency till today. During the period of British Empire, British universities contributed to the achievement of mentioned objectives “through training the administrators and the education of indigenous elites” (Woodfield, Middlehurst, & Forland, 2009).

Not only the universities, but in some cases even the governments are involved in the process of internationalization and they implement policies for studying abroad and attract international students (Helms, 2015). Those governments encourage higher educational institutions for collaboration with other ones. Other authors also state,

that “many national governments encourage higher education institutions in their respective countries to develop international strategic partnerships” (Sandstrom & Weimer, 2016). That is the reason why joint degree programs are quite popular nowadays in the process of university branding.

Internationalization of higher education as mentioned above is a new tendency, but adopted and implemented by a lot of universities. After finding out that recruiting international students is crucial, the higher educational institutions have started collaboration, i.e. partnership with the higher educational institutions in different countries. This approach becomes beneficial for both sides, since they recruit international students and make profit of it; for the student, because it is a good opportunity to gain double degree and besides, to get to know different cultures. According to Helms (2015) even in 2011 the research showed that one-third of the institutions taking part in the research had staff or faculty members dedicated for developing international partnerships. Alongside that, large higher educational institutions offered full-time job the persons specialized on partnerships.

The quality of partnerships is mostly dependent on strengthening each other, caring the partner, student and making deserved profit (Canadian International Development Agency, 2007).

Universities all over the world develop different types of partnership, among which dual degree programs in cooperation with the partner universities are quite popular nowadays. But, while the specific universities have to consider different aspects of collaboration: finding partners, preparing agreements, managing cultural differences and expectations, assessing the potential (American Council on Education, 2015), Third-party Providers make processes easier for them. University Partnership Companies take the responsibilities and especially in case of cultural differences they are most effective, because they prepare students to adjust the environment.

3. Benefits of the Third-party Education Providers

Who are the Third-party Providers? Among the tools of university partnerships so called Third-party Providers or University Bridge Companies can be considered as the most sophisticated model, since they take responsibility for not only partnering with the universities, but providing with the education themselves.

“To succeed in the increasingly competitive field of internationalization, higher education institutions often find it advantageous, and at times even necessary, to partner with others” (Sandstrom & Weimer, 2016). Third-party Providers have and continuously develop partnership with different quality universities and help them in recruiting process.

What is the working model of University Partnership Companies? They are independent companies developing partnership with the universities and educational agencies. They have their agreements with the partner universities, which means, that if the requirements of the universities are most frequently demanding, the process becomes more flexible through the Third-party Providers. University Partnership Companies, also known as Third-party Providers create pathway and foundation programs for bachelor students, or pre-masters for postgraduate studies (Bataille, 2018).

Pathway and foundation programs are designed specifically for the international students and their benefits are preparing them for the changing atmosphere. Foundation is the preparatory year for the Bachelor’s degree in the UK. According to the British educational system non-UK students are not always eligible of starting their bachelor studies directly without foundation program. Third-party Providers take responsibility to prepare students in their own centres and guarantee progression in up to five universities.

Recruitment process becomes more flexible and secure when choosing partnership with the Third-party Provider. Recruitment process is swifter, when it could be in case of using only the internal recruitment staff, since the bridge company is itself the interested party (Bataille, 2018).

If the direct university partnerships, mentioned in the previous section of the article, are attractive for the existing students and it can be rarely used for the university branding, Third-party Providers or University Partnership Companies are good tools for marketing as well.

Collaboration and tandem of universities and Third-party Providers, so as the latter are the companies, is “a powerful engine for innovation and economic growth” (Edmondson, Valigra, Kenward, Hudson, & Belfield, 2012). The partnership is successful if it is useful for all the parties. That is why before deciding whether to partner or not, the first step is assessing the core academic strengths of the university and accordingly identify opportunities for the future collaboration. (ibid)

University partnerships provide improvement the overall student experience and increase international students’ access to higher education. Each Third-party Provider plans process individually with the university they want to partner and address the objectives and specific goals of the higher educational institutions.

In the pre-agreement form between INTO university partnerships and George Mason University in the USA we read the words of the university president Angel Cabrera: “The collaboration with INTO will help us deliver on key aspects of the university’s vision and strategic plan, which calls for us to produce 100 000 graduates over the next decade and to expand our reach as a global university” (McDonald & Jenkins, 2013). According to the document, before deciding partnership with INTO the university has conducted discussions inside and considered the ideas of more than 100 faculty, staff members, students and the representatives of INTO University Partnership.

4. Research methods

The importance of the University Bridge Companies can be more or less discussed using secondary data, such as articles, but as mentioned in the beginning the resources are not vast, that is why different methods of investigation were chosen for the particular subject.

Using qualitative method of research, thematic analysis was conducted for answering the research questions. The respondents were selected according to their competence in the field. Three counsellors or educational managers, professionals in this realm, with the long-time background were chosen. They not only closely know the working model of the Third-party Providers, but also have observed the tendencies of recruiting process through the perspective. The respondents were asked the questions shown in the Introduction part. The interviews were paper based, they were explained the reason and purpose of the research, besides the questions were discussed in advance, no additional questions were asked by the respondents in the process of answering questions.

Besides qualitative method, quantitative research was also conducted using online questionnaire with multiple choice options, as well as Likeart scale model. There were 37 respondents. All of them were Georgians studying or have studied at the university preparation programmes through bridge companies. The age was not restricted, since the tendencies were interesting. Most of the respondents (51.4%) were between 18-20 years, 37.8% were in the age category 21-24; 8.1% - 25-29; 2.7% - 30 or more. 56.8% of the participants were females, while 43.2% males correspondingly. One of the remarkable facts is, that most of them (94.6%) had used educational agent or counsellor

to get to the University Bridge Company, the programs chosen by them were as follows: 54.1% - Foundation program; 27% - International Year One; 16.2% direct entry, other little digits for pre-masters` and Graduate diploma

5. The finding of the research and discussion

Using the method of thematic analysis in the research has given the overall impression on the significance of the University Bridge Companies. The answers on the research questions were the following:

Question 1: What are the advantages of working with the Third-party Providers or University Partnership Companies rather than the universities directly?

Respondent 1: Those companies are helpful in every aspect during planning higher education. This way is faster and environment-adopted. Those companies are involved in the teaching process and provide Foundation and Pathway programs themselves, which is very flexible for the universities as well. They are also cost-consuming for the universities.

Respondent 2: The main benefit of being in cooperation with a third-party provider or the university partnership company is a wide range of universities they offer in several countries, the support they provide in terms of admission, visa, marketing activities. They are involved in the process which could have been difficult for the separate higher educational institutions.

Respondent 3: Third-party Providers or University partnership companies provide academic preparation and support to international students who are eager to earn a place at University. These education providers set low entry requirement to international students, so they have more chances to get a place on a bachelor degree with the different previous qualification. What's more, preparation programs are designed for international student so the study process is not stressful or tough and they move softly on their degree studies.

Question 2: In case of direct entry, are Third-party Providers or University Partnership Companies more flexible?

Respondent 1: They are definitely more flexible considering application process and control basis. Some of the procedures can even be avoided through those companies.

Respondent 2: Yes, such companies are flexible and supportive to recruit a student directly on any degree program. They communicate with a university themselves and deal with all the issues related to admission.

Respondent 3: Throughout the preparation programs, education providers provide more support to international students. They also counsel students on their future academic studies and advice which university to choose.

Question 3: Through the observation, do the conditions and support of the University Partnership Companies increase interest and probability of recruitment?

Respondent 1: Can be said that they affect positively the recruitment process. They help the universities in marketing activities, because they are interested as well. Correspondingly, partnership with the Third-party Provider increases probability of recruitment.

Respondent 2: An Interest and a number of recruited students depend on different factors (e.g. university rankings, tuition and living costs, scholarships etc.). However, such companies promote their partner universities, which of course can have a positive outcome for the university.

Respondent 3: The tendency shows that the preparation programs delivered by Education provides are getting more and more popular in recent years, mainly because of the flexibility and support they get from them.

Question 4: Could Georgian Universities have an opportunity to partner with the University Partnership Universities?

Respondent 1: In case Georgian Universities are very prestigious, there are increasing and sufficient numbers of interested students, they have an opportunity. Besides living conditions, country atmosphere should be attractive. Visa process transparency is also very important aspect.

Respondent 2: Yes, Georgian universities can have a chance of partnering with such companies, though the possibility of this partnership will depend of various factors, aims and expectations for both sides.

Respondent 3: Considering the popularization of the country in the world, Georgian universities can have an opportunity in case they offer effective environment and conditions.

The research shows, that partnering with the Third-party Providers is more flexible and profitable for the universities, than direct partnership. Besides, in case of having partnership with the Third-party Providers universities consume effort and finances for the marketing activities, since those companies are interested in promoting their partners themselves.

The results also show that even the universities of the developing countries have opportunities for partnering with University Bridge Companies either in the aspect of preparation for the university entry, or at least in direct entry. Achieving this objective can be real in case of active campaigns, but in this case involvement of governmental authorities is also crucial for turning the country into desirable destination to study in.

As for the outcome of the quantitative method, as mentioned above, most of the respondents used the partnership companies for foundation programme – 54.1%, the second most popular was International Year One Programme – 27%. In response to the answer “Was the enrolment process flexible?” most of the participants (91.9%) indicated that, using Bridge Company made enrolment process easier, because of its mild requirements (Fig.1).

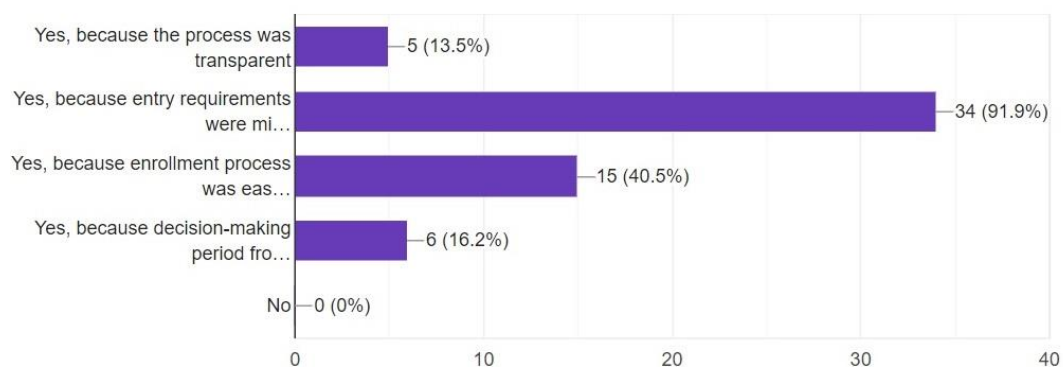


Fig. 1. Enrollment process flexibility

The flexibility of enrolment process appeared to be of great importance for most of the respondents in decision-making process. 86.5% has positively answered to the questions: “Did the flexibility of enrolment process affect on your decision?”

54.1% of the participants also consider, that the main dignity of the University Partnership Companies is that they are money and time-consuming for the students eager to enrol.

As for the role of the University Bridge Companies in the future of the university partnerships, the respondents were offered the scale, where they could submit their ideas. The statement was the following: “University Partnership

Companies can be described as the future of the university partnerships”. The scale consisted of 7 digits, where 1 corresponded to – Strongly disagree, 2 – Agree, 3 – Somewhat Agree, 4 – Neither Agree nor Disagree, 5 – Somewhat Agree, 6 – Agree, 7 - Strongly Agree. According to the results most of the participants agreed, there were no disagreements (Fig 2).

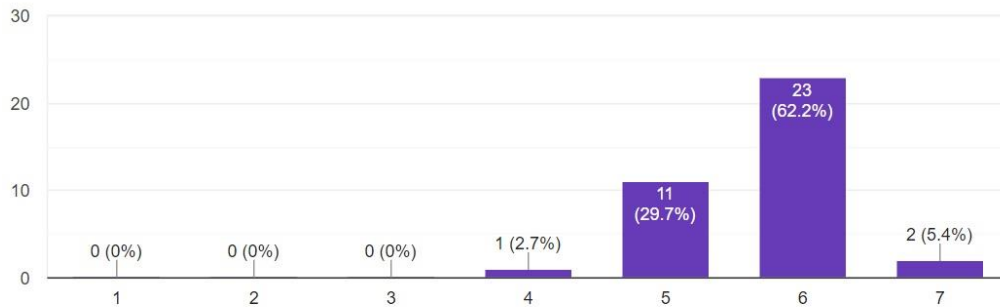


Fig. 1. UPCs as the future of university partnerships

Conclusion

Third-party Providers, also mentioned as the University Partnership Companies are the new options of university partnership. Besides direct partnership a lot of universities choose to partner with the Third-party Providers, because in case of recruiting international students those companies are very flexible, they can decrease problems in attracting international students. The fact, that those companies can prepare students for future studies and the environment also consumes effort from the side of the universities and to some extent gives them guarantee, that the students recruited by the Third-party Providers, will be resisted for further studies.

Besides benefits of the University Bridge Companies, there are some other factors that should be considered. Some universities need to position themselves on the special markets for financial benefits, that is why they have to consider their needs and act accordingly. The topic is quite actual and needs further research, which will enable different universities and countries to find new opportunities in the globalizing era.

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The Matrix of Evolutionary Marketing with the Revolutionary Innovations (EMRI) as the 21st Century Strategy of Company

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Abstract

The article is about to recognize the relevance of Evolutionary Marketing with some Revolutionary supplements as a main way to achieve high competitiveness among rivals. When innovative company, Amazon launched a Dash Smart Shelf for businesses that automatically restocks supplies, was it Evolutionary step? Yes, it was, but companies need Revolutionary Innovations creating totally new categories – like a smartphone was created. In 1992, Smartphone technology was invented by IBM because of Chips and wireless technology became so small and microscopic that they could be ground to do something like a hand-devise. The Smart ideas flocked from many different sides, especially from technology and marketing, to IBM, appeared in right time to right place and boosted. Time of Marketing Evolution cannot be stopped, now people already check the another process, time of Web Browsing (Mittal & Mattela, 2018) and here we see Evolutionary process of belonging to the goals of Marketing and this is the way of strategic competitiveness of any entity, especially in 21st century, where we develop Knowledge Economy and Mega Marketing. Having used Philosophy of Science into Marketing, researcher can observe more clarity of marketing idea (Crittenden, et al, 2013). Hence we understand that any Science is rich only because it is skeptical to itself too (Hunt, 1983) we undertake experimental marketing research for the article to check companies following the path of Marketing Evolution and through qualitative marketing study analyzed with business leaders, to know how effective the Evolution Marketing can be. Also researchers analyzed revolutionary marketing and came to opinion that the Evolution in Marketing is effective only with revolutionary steps and vice versa.

In the study the Delphi marketing survey techniques were used. The literature analyzes and the interviews of business leaders allowed us to establish some new vision of effective business strategy. The findings of this marketing research allowed us to develop special Matrix of the Evolutionary Marketing & Revolutionary Innovations (EMRI) what can be used by companies and their leaders to reshape their marketing strategy and be sustainable in their success.

Keywords: evolution, revolution, strategic marketing, innovations

1. INTRODUCTION

The history of human civilization contains some period of evolution skyrocketed by revolutionary ideas. The same happens with business, war, art, politics, literature and medicine. Almost all must be boosted by some aggressive internal and external initiative – challenging delivery of perceptual ideas making them to bring solutions to meet peoples current and future requirements. Myopia oriented marketers are aware only of the needs of their current customers (Levitt, 1960) when great minds think about solutions of people specific to industries and regions but often find it difficult to identify to direct and tangible positive outcomes.

To know what revolutionary ideas are and how they change either the world or the industry we can bring examples from economic thought: famous Economist Paul Romer, several years ago argued that the principal constraint to raising living standards in our time will not come from scarce resources or limited technologies but it will come from clever people's efforts to discover, study and implement new rules (Romer, 2010).

2. Theory of Evolutionary and Revolutionary Marketing

All entities not to be obsolete must learn the lesson of Evolution. From the study of Evolution process, companies can develop Evolution Marketing. But is the Evolution Marketing Enough? In our world everything is changing and the skyrocketing speed of modernization is demanded by customer who already smelled no limitation either of possible satisfaction or solutions for her/his own needs or problems. Amazon launches a Dash Smart Shelf for businesses that automatically restocks supplies. This was evolutionary step. As history of business shows the Revolutionary Innovations creating totally new categories – like a smartphone, is needed. In 1992, Smartphone technology was invented by IBM. Chips and wireless technology became so small and microscopic that they could be ground to do something like a hand-devised, what was brilliantly realized by IBM Engineer Canova. This history teaches us that even Smartphone was implemented on the verge of Evolution Marketing. The Smart ideas flocked from many different sides, especially from technology and marketing, to IBM, appeared in right time to right place and boosted. Time of Marketing Evolution cannot be stopped, now people already check the another process, time of Web Browsing (Mittal & Mattela, 2018) and here we see Evolutionary process of belonging to the goals of Marketing and this is the way of strategic competitiveness of any entity, especially in 21st century, where we develop Knowledge Economy and Mega Marketing. Having used Philosophy of Science into Marketing, researcher can observe more clarity of marketing idea (Crittenden, et al, 2013). Hence we understand that any Science is rich only because it is skeptical to itself too (Hunt, 1983) we undertake experimental marketing research for the article to check companies following the path of Marketing Evolution and through qualitative marketing study analyzed with business leaders what basics afford them to revolutionize their marketing.

Evolutionary marketing tries to be not only effective but to have some permanent relations with customers and not only. The Evolutionary marketing means a lot, first it has no frames and that's why it is difficult to define. Unframed things impossible to be framed. This type of marketing means unstoppable Evolutionary Process of Value Exchange between company and customers. Companies well managed by Evolutionary Marketing making products and services done by customers but materialized by company. There are many ways to follow the time by good company managed by Evolutionary Marketers. The Evolutionary marketing companies must have the next marketing instruments in their equipment:

- Exploratory, descriptive and causal Marketing research planned timely well to update company's knowledge about the customers and markets;
- Marketing intelligence;
- Crowdsourcing;
- Customer Relation Management CRM;
- Six Sigma Marketing Management;
- The Societal Marketing;
- All digital marketing portfolio contained from Search Engine Marketing, Programmatic marketing concept and coming digital innovations linked to artificial intelligence.

From Evolutionary Marketing companies can receive:

- Sustainability on the market;
- Understanding and trust from customers;
- Appreciation from the global and local publics;
- High image and strong reputation among customers.

3. Method of the research

The team of researchers from International Black Sea University and the Georgian – European marketing Association during 2018-2019 years analyzed 165 small and medium businesses, audited their marketing strategies and strategic changes in whole. At the stage of Delphi survey, the researchers selected business leaders and established special questionnaire for them containing very relevant questions about business histories to business leader’s views to the ways of company’s sustainability and effectiveness on the market in the period of economic cycles. At the end of first stage of Delphi Survey respondents having answered questions sent them back. In second stage of Delphi Survey, all analyzed answers once again were sent back to respondents, with all possible answers from all participants with chance to change own answers. For example, Toyota Managers could once again assess their own answers comparing them to answers of the colleagues from Volkswagen. So Toyota managers could change some answers, being affected and influenced by the answers of all other respondents of this interesting survey.

From first stage of Delphi Survey researchers having confirmed their hypotheses that good marketing in company meant evolutionary in second stage understood that even this was not enough for sustainability.

4. Findings – the Matrix of EMRI and its strategies

The researchers found that, companies being evolutionary with some portion of revolutionary innovations have been attracting more appreciation from customers than only evolutionary companies without revolutionary innovations. On this finding the Matrix of EMRI was established.

The Evolutionary Marketing with Revolutionary Innovations (EMRI) can be new strategic model for the company ether are or going to be global/local market leader.

Table 1. Matrix of EMRI

Arrangement of Strategies to use	Local markets (<i>t</i>)	Global Markets (<i>T</i>)
Evolutionary Marketing with Revolutionary innovations (EMRI)	EMRI2	EMRI1
Marketing Revolutionary Innovations (MRI)	MRI2	MRI1
Strategy of Evolutionary Marketing (EM)	EM2	EM1

4.1. Evolutionary strategy with revolutionary innovations (EMRI)

marketing sometimes is compared to war and its strategies and tactics are very popular to win the marketing battle. The battle is possible to win but it is not enough. Someone can win the battle but loose the war. Revolutionary war tactics, mass involvement of national feelings, combined with new role of artillery and cavalry, units attacking into columns, tactical unit’s big battalions, all these we associate to Napoleon, whose war machine was based on evolutionary developments of war with Revolutionary new strategies and tactics can be example for the new marketing strategy called as Evolutionary Marketing with the Revolutionary Innovations EMRI 1. For Global Markets this strategy has all important guarantees to be victorious. By the number 1 in EMRI Matrix strategy of evolution is emphasized with sequencing revolutionary implications. As we see Apple computers are some example of EMRI 1. With number 2 we emphasize the situation when the firm has its evolutionary marketing and this organization does also revolutionary steps. But this organization acts still only locally. It can be some additional explanations why such organizations are not global marketers. May some cultural frames don’t allow them to cross the boundaries like: traditional product for traditional markets, unique culture in some region, what cannot afford this culture to go globally. Recall the example of Sushi many decades ago. Sushi was well known only in its country and culture. Until this culture went global Sushi was only local product. The same can be said about the company doing EMRI in local ground. If culture allows to grow it will go global if culture stays behind some boundaries it is no chance to globalize. The good Example of EMRI1 is delivery by Drones from Amazon Company in American market.

4.2. Marketing Revolutionary Innovations (MRI)

Revolutionary innovations marketing or revolutionary marketing can be understood as the course of the company to develop not only new innovative product or service but new category. this is firm’s strategy to innovate using good

marketing skills to implement the innovative product and service well changing the market and creating new solution of existing demand or problem. MRI is divided into MRI 1 and MRI 2. The MRI 1 is company's global market revolutionary innovation. If this act is not supported by other marketing concepts, company can stay alone with its revolutionary marketing innovations and die soon. There are many example in the market when companies not supported by Evolutionary Marketing died after great and effective marketing innovation. Company Nokia was well in revolutionary marketing but it missed other opportunities in the global market, what could be noted if Nokia had well organized Evolutionary Marketing Process.

4.3. The Evolutionary Marketing (EM)

There are many ways to follow the time by good company managed by evolutionary marketers. Companies listening and following the process of marketing Evolution have developed marketing research and intelligence, crowdsourcing, six sigma and digital marketing will be sustainable on the market, but they will not be examples of Marketing Leadership.

5. Conclusion

In our marketing world either the term -Evolutionary Marketing or the term Revolutionary Marketing will be well to be implemented. Also it is better to divide marketing process of the company into Evolutionary marketing and Revolutionary Marketing strategies. In some advanced corporation's special departments for Evolutionary marketing with main goal to evolution can be established along with another departments and units. In companies having fitted the role of the leaders of the market Revolutionary innovations or revolutionary Marketing are urgent.

It is recommended to develop marketing instruments of Evolution marketing, like a Marketing research and intelligence tools with Neuro-marketing, Crowdsourcing and Customer relation management, with some new models of Community Branding and Cultural Brand Development, all these instruments well packed with Social and Societal marketing concepts can allow firm not to miss any change either on the market or in the mind of customer.

When firm realizes that it has internal energy, human capital oriented sources and financial power to innovate, then firm can develop Revolutionary Marketing concept to establish not only new, high quality goods and services but to create new category, new needs and new demands, supporting the creation of new customer. To maintain its success and grow fast, sustainably, company must find its formula to Evolutionary – Revolutionary Marketing approaches. For example, according to some relevant studies, benchmarking has shown that successful companies, which effectively implement Six Sigma tools, making systematic innovation: Generate best ideas linked with new opportunities on the market (Creveling, et al, 2006).

With well-planned Evolutionary Marketing Strategy Company achieves sustainability but using Revolutionary Marketing in the same time with Evolutionary development, company turns into Leader of the market and attracts not only attention but long term success and grow.

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Impact of Leadership Role on the Organizational Performance in the Automotive Industry

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Abstract

Currently, dynamic developments and changes are characterizing automotive markets worldwide. Therefore, in today's economical world, organizational survival is essential. Internationally and globally, the complexity of economy is rising rapidly due to a multitude of interconnections. Leadership is being challenge by the need to act quickly and to inspire and motivate its teams to generate and foster beneficial behaviors and strategies.

New leadership competences are strongly needed for strategical and operational change within the automotive industries. Digitization, new technologies, more demanding customers and dynamic markets question traditional business models and demand for a high degree of innovation and agility.

The fundamental paradigm shift of the existing business models have a need for a qualitative framework of leadership, which will be focused on in this research project. The correlation of organizational structure and decision making will be considered in regard of the consequences of organizational performance as well.

Keywords: Leadership, decision-making, organizational structure, performance, cultures

1. INTRODUCTION AND ACTUALLITY OF THE TOPIC

Currently, dynamic developments and changes are characterizing automotive markets worldwide. Therefore, in today's economical world, organisational survival is essential. Internationally and globally, the complexity of economy is rising rapidly due to a multitude of interconnections. Leadership is being challenge by the need to act quickly and to inspire and motivate its teams to generate and foster beneficial behaviours and strategies. Based on the fast rhythms of the organisational environment, technological discontinuity, and reduced lifetime circles of changing economic competition, the transition from management to leadership led to new organisational developments, modifying behaviours and expectations. Corporate innovative ability is a central factor of success for long-term positive organisational development.¹

According to Hambrick and Mason, the strategic situation of decision-making provides stimuli that undergo filtering processes and narrows the cognitive bases to direct attention which is more likely to be in line with their preferences and past experiences.² Cannella and Holcomb underline that the model of upper echelons is of a multi-level nature because it describes the decision-making processes of groups and individuals.³ However, the authors criticise it as being an incongruent application and a mix of different levels of theory, measurement, and analysis.⁴ Moreover, Peterson, Martorana, Smith, and Owens argue that there is a lack of specification as to how a leaders

¹ cf. Klein (2002), p. VII.

² cf. Hambrick & Mason (1984), p. 195.

³ cf. Hambrick & Mason (1984), p. 203.

⁴ cf. Hambrick & Mason (1984), p. 204.

achieves a decision.⁵ Although the impact of leadership decisions to an organisation’s success have been a central focus in existing research, the characteristics of top managers are often neglected, strategically and contractually.⁶

According to a study of PWC, in the future, cars are electrified, autonomous, shared, connected and yearly updated.⁷ Moreover, they will emit less exhaust fumes and noise into the environment due to electrification, and they will take up less personal time and space as a result of autonomous movement. Moreover, no driving licence will be accessible, and cars will be more affordable because in the future, they must not be bought but can instead it will be possible to pay small amounts for limited use.⁸ An unprecedented change is facing the automotive sector and consequently, far-reaching effects are expected to impact the industry and users.

Squeezed by intense competition - increasingly from new competitors in low-cost countries - as well as industry overcapacity, high labour costs in mature markets and customer resistance to price increases, automotive companies must establish sustainable and flexible cost structures, driving them to relocate global sourcing to “low-cost” regions, Asia, in particular. Forty-four percent of executives cited locating global sourcing to low-cost countries as a top priority for their organisations. In addition, as they establish optimal global manufacturing capabilities, automotive companies must also refine their product development strategies to respond to the demands of these emerging markets. To sum up, leaders of the automotive industries are affected from environment and the impact of the whole value chain, which is shown in the following illustration:

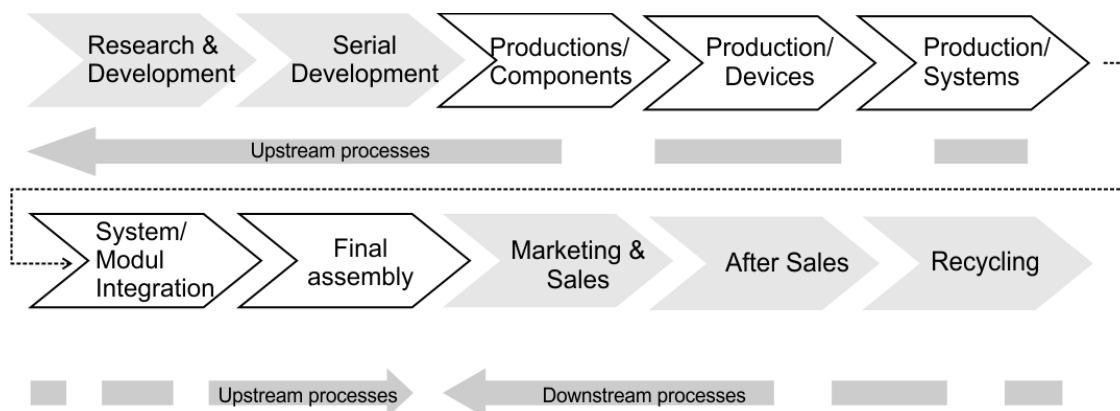


Fig. 1. Typical value chain of automotive industries⁹

Car manufacturers are faced with increasing urbanisation and expanding public transportation, they are also faced with the dilemma of how best to design their cars, should they connect to electric vehicles with a technology push or market pull strategies, also should OEMs produce batteries for e-cars themselves. One further decision is whether carmakers should sell their products directly to customers, how should they recapture their technology chain, and to what extent should they integrate suppliers.¹⁰

New leadership competences are strongly needed for strategical and operational change within the automotive industries. Digitisation, new technologies, more demanding customers and dynamic markets question traditional business models and demand for a high degree of innovation and agility.

The fundamental paradigm shift of the existing business models have a need for a qualitative framework of leadership, which will be focused on in this thesis.

⁵ cf. Peterson et al. (2003), p. 795.

⁶ cf. Schrader (1995), pp. 2 ff.

⁷ cf. PWC (2018), p. 6.

⁸ cf. PWC (2018), p. 6.

⁹ Source: own illustration based on Ika (2014), p. 19.

¹⁰ cf. Deloitte (2017), p. 8.

2. PURPOSE

Leadership within the automotive industry is facing complex changes and must react with fast, future-oriented decision-making based on sustainability. Therefore, leadership must combine organisational performance with sustainability, which demands the formation of new leadership methods.

3. LITERATURE REVIEW

In research and in practice, new leadership models and roles are deeply discussed, as there is a demand for leaders and new methods to manage the huge paradigm change in the automotive industries. In the following table, studies and research articles are presented, dealing with these focuses.

Table 1. Studies and research about leadership, organizational structure, success in future¹¹

<i>Year</i>	<i>Author(s)</i>	<i>Study/Title</i>
2009	Deloitte	A new era. Accelerating toward 2020 – An automotive industry transformed
2009	Muller, M. L.	Current automotive industry: how one leader practices CI
2009	Omar, M.; Mears, L.; Kurfess, T. Kiggans, R.	Organizational learning in automotive manufacturing: a strategic choice
2011	Golinska, P. & Kawa, A.	Remanufacturing in automotive industry: Challenges and limitations
2013	Stocchetti, A.; Trombini, G. & Zirpoli, F.	Automotive in transition. Challenges for strategy and policy
2014	Deloitte University Press	3D opportunity in the automotive industry. Additive manufacturing hits the road
2014	Dieterich, J.	A quantitative analysis of Consumer Behaviour in relation to Electronic Cars resulting in a new Green Marketing approach for the German car industry
2015	Sandu, M. C.	Reputation – an Important Element for Automotive Industry Profit?
2015	SpencerStuart	How the auto industry can secure the right blend of talent to succeed in the era of the connected car
2016	World Economic Forum	Digital Transformation of Industries Automotive industry
2017	PWC	Five trends transforming the Automotive Industry
2017	Vaz, C. R.; Rauen, T. R. S.; Lezana, A. G. R.	Sustainability and Innovation in the Automotive Sector: A Structured Content Analysis
2018	Roland Berger	Global Supplier Study 2018. Transformation in light of automotive disruption.
2018	Saberi, B.	The role of the automobile industry in the economy of developed countries
2019	PWC	Indian automotive sector: Creating future-ready organisations
2019	McKinsey	Race 2050 – A vision for the European Automotive Industry
2019	Capgemini	Accelerating automotive’s AI transformation: How driving AI enterprise-wide can turbo-charge organizational value

Advances in additive manufacturing, digitisation, changing consumer demand and environmental sustainability open new doors for the automotive industries. These new doors are also connected with risks such as huge investments in fast changing markets. Moreover, inside organisations numerous changes are occurring, with professional workers being replaced with robotics, and an increasing number of productions being out sourced. Overall, consumers and stakeholders are clairaudient for all organisational changes due to social media and networks. These

¹¹ Source: own illustration

are only a short description of the managerial challenges facing leaders both now and in the future. Organisational development can be steered expeditionary, systemically, classically or straight proportionally in times of difficult changes.¹²

4. RESEARCH DESIGN

Research methodology is based on the strategy to answer the predefined research questions and the hypothesis¹³ and it is divided into two main aspects: Firstly, a literature review is conducted focusing on managerial cognition, culture, organisation, performance, and organisational performance. Secondly, based on the theoretical results an empirical research approach is implemented. The empirical approach includes a questionnaire directed to managers and qualified employees of manufacturers and subcontractors of the automotive industries. Moreover, relevant research results of other business segments are used for verification.

The research design is grounded on critical rationalism, where the deducted framework is tested in an empirical environment. According to Popper, we actively attempt and work out methods of trial and error and this is the only method we have to use.¹⁴

5. RELEVANCE

Environmental prospects influence organisations' behaviour and "*...the formal structures of many organisations in post-industrial society [...] dramatically reflects the myths of their institutional environments instead of the demands of their works activities*", as noted by Meyer and Rowan.¹⁵ Organisations are systems of individuals which operate and act to achieve formulated targets.¹⁶ Petzold underlines that, organisations are individual networks and added that organisations are groups or social entities, based on cooperation frameworks, which are aimed at reaching long-term goals to achieve organisational survival.¹⁷ Therefore, organisations are patterns of relationships with common goals, and the organisational structure divides, organises, and coordinates organisational activities.¹⁸ (Drumaux, 2007, p. 4). Furthermore, automotive industries act internationally and globally leaders and their decision-making is connected with intercultural aspects. The culture of the organisation itself and the culture of all related market members.

This thesis analyses which factors and organisational structures influence leaders in their decision making and which leadership roles and methods are appropriate to raise organisational performance and effectiveness. The following presented cause-effect-model describes the focus of this thesis.

¹² cf. Heimerl & Sichler (2012), p. 266.

¹³ cf. Maylor & Blackmon (2005), pp. 26-27.

¹⁴ cf. Popper (1995), p. 130.

¹⁵ cf. Meyer & Rowan (1977), p. 341.

¹⁶ cf. Schimak (2001), p. 200.

¹⁷ cf. Petzold (1998), p. 399.

¹⁸ cf. Drumaux (2007), p. 4.

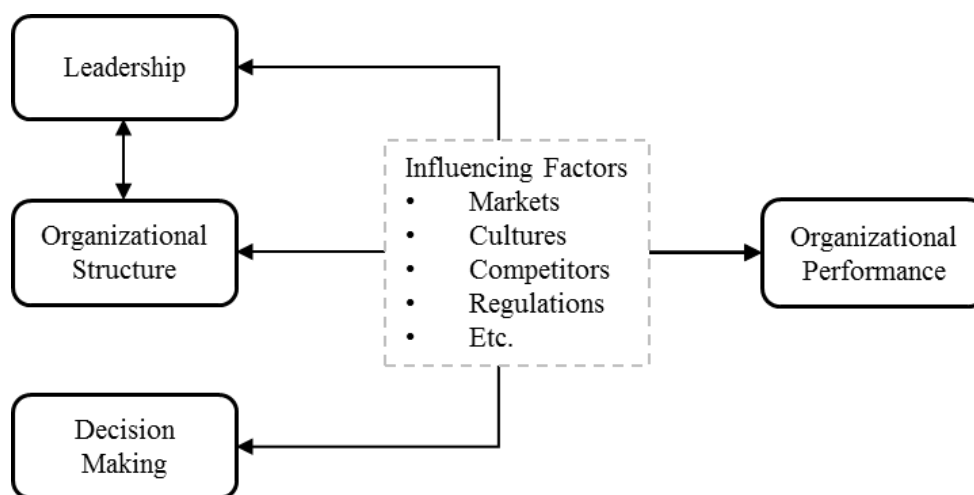


Fig. 2. Leadership, Organisational structure, influencing factors and organisational performance¹⁹

6. RESEARCH OBJECTIVES

6.1. Research Questions

Due to the topic relevance section, the following research questions should be answered with this thesis:

1. Research question 1: What factors influence leadership decision-making?
2. Research question 2: Which leadership roles are related to the dramatic and complex changes in the automotive industries?
3. Research question 3: How should leadership respond to intercultural, technological and environmental changes to achieve a better organisational performance?

6.2. Hypotheses

Based on the theoretical implication and the worked-out research questions the following hypotheses are formulated.

The hypothesis H0 is the main hypotheses and due to the fact that external and internal factors influence leadership roles and decision making the questions occurs:

- H0: Leadership role and decision making is influenced from the cognition of the manager more from external than internal factors.
- Hypotheses H1 and H2 are sub-hypotheses. They connect leadership role and decision making due to the organisational performance.
- H1: High performance organisations are better prepared for disruptive changes and therefore react faster than low performance organisations.
- The hypothesis 2 is a control hypothesis to H1 and H0:
- H2: Managers of low-performance organisations do have a different cognition about success in contrast to managers of high-performance organisations, and therefore they do not push change.

¹⁹ Source: own illustration

7. CONTENT AND STRUCTURE OF THE THESIS

In the first chapter, the problem statement will be introduced and the relevance of the thesis presented. Following this, the research questions and hypotheses are developed. Based on research questions and hypotheses, the methods to achieve reliable results are presented and discussed.

The second chapter comprises the theoretical part of this thesis. First of all, organisational theories are analysed and discussed. Neo-institutionalism and organisations, organisational structures and organisational cultures will be examined, followed by an analysis and discussion of leadership theories, especially, to what extent they are related to the actual challenges in the automotive industries. Then, decision making is investigated to reveal what theories, factors, methods, and measurements regarding strategical issues of the automotive industries are essential. Finally, performance is analytically explored, especially what theories, factors and measurements are appropriate in the automotive industries. At the end of the theoretical part the results are summarised critically.

Chapter three represents the empirical part of the thesis, where managers and employees of the automotive sector are interviewed. At first, the theoretical framework of the investigation is developed. Based on theoretical frames, the research question and hypotheses are included in the questionnaire. Then, the methods of investigation are presented and, finally the results are compared with other relevant study results and discussed.

In chapter four, based on theoretical and empirical knowledge, the research questions are answered, and the hypotheses are falsified.

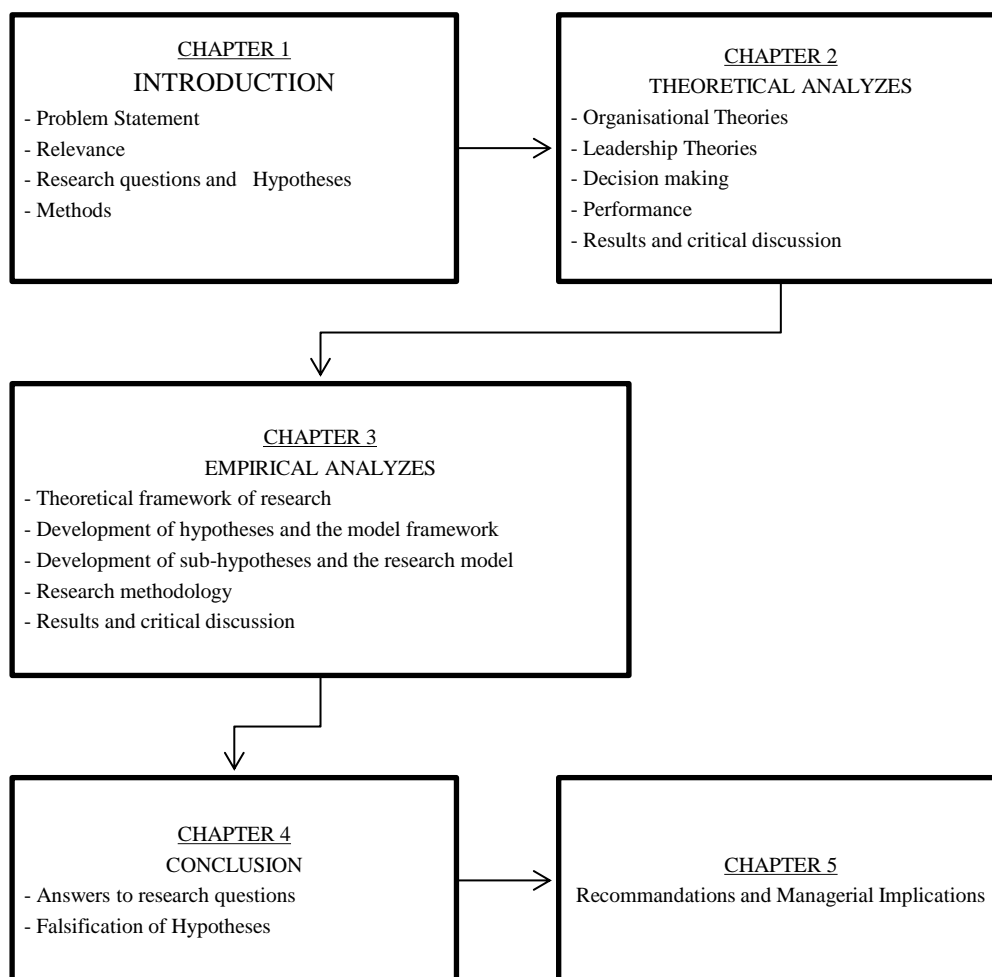


Fig 3. Structure of the thesis²⁰

²⁰ Source: own illustration

8. CONCLUSION

Based on the theoretical literature review and in addition to the empiric results of the questionnaire, the presented research questions and hypotheses are answered. The impact of this thesis utilises theoretical and empirical results to formulate and presents leadership recommended courses of action for practice and enhances actual theoretical knowledge.

A correctional framework of leadership culture, organizational structure in interaction with decision making in interdisciplinary organizational communities support the transition of the big five change challenges. Also the emission affairs from Volkswagen and other German automotive companies underline the need of a paradigm change in their enterprise operations to be able to manage the future challenges of individual mobility.

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Boosting Customer Communication through Digitization

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Abstract

Staying relevant in digital era is extremely meaningful for all companies. Additionally, companies have to shift their business model in digital, accordingly they transform their offline services into online. Based on statista.com “In 2019 the number of internet users worldwide was 4.13 billion, up from 3.92 billion in the previous year”. (Clement, 2020) Correspondingly, customers became internet users. Online shopping and online activities through online digital communicational channels rapidly increase. Communication between customer and company plays a fundamental role in the process of purchasing. And now, the process begins with the customer and not the product. As a result of this, companies have to implement a new way of customer communication strategy through digitization. Different online digital communicational channels give companies’ ability to increase customer engagement. Company should know on which platform how to act correctly. Digital mind is the key element during the customer communication strategy planning. Nowadays user friendly, truly relevant, creative, real and personalized content captures customers’ minds.

Keywords: Digital, Digitization; Digital Transformation; Digital Marketing; Content Marketing; Customer Communication;

1. INTRODUCTION

Effective communication with the customer plays a fundamental role while the purchasing process. To reach out to potential customers, and at the same time, to build and maintain strong relationships with them companies need to stay relevant and operate at a right place at the cutting edge of business. According to Statista in 2019, the number of internet users worldwide was 4.13 billion, up from 3.92 billion in the previous year. And 2.5 billion monthly active Facebook users. Based on the statistics, nowadays Facebook is the most popular social network. Correspondingly, companies shift their business model into digital.

Nowadays different online digital channels exist, such as Facebook, Instagram, Twitter, YouTube, TikTok, Snapchat, LinkedIn and so on. Different online digital communicational channels need distinctive personalized and customer focused content. With the relevant content marketing customer engagement increases.

Comparing current time to past, communication between company and customer radically changed. More than that, changed the customer experience. Now customers instead to call to the company, try to interact with companies through Facebook messenger or chatbots build in websites. As the digital world became faster, smarter and easier, as so called “network society” expect from the companies’ relevant quick response.

Before purchasing customers search information about the product or service through the internet. After purchasing customers share their thoughts and experiences toward the product or service through the different online digital channels. Understanding digital marketing and digital consumer experience is the key point to increase a customer engagement.

In fact, it is not enough to have a high-quality product or successful historical years of business experience to be the winner in digital era. Developing an emotional connection between consumers and brands, is the essential part in the competitive digital business environment.

The goal of this paper is to show the effectiveness of customer communication through digitization.

Research Objectives - what kind of content marketing captures customer's mind.

Research Methods – to be suitable and satisfactory results, qualitative and quantitative approach will be conducted during the research.

2. Literature Review

“The digital consumer is now King”. (David Nicholas; Ian Rowlands;, 2008)

Authors of the book titled as “Digital Consumers: Reshaping the information Professions” describes users, customer, client or e-shopper as the “King”. Digital consumer philosophy is a fundamental aspect to have a successful purchasing process with consumer.

“The world of digital media is changing at a phenomenal pace. Its constantly evolving technologies, and the way people are using them, are transforming not just how we access our information, but how we interact and communicate with one another on a global scale. It's also changing the way we choose and buy our products and services”. (Damian Ryan; Calvin Jones;, 2009)

Brand communication strategies dramatically changed. For engaging more customers digital marketing tools are essential nowadays. Traditional marketing tools are not enough now for boosting consumer communication.

According to the study “Marketing and Social Media: Benefits, and Ways Forward” by Maria Teresa Pinheiro Melo Borges Tiago and José Manuel Cristovão Veríssimo, firms face internal and external pressures to adopt a digital presence in social media platforms. Survey was conducted in July and August of 2011. 2000 marketing managers participated in the survey in Portugal and one hundred and seventy questionnaires were fulfilled.

“Four levels of digital engagement evolution and propose a new digital pattern matrix based on benefit perception and digital marketing usage. To successfully explore digital marketing and social media, marketers need to adopt marketing strategies to engage in relationship-based interactions with their customers. To meet this challenge, firms should complement their traditional Web practices with online social networking”. (Maria Teresa Pinheiro Melo Borges Tiago; José Manuel Cristovão Veríssimo;, 2013)

Real customer communications moved into the virtual world. This movement into the digital world gives a lot of possibilities to the brands to spread their marketing activities through the different online digital channels.

Contrarily, based on the study “Impact of Online Digital Communication on Customer Buying Decision” conducted by Rohan Samsona , Dr. Mita Mehtab , and Prof. Arti Chandanic in India, showed that most of people find online digital communication tools as reliable and useful, but the television advertising and word of mouth were the most essential channels that pushed potential customers to the showroom. 100 respondents participated in the survey.

“The use of internet by the average Indian is growing exponentially each year and use of online digital communication for marketing is "the" way forward and comes with huge number of benefits like Utilizing the Internet as a marketing tool allows offline dealers access to savvy, serious car shoppers – not just a passive audience watching a television commercial or listening to a radio ad. Online marketing is more measurable (through web analytics such as click counts, visitor reports, etc.) than traditional media, so there is a higher expectation of meeting performance goals and delivering ROI”. (Rohan Samsona ; Dr. Mita Mehtab ; Prof. Arti Chandanic;, 2014)

The study showed that online digital communication is effective, influential and powerful medium in India, but its reach is not as widespread as that of Television. That might be caused by the preliminary stages of digital transformation in India.

The world today dramatically increasingly digital. People all time are connected to internet. This movement into digital increases new opportunities for companies to create a new effective digital customer communication strategy. According to the study Customer Communications Management in the New Digital Era by Simon Hudson, Martin S. Roth, and Thomas J. Madden, was summarized digital marketing communications options that are now available.

Table 1. Digital Marketing Communications Options

Website	Companies must design websites that embody or express their purpose, history, products and vision. A key challenge is designing a site that is attractive on first viewing and interesting enough to encourage repeat visits. Dedicated websites for mobile devices are on the increase.
Social media	Companies are embracing social media because of its potential for engagement and collaboration with consumers. Social media advertising will yield relatively stronger results because of its ability to tightly target audiences based on social media activity.
Mobile marketing	Mobile phone marketing will become increasingly important. Smartphone use in particular is growing amongst travelers.
Internet-Specific Ads and Videos	With user-generated content sites such as YouTube, MySpace Video and Google Video, consumers and advertisers can upload ads and videos to be shared virally by millions of people.
Display Ads	Display ads are small, rectangular boxes containing text and perhaps a picture that companies pay to place on relevant websites. The larger the audience, the more the placement costs.
Microsites	A microsite is a limited area on the Web managed and paid for by an external advertiser/company. Microsites are individual Web pages or cluster of pages that function as supplements to a primary site.
Search Ads	Paid-search or pay-per-click ads, represent 40% of all on-line ads. Thirty-five percent of all searches are reportedly for products or services. The search terms serve as a proxy for the consumer's consumption interests and trigger relevant links to product or service offerings alongside search results from Google, MSN and Yahoo! Advertisers pay only if people click on the links.
Online Communities	Many companies sponsor on-line communities whose members communicate through postings, instant messaging and chat discussions about special interests related to the company's products and brands.
Interstitials	Interstitials are advertisements, often with video or animation, that pop up between changes on a website, e.g., ads for Johnson & Johnson's Tylenol headache reliever would pop up on brokers' websites whenever the stock market fell by 100 points or more.
Blogs	Blogs are usually maintained by an individual with regular entries of commentary, descriptions of events, or other material such as graphics or video. Most good quality blogs are interactive, allowing visitors to leave comments and even message each other.
E-mail	Email uses only a fraction of the cost of a 'd-mail', or direct mail campaign.

The study defines some specific topics to benefit from the digital world, such as “Think Social”, “Act Mobile”, “Make it Emotional”. “Social networks – particularly Facebook - have emerged as the dominant digital communications channel, particularly for people under 34 years of age”. (Simon Hudson,;Martin S. Roth; Thomas J. Madden,; 2012)

From the history, great researchers documented that interpersonal communication is a significant component of consumer decision process in consumer behaviour, “With numerous studies describing the frequency of consumer word-of-mouth and its influence on recipients. Even in this era of mass communications and mass advertising, it has been estimated that as much as 80% of all buying decisions are influenced by someone's direct recommendation”. (Marsha L. Richins; Teri Root-Shaffer,; 1988)

As traditional word-of-mouth plays a huge role in consumer behaviour, now in digital era electronic word-of-mouth (Ewom) should be taken seriously into consideration by marketers.

“Through Web-based consumer opinion platforms (e.g., epinions.com), the Internet enables customers to share their opinions on, and experiences with, goods and services with a multitude of other consumers; that is, to engage in electronic word-of-mouth (eWOM) communication”. (Thorsten Hennig-Thurau; Kevin P. Gwinner; Gianfranco Walsh; Dwayne D. Gremler,; 2004)

As stated in the article "The Role of Digital and Social Media in Consumer Behaviour" by Andrew T. Stephen (2015) five distinct elements are identified during the research:

1. Consumer Digital Culture;
2. Responses to Digital Advertising;
3. Effects of Digital Environments on Consumer Behavior;
4. Mobile Environments;
5. Online Word-Of-Mouth (eWOM);
6. “Collectively these articles shed light from many different angles on how consumers experience, influence, and are influenced by the digital environments in which they are situated as a part of their daily lives”. (Stephen, 2016)

3. Methodology

To be suitable and satisfactory results, qualitative and quantitative both methods were conducted during the research. As the article researches boosting customer communication through digitization, and how brands can benefit from the digital world, correspondingly thematic analysis from qualitative method was conducted during the research. Handled face-to-face in-depth interviews with the four leading companies of Tbilisi, Georgia.

- Delfos – Jewellery and watches store (Jewellery industry)
- Tosca – Italian shoes, clothing and accessories store (Clothing and footwear industry)
- Bebos Lavashi – Georgian Diet bread Brand (Food industry)
- JB MARTIN Multibrand Shop – shoes and accessories store (Clothing and footwear industry)

Respondents were:

- Delfos – Tatia Kalatozishvili, commercial director;
- Tosca – Lusiana Imnadze, Founder and director;
- Bebos Lavashi – Arkadi Avakimyan, co-founder and director;
- JB MARTIN Multibrand Shop – Salome Bochorishvili, Director;

Q&A with Tatia Kalatozishvili:

1. Which online digital communicational channels does the company use?

Facebook and Instagram, but our main focus is on Facebook.

2. Are the company's social media platforms' inboxes overcrowded?

Yes, all time, especially during the holidays.

3. How many times does the company through online digital communicational channels communicate with consumers? Daily, twice a week? Or more?

As more as possible. Despite that we have a web site, where is uploaded all our collections' photos, still consumers ask us to place more Jewellery photos on Facebook. As a result of this, we post minimum twenty times a week on Facebook.

4. What kind of content marketing does Delfos use?

We post visually beautiful banners. Systematically, like once a month, we change designs for not being bothering for consumers.

5. How does Delfos increase customer engagement through the online digital communicational channels?

Being active on Facebook increases consumer engagement. We offer different kind of sales to our consumers through Fakebook. Ads of visually beautiful photos of our Jewellery reaches thousands of people, and gains a lot likes and comments. Accordingly, sales increases. During holidays, we have marketing campaigns, such as shooting celebrities with our jewellery, placing photos on Facebook and Instagram. After running ads with these photos customer engagement increases twice.

6. Is the company satisfied working in digital marketing?

Our team is quite satisfied working in digital marketing. As a matter of fact, we do marketing activities only in digital, we do not make any activities offline. For us Facebook is the main online digital communicational channel, and our marketing strategies is only spread through Facebook.

Q&A with Salome Bochorishvili:

1. Which online digital communicational channels does the company use?

Facebook and Instagram, but mainly Facebook. I have a few activities on Instagram.

2. Are the company's social media platforms' inboxes overcrowded?

My Facebook business page twenty-four hours a day is overcrowded.

3. How many times does the company through online digital communicational channels communicate with consumers? Daily, twice a week? Or more?

Our brand through Facebook page communicates with our customers daily. We post pictures of our models every day, like twenty posts a day. We post on Facebook as more as possible, like one hundred posts a week.

4. What kind of content marketing does the company use?

Just the real pictures of our collection. Pictured in the store.

5. How does JB MARTIN Multibrand shop increases customer engagement through the online digital communicational channels?

We just put as much photos as possible, nothing more. And run ads of these photos on Facebook and Instagram. That's quite enough for us nowadays.

6. Is the company satisfied working in digital marketing?

As I mentioned before, we are not doing some specific marketing campaigns. We are focused only on Facebook ads. Facebook marketing is quite enough for increasing sales and for raising consumer communication.

Q&A with Lusiana Imnadze:

1. Which online digital communicational channels does the company use?

Facebook and Instagram. On Instagram we are less active than on Facebook.

2. Are the company's social media platforms' inboxes overcrowded?

Facebook inbox is always overcrowded. That is the reason, why we are not active on Instagram.

3. How many times does the company through online digital communicational channels communicate with consumers? Daily, twice a week? Or more?

Our communication between consumers can be explained as posting photos of our collection three times a week, As Tosca is a luxury brand store.

4. What kind of content marketing does Tosca use?

Just placing visually great photos created by graphic designer on Facebook. (with a short description)

5. How does Tosca increase customer engagement through the online digital communicational channels?

We run ads on Facebook and Instagram.

6. Is the company satisfied working in digital marketing?

Yes, of course. Now our consumers are users, they are not calling us, just writing messages through Facebook messenger. Running ads on Facebook and Instagram is the first and last thing what we do for our company's commercial. Result is satisfying. Increases consumer engagement and sales. That is the reason why we are not doing some other extra marketing campaigns through offline traditional channels.

Q&A with Arkadi Avakimyan:

1. Which online digital communicational channels does the company use?

Last one year we are actively using social media network, Facebook. We have not tried Instagram yet.

2. Are the company's social media platforms' inboxes overcrowded?

Yes. All time consumers asking us different type of questions about our diet bread.

3. How many times does the company through online digital communicational channels communicate with consumers? Daily, twice a week? Or more?

On Facebook we post three times a week, and we think that our activity is enough for our brand communication.

4. What kind of content marketing does the company use?

We use creative, entertaining banners and informational videos.

5. How does the company increase customer engagement through the online digital communicational channels?

We started Facebook activities with posting creative banners on our business page. After it, the result showed us that the banners were not enough for our consumers. We wanted more engagement from our users. Accordingly, we started video blogs on Facebook. We made a contract with a blogger, Ninikushka, who is a professional fitness instructor. She is well-known in Tbilisi, Georgia and has a lot of followers on Facebook and Instagram. We put videos four times a month. Two of them teach people how to live with a healthy lifestyle, what kind of food is healthy, and how to make a healthy food. Other two is free classes of workouts. Ninikushka teaches people how to do exercises at home without going to the gym.

6. Is the company satisfied working in digital marketing?

Nowadays almost all our customers are online, correspondingly Facebook activities for us are essential. It helps us to communicate with our customer faster and easily. More than that, after video blogs our sales increased.

As mentioned before qualitative and quantitative both methods were conducted during the research. To be more specific consumer digital experience (DX) is truly important in digital consumer behavior. In addition, to find out digital consumers` expectations and thoughts towards companies, questionnaires with ten multiple-choice questions, as part of quantitative method was created and fulfilled by eighty persons through online sources.

Ten multiple choice questions:

1. On which social network are you more active?
2. Are you following different companies` activities on social network?
3. Does the social network help you to make final purchasing decision?
4. How many products or services buying decision have you made with the help of company's official social network page during last three months?
5. What kind of content earns your attention?
6. What types of products or services do you buy more often with the help of social network pages?
7. Do you discuss your buying decision in Facebook groups?
8. Are you actively following bloggers on social network?
9. On which social network are you following bloggers?
10. Have you made decision of buying products or services from the bloggers` advices?

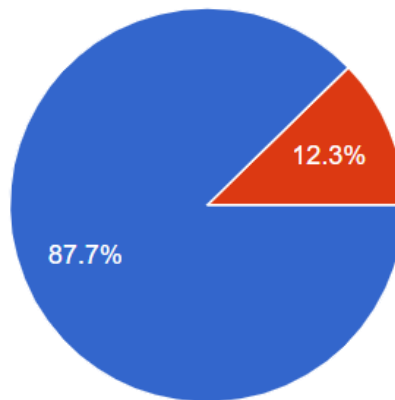


Fig. 1. On which social network are you more active?

Fig. 1. Shows the results of the first multiple choice question. 87.7% are active on Facebook and 12.3% are active on Instagram.

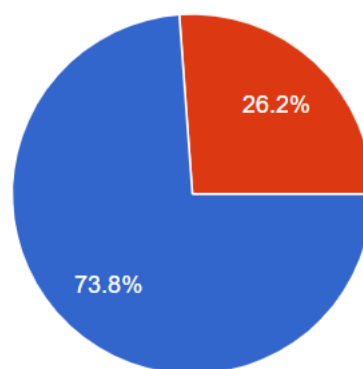


Fig. 2. Are you following different companies` activities on social network?

Fig. 2. Shows the results of the second multiple choice question. 73.8% follow companies' activities on social network. 26.2% do not follow.

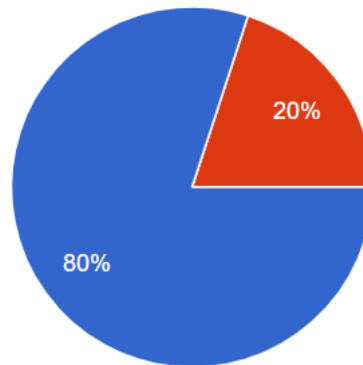


Fig. 3. Does the social network help you to make final purchasing decision?

Fig. 3. Shows the results of the third multiple choice question. 80% agree that social network helps them in final purchasing decision making. And 20% disagree.

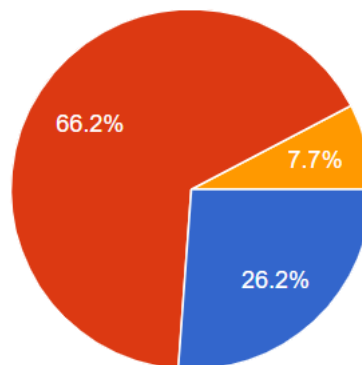


Fig. 4. How many products or services buying decision have you made with the help of company's official social network page during the last three months?

Fig. 4. Shows the results of the fourth multiple choice question. 66.2% buy 1-10 products/services. 26.2% do not buy anything. 7.7% buy 10-20 products/services.

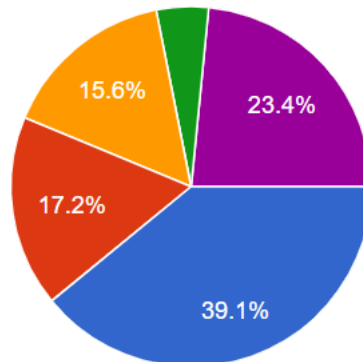


Fig. 5. What kind of content earns your attention?

Fig. 5. Shows the results of the fifth multiple choice question. 39.1% prefer real photos. 23.4% give advantage to the information. 17.2% go for creative banners. 15.6% choose videos and 4.7% selects video lives.

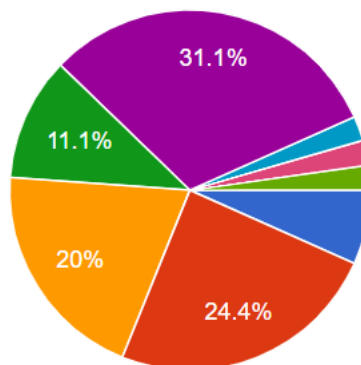


Fig. 6. What types of products or services do you buy more often with the help of social network?

Fig. 6. Shows the results of the sixth multiple choice question. 31.1% buy hair, body and skin care products. 24.4% buy clothing and shoes. 20% buy accessories. 11.1% buy beauty saloons' and healthcare services. 6.7% buy jewellery. 2.2% buy some courses. 2.2% buy fitness centers' services.

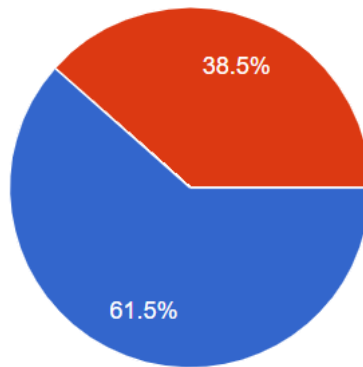


Fig. 7. Do you discuss your buying decision in Facebook Groups?

Fig. 7. Shows the results of the seventh multiple choice question. 61.5% like to discuss their buying decision in Facebook groups and 38.5% do not discuss.

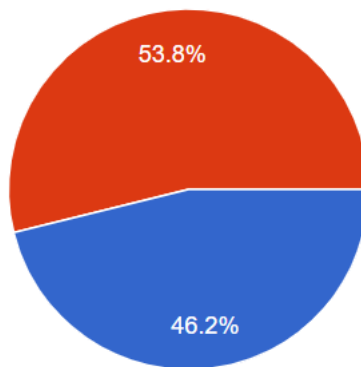


Fig. 8. Are you actively following bloggers on social network?

Fig. 8. Shows the results of the eighth multiple choice question. 53.8% actively follow bloggers on social network and 46.2% do not actively follow bloggers on social network.

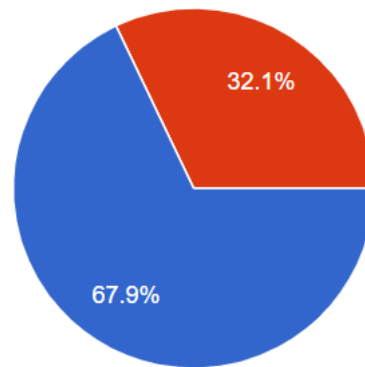


Fig. 9. On which social network are you following bloggers?

Fig. 9. Shows the results of the ninth multiple choice question. 67.9% follows bloggers on Facebook and 32.1% follow bloggers on Instagram.

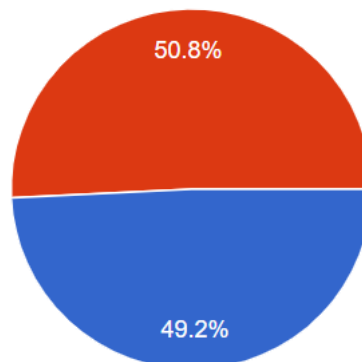


Fig. 10. Have you made decision of buying products or services from the bloggers' advices?

Fig. 10. Shows the results of the tenth multiple choice question. 50.8% do not buy product from the bloggers' advices and 49.2% buy products or services by bloggers' advices.

4. Findings and Conclusion

To outline, four leading company directors of Tbilisi, Georgia were asked about their digital activities. The results showed that consumer communication through digitization, basically through Facebook increases consumer engagement and raises sales. It does not mean, that Instagram or other online digital communicational channels are not effective. This can be attributed to numerous factors - mainly companies are satisfied with the results and they do not want to spend more budget and resources on other online digital communicational channels or other online digital communicational channels are still in preliminary stages.

Findings from the digital consumers' side provide more detailed information about consumers digital experience. Facebook appears to be the most popular social network in Tbilisi, Georgia, as consumers are more active on

Facebook than on any other social networks. Digital consumers getting more engaged with truly-friendly and real content, electronic word of mouth (eWOM) plays a fundamental role as digital consumers love discussing purchasing options and decision making in Facebook groups. Bloggers are paid by companies to make products or services advertised by them. Accordingly, digital consumers listen to bloggers' advices and buy products or services considering their advices.

To conclude, boosting consumer communication through digitization is the powerful tool, that any existing company should undertake in digital era. Philosophy of building a strong, lasting community on social media under the brand is the significant stage for all the organizations. To reach that goal, companies firstly need to determine their consumer's digital experience and after that, provide them with the sustainable, truly-friendly and realistic content for building strong, powerful and lasting ties.

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An Overview of the Use of Agile Methods in Logistics Start-ups Results from a Systematic Literature Review

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Abstract

An increasing number of companies intends to increase their agility through the use of agile methods and practices in order to cope with rapidly changing customer expectations, business model insecurities, and complex technological decisions (Dunne et al., 2016; Yayavaram & Chen, 2015). In start-ups the ability to react to changing circumstances is essential to keep up with other disruptive organizations and create customer value. This paper aims to determine if logistics start-ups use agile methods and practices. Of particular interest will be analyzing which methods and practices are used and what the differences in the application of these methods and practices are between logistics start-ups.

After an analysis of the data of a systematic literature review (SLR), insights on the following points were derived: Use of agile methods and practices in logistics start-ups, the objectives of using agile methods and practices, and difficulties in the application of these methods and practices. To discuss the results of the SLR, they were compared with previous results of an explorative multiple case study analysis.

Future research should deepen these findings with, for instance qualitative data extracted from real-life cases of logistics companies and start-ups. The originality of the SLR presented lies in its contribution to the largely unexplored field of the use of agile methods and practices in start-ups.

Keywords: Systematic literature review, Agile methodology, Logistics, Start-up

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1. INTRODUCTION

In many industries, more and more disruptive start-ups are competing with established companies (Kohler, 2016). Many of these start-ups are successful with their products based on new technological innovations, while the established companies have difficulties keeping pace with digitization and innovation speed (Neus et al., 2017). The logistics industry, known as a fragmented industry and a slow adapter to new technologies, is a key target for innovative start-ups (Kupp et al., 2017). In particular, the following factors are responsible for the changes in the logistics industry: increasing customer expectations, new technologies, the redefinition of collaboration and new entrants to the market (Gawor & Hoberg, 2019). Logistics start-ups are in a position to take advantage of these new developments. It is easier for start-ups to use digital technologies to overcome inefficiencies such as long waiting and transport times, reduce costs through the use of support technologies such as sensors (Duxbury, 2014), but also to respond to rapidly changing customer expectations and uncertainties in the business model. The question is to what extent do logistics start-ups use agile methods to generate the greatest possible added value for the customer.

There are already several publications on agility in the logistics industry (e.g. Gunasekaran et al., 2016), but there is no scientific reference to the rather new research area of logistics start-ups. In general, the increasing number of research projects on logistics start-ups illustrates the need for further research (Holdorf et al., 2015). The increasing cooperation of established IT consulting companies with IT-based (logistics) start-ups through e.g. digital hubs, such as the Digital Hub Logistics of Lufthansa Industry Solutions GmbH & Co. KG, also affirms the interest in innovations and working methods of logistics start-ups from the perspective of large companies and their customers.

The intention of this paper is to find out how the use of agile methods and practices by logistics start-ups is described in the research literature. Additionally, these results will be compared with results from previous real-life interviews on the use of agile methods and practices in logistics start-ups. Methods and practices relevant to this study are based on the agile methods of software development. Thus, approaches such as the agile supply chain are not the objective of this study (Goldman et al., 1995).

These main aspects of this study will be addressed by the following research questions (RQ):

- RQ1: Which agile methods and practices do logistics start-ups use?
- RQ2: Which challenges do logistics start-ups address with agile methods?
- RQ3: What difficulties do logistics and software start-ups face concerning the adoption of agile methods and practices?

The aim of this study is to compare the current state of research in the field of the application of agile methods by logistics start-ups in research literature and with real-life data.

A systematic literature review (SLR) was conducted using ScienceDirect, IEEE Xplore, Springer Link, ACM, Emerald, Wiley and Google Scholar based on guidelines from Kitchenham and Charters as well as Wohlin (Kitchenham & Charters, 2007; Wohlin, 2014). Through the SLR some publications on the use of agile methods in start-ups in general were found. However, no studies were found related to agile methods and practices in logistics start-ups. Numerous sources say that start-ups generally benefit from an agile organization (Klotins et al., 2015; Yau & Murphy, 2013) and can therefore react quickly to changing internal and external factors and changing customer requirements in order to develop continuously improved products (Ghezzi & Cavallo, 2018).

Due to the limited scope of empirical studies, results of the SLR presented comprise the use of agile methods and practices in start-ups in general. These results were compared to the results of previous interviews conducted with logistics start-ups on the topic of agility.

The paper is structured as follows: Section 2 provides background information from research and section 3 describes the research methodology used. Building on this section 4 presents an analysis of the results. Section 5 then presents the limitations and implications of the study and conclusions about its contributions.

2. RESEARCH BACKGROUND

In this section, the definition of logistics start-ups and their characteristics are specified based on existing literature. The adjacent subsection details the concept of agile methods and practices and how they can be used in start-ups.

2.1. Definition of logistics start-ups

To understand the advantages of agile methods for logistics start-ups first a clear definition of the term start-up is needed. One of the most well-known entrepreneurial educators, Steve Blank, and his co-author Bob Dorf, an experienced start-up trainer and consultant, characterize start-ups as follows:

"A startup is not a smaller version of a large company. A startup is a temporary organization in search of a scalable, repeatable, profitable business model." (Blank & Dorf, 2012, p. XXI).

Other sources widen this definitions by other aspects from the entrepreneurial literature. Most frequently mentioned are the following's aspects:

- a newly found organization designed to create a new product or service in its first stage of operation (Giardino et al., 2014; Xavier & Martins, 2011)
- an organization aiming to solve a problem where the solution is so far unknown or not obvious (Albats & Fiegenbaum, 2016; Bajwa, Wang, Nguyen-Duc, & Abrahamsson, 2017a). Several sources state, that the product/ service idea has to be unique or be based on highly innovative technologies and/or business models to be successful (Albats & Fiegenbaum, 2016; Giardino et al., 2016)
- an organization dealing with uncertainty regarding their business model on a weekly or monthly basis but that has the goal to create a scalable and profitable business model (Moogk, 2012; Paternoster et al., 2014; Ries, 2011; Unterkalmsteiner et al., 2016)
- an organization where success can be demonstrated quickly and that is designed to grow (Davidsson & Wiklund, 2006; Klotins et al., 2015)
- an organization frequently operates in highly changeable markets (Unterkalmsteiner et al., 2016) □
- an organization that misses human and financial resources (Giardino et al., 2014; Unterkalmsteiner et al., 2016) □ □

Not every organization, that has been founded recently, is a start-up. In the context of this study a start-up has to fulfill the following aspects: younger than ten years, product/ service that is based on a (highly) innovative technology/ business model, and manifesting/ aiming for significant growth in workforce and/ or sales. Start-ups can either be a venture capital backed small operation or a non-profit organization or cooperate with the government (Moogk, 2012). □

There is no consensus on the definition of logistics start-ups in the literature. For this study logistics start-ups are organizations that mainly focus on the optimization of material flows and overall, cross-company logistics management, viz. supply chain management but also on the management and execution of transport, transshipment, and storage of goods (Göpfert & Seeßle, 2017). Providing a platform to handle goods can also be a service logistics start-ups provide. They do not have to handle physical goods themselves (Sucky & Asdecker, 2019).

Comparing logistics start-ups with start-ups in general, it becomes obvious that on the one hand logistics start-ups can overlap partially with other forms of start-ups, e.g. software start-ups when it comes to, for instance online platforms. On the other hand, logistics start-ups are strongly tied to the often conservative logistics processes, whereas other start-ups often can or even have to follow the latest technologies more easily (Hartel, 2019, p. 135).

2.2. Definition of agile methods and practices

In the past, corporate agility was the first concept of agility that was established in organizational theory and social science to react successfully to change in an insecure world. Brown and Agnew characterized agility as "the

ability to react quickly to changing circumstances" in 1982 (Brown & Agnew, 1982). They included not only flexibility, but also the commitment of important resources, especially human resources, to result-driven goals (Schirmacher & Schoop, 2018). The application of agility was elaborated in the Lehigh Report on Agile Manufacturing published in 1991 (Hooper et al., 2001; Nagel & Dove, 1991). Hooper defined agile manufacturing as "manufacturing system with extraordinary capabilities (internal capabilities: hard and soft technologies, human resources, educated management, information) to meet the rapidly changing needs of the marketplace (speed, flexibility, customers, competitors, suppliers, infrastructure, responsiveness)" (Yusuf et al., 1999, p. 36). In 1995 Goldman enlarges the findings of the Lehigh Report and notes that agility is also of relevance to other organizational elements such as marketing, production, design, organization and management. Goldman et al. defined agility as "a comprehensive response to the business challenges of profiting from the rapidly changing, continually fragmenting, global markets for high-quality, high-performance, customer-configured goods and services" (Goldman et al., 1995, p. 4). With an increased need for agility in business and technological areas such as manufacturing and marketing, the insecurity about changing requirements also affected IT and software development. In 2001, the so-called Agile Manifesto of Software Development Projects was published (Beck et al., 2001) after agile and iterative process models such as Rational Unified Process and methods such as Scrum and Extreme Programming (XP), Feature Driven Development and Kanban were created since the 1980s (Anderson, 2004; Beck, 2000; Kruchten, 1998; Palmer & Felsing, 2002; Schwaber, 1997, 2004; Takeuchi & Nonaka, 1986).

The Agile Manifesto contains four values and twelve principles that aim to optimize the software development process and collaboration with and within teams. In terms of developing customer value, many agile methods and practices have been designed (see Table I) that can also be applied in other non-IT-related areas as well (Highsmith, 2010; Parente, 2015). In general, agile methods specify how products are developed over their entire "[...]lifecycle or major parts of it using a specifically named set of agile practices" (Diebold & Zehler, 2016, p. 21). Contrasted to agile methods, agile practices (synonym: approaches) are "[...] one level below " (Diebold & Dahlem, 2014, p. 2). They represent a small and very specific aspect of a method that addresses various facets. Practices are linked to specific methods, but can be partially combined with further practices of other methods.

Table 1: Overview of the most common agile methods and associated agile practices (Abrahamsson et al., 2003; Beck, 2000; Cockburn, 1998; Palmer & Felsing, 2002; Schwaber, 2004; VersionOne CollabNet, 2019)

Agile method	Agile practices
Scrum	Sprint (Planning), Daily Standups, Retrospectives, Product Owner, Scrum Master, etc.
Kanban	Visualization, Limit work in progress, Feedback cycles, etc.
XP	Refactoring, Continuous integration, Test-driven development, Pair programming, etc.
Feature Driven Development	Feature teams, Inspections, Code ownership, Regular builds of the software, etc.
Crystal	Frequent delivery, Reflective improvement, Close communication, High user involvement, etc.

As stated above agile methods and practices e.g. Scrum and XP can as well be used by other types of project environments like newly found start-ups to improve the flexibility for future demands and to create customer value more quickly (Highsmith, 2010; Parente, 2015; Sarooghi et al., 2019).

Business processes, such as logistics processes belonging to a supply chain, also benefit from being agile. In order to cope with complex situations, logistics research stated back in 2000 that the supply chain management requires agile characteristics in order to survive and grow in volatile markets (Agarwal et al., 2007; Christopher & Towill, 2000). Supply chain agility has the goal to enable rapid responses to short-term changes to address insecurities upstream and downstream in the supply chain (Fayezi et al., 2015). In comparison to agile software development and agile project management, agile supply chain management is not based on the same agile methods and practices because it fosters manufacturing flexibility, supply chain speed or lean manufacturing (Swafford et al., 2006).

Based on these definitions, it can be assumed that logistics start-ups, which are either individual or corporate start-ups, can also benefit from agile methods and practices.

The aim of this study is to describe how and why logistics start-ups apply agile methods and practices.

3. RESEARCH METHODOLOGY

A systematic literature review has been conducted to determine the current state of research literature on the use of agile methods and practices in logistics start-ups. Guidelines by Kitchenham and Charters as well as Wohlin have been followed to conduct the SLR (Kitchenham & Charters, 2007; Wohlin, 2014). Additionally, the research results from the SLR are compared to results from interviews with logistics start-ups on the topic on agile methods. Guidelines from Yin were used to conduct this multiple case study (Yin, 2018). As the main focus of this publication lies on the results of the SLR, the description of research methodology of the SLR is paramount. The description of the SLR research methodology will therefore be more detailed than the description of the research methodology that underlies the interviews.

3.1. Objective and research questions

This SLR and the interviews aimed to answer the following three complementary research questions (RQ), as specified below:

Research Question 1: Which agile methods and practices do logistics start-ups use?

This question is about finding out which agile methods and practices are actually used by logistics start-ups.

Research Question 2: Which challenges do logistics start-ups address with agile methods?

The objective is to find out for which challenges agile methods are used within the start-up. The aim is to find out which goals and improvements the start-ups want to achieve with the help of agile methods and practices.

Research Question 3: What difficulties do logistics start-ups face concerning the adoption of agile methods and practices?

This question summarizes the difficulties that logistics start-ups face when using agile methods and practices.

3.2. Search strategy of the SLR

Following the definition of the research objectives and RQs, the research strategy was defined based on a research protocol to reduce the number of studies found (Zielske & Held, 2019). Keywords were selected and combined into one search term.

In order to identify keywords as criteria for the search, an iterative approach was taken. After the first definition of keywords, additional keywords were extracted from relevant papers. Based on this, alternative spellings and synonyms were identified. After testing the keywords in digital libraries, the keywords were further adapted and supplemented with other keywords to optimize the search process. The final list of keywords can be found in Table 2. The use of keywords in plural did not make a significant difference.

Table 2: Used search keywords

Topic	Sub topic	Search Keyword
Agile	Agile approach	Agile
	Agile methods	Scrum, Kanban, Extreme programming, Lean startup
Logistics	Service	Freight, Transport, Logistics service
	Logistics service industry	Third party logistics, Fourth party logistics, Logistics service provider, Supply chain
Companies	Start-ups	Startup, Start-up, Small medium enterprise, Venture

The keywords were then linked with Boolean operators to form the search term as follows:

Search string: ST = [Agile] + [Logistics] + [Companies]

In detail, the search term looked as follows:

(agile OR scrum OR kanban OR "extreme programming" OR "lean startup") AND (freight OR transport OR "logistics service provider" OR "fourth party logistics" OR "third party logistics" OR "logistics service" OR "supply chain") AND (startup OR start-up OR "small medium enterprise" OR venture)

Digital libraries (Science direct, Google scholar, SpringerLink, IEEEExplore, ACM, Wiley, Emerald) were integrated into the search space. Each library has its own characteristics regarding its search engines, therefore the search string has been adapted for each library. Details are shown in a separate document that contains information for each library (Zielske & Held, 2019).

In the first step a high number of papers were found (9427 results). In order to reduce the number of results, further steps were carried out as shown in Figure 1. In the end, no papers focusing only on logistics start-ups with a connection to agile methods were found. In order to be able to analyze the behavior of start-ups, all eight papers that focus on start-ups in general were selected.

In addition, a reference search is used to identify studies that have cited the selected work - a strategy referred to henceforth as "forward snowballing" - and studies that are in the reference list of the selected work (backward snowballing) (Wohlin, 2014). An additional 68 papers were found through snowballing. 32 papers were found through forward snowballing, and 36 papers through backward snowballing. For the snowballing the search process was started in step three (S3). At the end of this second search process two additional papers were identified which were taken into account for data extraction.

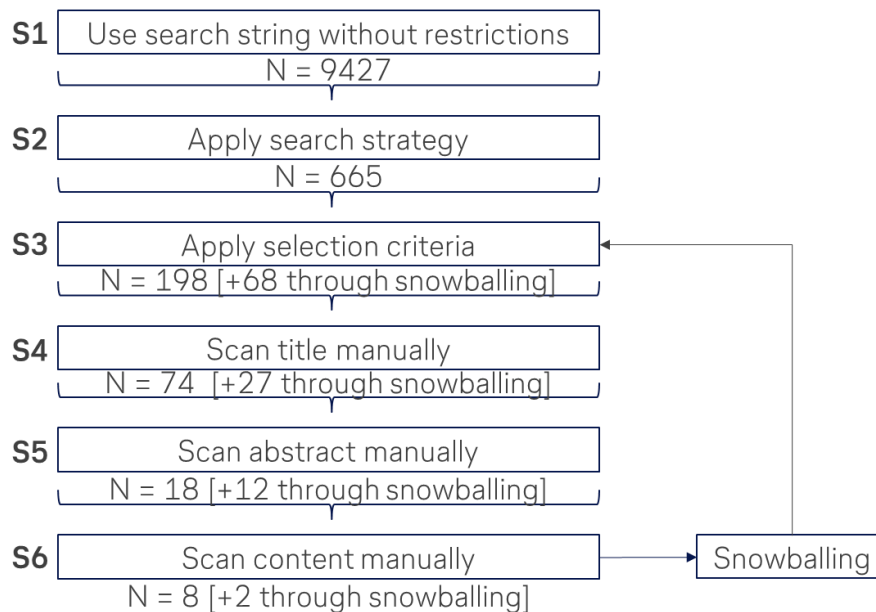


Figure 1: The search process comprises six steps and snowballing

3.3. Study selection of the SLR

The following inclusion and exclusion criteria were used for the study selection. At step three (see S3, Figure 1) these criteria (see

Table 3) were applied as described below:

1. Inclusion criteria 1-3 have to be fulfilled
2. Inclusion criteria 4-6 are used as guideline for whether or not the studies should be selected
3. If any of the exclusion criteria could be applied studies were excluded

Table 3: Inclusion and exclusion criteria

#	Inclusion criteria	Exclusion criteria
1	Papers written in English	No full books, no master or bachelor thesis
2	Papers published between 1999-2019	Papers with results that had been already published e.g. duplicates
3	Specific book chapter (published between 1999-2019)	Papers that did not focused on agile methodologies or whose focus moved away from agile methodologies
4	Papers presenting approaches to solve problems with agile methods in logistics start-ups	
5	Papers presenting the use of agile methods in logistics start-ups	
6	Papers associated with challenges of the application of agile methods in logistics start-ups	

After the data extraction there was no paper that covered logistics start-ups that was relevant to this study. Therefore, on a higher level of abstraction, eight papers were identified as relevant that focused on start-ups in general and agility. Through snowballing two additional papers were found so that a total of ten studies were used.

3.4. Data extraction of the SLR

For the data extraction an Excel spreadsheet was set up based on the guidelines of Kitchenham and Charters (Kitchenham & Charters, 2007). The following quantitative and qualitative parameters were used in this extraction form: General information, publication data, research type, agile method/ practice, company size, type of start-up, company assets, problems of companies, aims of the use of agile methodologies, difficulties with agile methods, quality assessment criteria, and personal assessment.

3.5. Comparison with real-life data

As no results could be found for logistics start-ups during the SLR, the results of the SLR were compared with results from interviews with logistics start-ups. 12 interviews were conducted with founders or members of the management of logistics start-ups in 2018-19 to understand the actual use of agile methods by logistics start-ups. Logistics start-ups founded 2017 or earlier with different business models and target customers were selected. A qualitative research approach was chosen to perform an inductive multiple case study (Eisenhardt, 1989; Ellram, 1996) according to Yin (Yin, 2018).

After collecting publicly, available documents as well as information from the start-up’s homepage semi-structured interviews were conducted with founders and management executives of the logistics start-ups. Two interviewers executed these interviews in German or English. To observe at first hand if agile artefacts are visibly used, the interviews took place in the office of the start-ups. Based on an interview protocol the interviews covered four topics:

- General interviewee and company information;
- Understanding of agility and relevance of agile methods and practices for logistic start-ups in general and application of agile methods and practices in the specific logistics start-up;
- Success of the start-up and interrelation with its agility;
- Final wrap-up where the interviewees were asked for additional information that they considered helpful for further research.

The interview results are used to give an indication how the interviewees evaluate the use of agile methods and practices in logistics start-ups in real-life compared to the results from the literature on start-ups in general.

4. Results

In the SLR no publication focusing on logistics start-ups and agile methods and/or practices was identified and therefore no publication targeting agility in logistics start-ups could be included. Looking at the studies found from a higher level of abstraction, ten studies on start-ups in general were found with reference to agility and/or agile methods/practices. These will be evaluated in the following divided into “hardware” and “software” start-ups. In a first step characteristics of the studies and quantitative data (e.g. publication channel or research method) will be presented. Afterwards, findings of the SLR related to the RQs will be summarized. These findings will be compared with results from the interviews with logistics start-ups.

4.1. Summary of the results

Five of the studies were published in conference proceedings and the other five were published in scientific journals. Eight studies used case studies; two studies were a single case study and six studies used a multiple case study comparing results. One study presented a framework that was developed by the authors without further research to validate their approaches. Another study was a SLR. Overall, it can be stated that the use of agile methods and practices in start-ups is often investigated in a real environment close to existing working practices in start-ups. The two single case studies might not be generalized to other settings, which needs to be taken into account during the interpretation of the results.

A three-point Likert scale was used to evaluate the quality of the studies found (Kitchenham & Charters, 2007; Schön et al., 2017). The first parameter that is used is whether the scientific idea is validated through further research. Eight papers validated the approach used by those carrying out the case studies through (multiple) case studies. The two remaining papers did not validate the proposals postulated, one developed a theoretical framework and the other one performed a SLR. The second quality parameter assessed if the approach was described in detail. In five papers the approach is described in detail so that other researchers could replicate it directly, in the other five papers the approach is only partially described which means that anyone who intends to use the approach must to read the references. Papers missing a detailed approach were not included. QA3 evaluated whether a personal opinion was provided in the study. Five of the ten papers are based purely on research and the other five studies partially include personal viewpoints, because related work is explained and/ or the papers are set into a specific context. QA4 measured how often the study has been cited by other authors. Google scholar was used to determine the number of times a study was cited (assessment date 20.07.2019). Seven papers have been cited more than five times; one paper has been cited fewer than five times; two papers haven't been cited until the assessment date. QA5 questions the clarity of the studies' objective. Nine out of ten studies have a clear objective. Only one study has an objective that is described only vaguely. No paper that lacked the description of an objective was included.

In summary, only one paper fulfilled nearly all of the described criteria and was cited more than five times (Fagerholm et al., 2014). It needs to be noted that this study did not fulfill completely the third quality parameter as personal opinion is presented partly in the study. At the publication date of this paper the results may differ due to the fact that the actual number of citations could change.

4.2. Research Question 1: Which agile methods and practices do logistics start-ups and traditional logistics companies use?

No paper that focused on logistics start-ups and agile methods and practices was found. This is why studies from a higher abstraction level, start-ups in general, are used for the data analysis. From these ten relevant studies, three can be categorized as covering hardware and seven as dealing with software start-ups. Software start-ups are start-ups that earn their money e.g. through the development of software or online platforms, not through the development of physical goods (Bajwa, Wang, Nguyen-Duc, & Abrahamsson, 2017a). Hardware start-ups on the other side focus on the development of tangible goods (Stock & Seliger, 2016). The agile methods found in these studies can be seen in Table 4.

Table 4: Agile methods applied within hardware and software start-ups

Agile method	Applied in hardware start-up	Applied in software start-up
Kanban	1	-
eXtreme Programming	1	1
Scrum	1	2

The ten relevant studies show that hardware and software start-ups use agile methods without significant differences. It needs to be noted, that out of the three publications covering hardware start-ups, only one deals with agile methods (Scrum, XP and Kanban). Two of the seven publications on software start-ups deal with agile methods.

Results from the interviews with logistics start-ups (see 3.5) show that Scrum and Kanban are frequently applied in logistics start-ups.

Table 5: Agile practices applied in hardware and software start-ups

Agile practice	Applied in hardware start-up	Applied in software start-up
Lean startup	1	5
Test-driven-development	-	1
Continuous customer experiments	-	2
Pair programming	-	1
Sprint planning	1	-
Product owner	1	-
Prioritized backlog	-	1
Pivot	-	4
Iterative development	1	-
(Rapid) prototyping	2	1
Minimum Viable Product (MVP)	1	3

Looking at the results, it can be noted that single agile practices seem to be used more often by start-ups than entire agile methods. Comparing hardware and software start-ups more diversified practices are used by software start-ups. Seven different practices are used by software start-ups whereas only five practices are used by hardware start-ups. Out of the three hardware start-ups, all hardware start-ups use agile practices. Out of the seven software start-ups, six software start-ups use agile practices. The practices used by software and hardware start-ups are mainly short feedback cycles through MVPs, prototyping, Lean startup, continuous customer experiments and iterations. These practices can be helpful for start-ups to refocus and learn from (customer) feedback coming from short feedback cycles.

Interviewees of logistics start-ups stated that logistics start-ups focused more on practices such as a prioritized backlog, self-organized teams, transparency and not too detailed descriptions of user stories beforehand. The Lean startup practices seems to be less popular in the logistics start-ups than in the hardware and software start-ups in this SLR. 60 % of the studies described the use of the Lean startup practice in hardware and software start-ups, whereas only one third of the interviewees stated that logistics start-ups use it. But the interviewees of the logistics start-ups explained that getting feedback from customers is considered important as well and enabled through hypothesis testing which is part of the Lean startup practice.

4.3. *Research Question 2: Which challenges do logistics start-ups and traditional logistics companies solve with agile methods?*

In this SLR it was also examined which challenges software and hardware start-ups address with agile methods and practices. The challenges found were grouped into the following clusters based on the experiences from the studies included:

- Customer-related challenges
- Product-related challenges
- Processual and organizational challenges

For each cluster the challenges are described together with the agile methods or practices applied to address the challenge. Additionally, it is stated if the challenge occurred in a software or hardware start-up and how many employees these companies have, if mentioned in the study.

Through the use of agile methods and practices software startups want to solve customer related challenges. Using methods like Scrum and practices such as Lean Startup including MVPs and pivots, they want to improve their capability and speed to adapt to changing customer requirements and learn from customer feedback. To develop the right product efficiently for the customer hardware and software start-ups use methods like Scrum and Kanban and practices like Lean startup, prototyping and pair programming. Looking at processual and organizational challenges software start-ups face challenges such as the lack of resources, intensive time pressure but also technological or economic uncertainty. To assist in these situations, agile methods such as Scrum and XP and agile practices such as the use of a backlog, sprint planning and TDD are used.

Table 6: Challenges that hardware and software start-ups want to solve with the use of agile methods and practices

Cluster	Challenge	Agile method/ practice to face challenge	Company characteristics	Paper
Customer challenge	Difficulty to satisfy customer requirements within agreed time, high quality and service levels	Scrum, Lean Startup, MVP, Pivot	Software start-ups (n/a)	(Bajwa, Wang, Nguyen-Duc, Chanin, et al., 2017)
	Systematically include and learn from early customer feedback	Lean startup/ Continuous customer experiments, MVP, Scrum	Software Start-up (11-50; <18 employees)	(Fagerholm et al., 2014; Nguyen-Duc & Abrahamsson, 2016)
	Technological/ economical uncertainty and fast growing markets	Prototyping, Pair Programming, TDD, Backlog, UX Design, Pivots, Teamwork, Lean Startup, MVP, Scrum, XP	Software start-up (n/a)	(Bajwa, Wang, Nguyen-Duc, & Abrahamsson, 2017b; Bajwa, Wang, Nguyen-Duc, Chanin, et al., 2017; Unterkalmsteiner et al., 2016)
Product challenge	Efficiently develop the right products	Prototyping, Fast time to market, Scrum, Kanban, XP, sprint planning, product owner, Pair Programming, TDD, Backlog, UX Design, Pivots, Teamwork, Lean Startup,	Hardware and software start-ups (<20, n/a)	(Nguyen-Duc et al., 2018; Unterkalmsteiner et al., 2016)
Processual and organizational challenge	Personnel bottlenecks, time pressure and lack of resources	Continuous delivery, Prototyping, Pair Programming, TDD, Backlog, UX Design, Pivots, Teamwork, Lean Startup, MVP, Scrum, XP	Software start-up (n/a)	(Bajwa, Wang, Nguyen-Duc, Chanin, et al., 2017; Unterkalmsteiner et al., 2016)

It was expressed by the interviewees from the logistics start-ups in the multiple case study (see 3.5) that they used agile methods and practices for similar reasons as software and hardware start-ups. Most of the interviewees even said, that logistics start-ups need to be agile in order to survive and cope with the business model insecurity.

4.4. Research Question 3: What difficulties do logistics start-ups and traditional logistics companies face?

Some of the studies found during the SLR stated difficulties that software and hardware start-ups face when using agile methods and practices. These difficulties are grouped into the following clusters based on the experiences from the studies included:

- Product-related difficulties
- Processual difficulties

For each cluster the difficulties are described together with the agile methods or practices applied. Additionally, it is stated if the challenge occurred in a software or hardware start-up and the company size, if mentioned in the study.

Only four of ten studies described difficulties start-ups face applying agile methods and practices.

Even while applying agile methods and practices, hardware start-ups have problems with the conduction of experiments because it is more difficult to build small increments using physical products and they therefore have longer release cycles and higher costs. Looking at another product related difficulty; software start-ups have problems generating the right test artefacts for different stakeholders.

Software startups have processual problems such as coordination of experiments, if they run in parallel, prioritization of the assumptions to be tested without early customers or a possible bias if MVPs/ experiments have to be conducted with intermediaries instead of the real customer.

Although papers on established logistics companies claim that established logistics companies using agile methods and practices often have problems with the mindset and culture within the company, none of the relevant papers on start-ups in this SLR described the mindset or cultural issues as a difficulty.

Table 7: Difficulties that hardware and software start-ups face using agile methods and practices

Cluster	Difficulties	Applied agile method/ practice	Company charac. (# employees)	Paper
Product difficulty	Experiments might not be possible due to high costs/ longer gestation periods/ technical risk or the (hardware) product itself	Lean startup/ Continuous customer experiments, Prototyping, MVP	Hardware and software start-ups (11-50, n/a, 4-12)	(Fagerholm et al., 2014; Nguyen-Duc et al., 2015; Werwath, 2019)
	Experiments with different stakeholders might need different testing artefacts	Lean startup/ Continuous customer experiments	Start-ups (11-50)	(Fagerholm et al., 2014)
Processual difficulty	Run several experiments/ MVPs in parallel: Coordination of experiments is important	Lean startup/ Continuous customer experiments, Scrum, MVP, Lean Startup	Software start-ups (11-50, <18)	(Fagerholm et al., 2014; Nguyen-Duc & Abrahamsson, 2016)
	Prioritization of the assumptions that are to be tested (without early customers)	Lean startup/ Continuous customer experiments, MVP, pivots	Software start-ups (11-50, 4-12)	(Fagerholm et al., 2014; Nguyen-Duc et al., 2015)
	Experiments conducted with intermediaries can be biased if product is not directly sold to customer	Lean startup/ Continuous customer experiments	Software start-ups (11-50)	(Fagerholm et al., 2014)

Looking at logistics start-ups, the interviewees described that the use of agile methods and practices sometimes creates overhead that costs too much time. For logistics start-ups growth and scaling of agile methods and practices can be a challenge as well.

5. Discussion

A total of ten relevant studies was found and analyzed according to the research protocol. Results of 12 interviews with logistics start-ups were used to compare the results of the literature to real life data. To discuss the results, the results will be outlined in connection with our RQs and the limitations of this study will be described.

5.1. Meaning of the findings

This chapter discusses the results of the SLRs and the interviews in general and in the context of the RQs.

General findings

The results of the SLR show that the use of agile methods and practices in start-ups has been studied in general, but not with special focus on logistics start-ups. No paper has been found for logistics start-ups. The relevant studies were divided into studies on hardware start-ups and studies on software start-ups. More than half of the studies focused on software start-ups. The studies show that single practices are used more frequently than entire agile methods. Furthermore, it needs to be noted, that software start-ups use agile methods and practices more than hardware start-ups. In summary, it can be concluded that the use of agile methods and practices in start-ups is an important research topic and a research gap looking at the use of agile methods and practices in logistics start-ups can be identified. The heterogeneity of the relevant studies shows that this is a complex research field which is influenced by many other fields. In addition, as many of the relevant studies based their research on real-life data this research field is close to actual work practices. The results from the 12 interviews with founders or managers from logistics start-ups confirms the importance of agile methods and practices for (logistics) start-ups.

Findings Research Question 1

Looking at the first RQ, it can be summarized that in start-ups agile methods and practices are used. As no paper was found that focused on the use of agile methods and practices in logistics start-ups no response can be given for those according to the literature. Relevant papers described how software and hardware start-ups use agile methods (Scrum, Kanban and XP) without a significant difference. These results have been compared to a previous multiple case study where managers and founders of logistics start-ups were interviewed (see 3.5). The interviewees stated that Scrum and Kanban were frequently applied in logistics start-ups. Based on the results from this SLR agile practices seem to be used more often than the entire associated agile method. The agile practices that are used the most in software and hardware start-ups are the use of short feedback cycles through MVPs, prototyping, Lean startup, continuous customer experiments and iterations. Comparing the results to the results of the multiple case study with interviewees of logistics start-ups, the logistics start-ups focus more on practices like a prioritized backlog, self-organized teams, transparency and not too detailed descriptions of user stories beforehand. Further research with regard to logistics start-ups and the use of agile methods and practices is required in light of the missing studies on logistics start-ups.

Findings Research Question 2

Challenges that software and hardware start-ups aim to solve with agile methods and practices are clustered into customer-related, product-related, and processual and organizational challenges. No challenges for logistics start-ups could be identified as no study could be found focusing on logistics start-ups. Using agile methods and practices software and hardware startups aim to improve their capabilities and speed to adapt to changing customer requirements and learn from customer feedback to develop the right product efficiently. Additionally the relevant studies described that software start-ups want to reduce personnel bottlenecks and the lack of resources in general and be able to cope with intensive time pressure but also technological/ economic uncertainty. Interviewees from the logistics start-ups in the multiple case study (see 3.5) stated that they use agile methods and practices for similar reasons. In summary, it can be concluded that agile methods and practices seem to be judged helpful in dealing with the problems described above that can occur in (logistics) start-ups.

Findings Research Question 3

The third RQ discussed difficulties that software and in particular hardware start-ups face when applying agile methods and practices. The difficulties were clustered into product-related and processual difficulties. Hardware start-ups face difficulties conducting experiments, as it is more difficult to build small increments out of physical products than out of software. Physical products often have longer release cycles and higher costs. Software start-ups on the other side have problems generating the right test artefact for different stakeholders, and coordinating experiments, if they run in parallel. In addition, software start-ups might have problems with the prioritization of the experiments without early customers or a possible bias if MVPs/ experiments have to be conducted with

intermediaries instead of the actual customer. The interviewees of the logistics start-ups described the overhead that can result from the use of agile methods and practices and that can cost much time. Growth and scaling of agile methods and practices can be a challenge as well for logistics start-ups. To conclude, it becomes clear, that challenges depend among others on the type of start-up but also on the phase of growth.

5.2. *Limitations of the systematic literature review*

Due to the large quantity of published literature, some studies may have been overlooked, despite the fact that a predefined research protocol was applied and followed to support the completeness of this study. Forward and backward snowballing was used to counter this risk. Snowballing also minimizes the risk of bias in the selection process. In steps four to six (scan title, summary and content manually), the authors decided which papers were relevant and should be included. Performing these selection steps may have led to a certain subjectivity. Another shortcoming of these SLR could be the selection criteria chosen, since, for example, only English-language papers were considered, meaning that other potentially relevant studies in other languages, for instance publications in German language, were excluded (e.g. Fottner & Hietschold, 2018; Göpfert & Seeßle, 2019; Schwemmer, 2019; Sucky & Asdecker, 2019).

Looking at the results, it can be seen that no publications were found that addressed logistics start-ups and agile methods and practices. A higher level of abstraction was therefore used to include all work found on start-ups in general. These results were compared with results from interviews with founders and managers of logistics start-ups. Since a total of only 12 interviews was conducted in this multiple case study and only one person was interviewed per start-up, this comparison is not representative and cannot be generalized.

6. **Conclusion and outlook**

This paper presents an SLR on the use of agile methods and practices in start-ups. The SLR aims to capture the current state of literature in the context of the integrated area of logistics and agility. This review is based on the guidelines of Kitchenham and Charters as well as Wohlin (Kitchenham & Charters, 2007; Wohlin, 2014). A total of 9427 papers were identified in the first search step without restrictions and 68 using the snowball technique. To reduce the result set, the search process was performed in six steps. At the end of the six steps, in total only 10 studies were identified as relevant. A quality assessment was then carried out to assess the quality of each publication. The publications were then quantitatively classified according to research method, publication date and channel. The publications included were published between 1999 and 2015.

This review has several implications for both researchers and practitioners. Based on a qualitative analysis of the studies included, it can be observed that a common understanding of the use of agile methods and practices is not very well established neither in the (logistics) industry nor in research. Through an in-depth analysis of the relevant studies, it became clear that no work examines the use of agile methods and practices in the logistics industry in start-ups. For start-ups in general, the studies have shown that some agile methods and practices are used. As methods Scrum, Kanban and XP were identified. The interviews conducted with interviewees from logistics start-ups show that Scrum and Kanban are used in logistics start-ups. These methods are supported by the use of numerous agile practices. In addition, a number of challenges has been identified that can be solved with agile methods and practices, as well as difficulties that can occur in the application of these agile methods and practices.

Industrial practitioners can utilize these insights as guidance to learn from the experiences software, hardware and logistics start-ups made with the use of agile methods and practices.

In summary, the review shows the need for more empirical studies working on the application of agile methods and practices that include start-ups and especially logistics start-ups. Furthermore, it can be summarized that there is a heterogeneity between start-ups with regard to the use of agile methods and practices. There are publications that focus on the use of agile methods and practices in software and hardware start-ups, but no publications for logistics start-ups could be found. Future research may focus on logistics start-ups and for instance further qualitative data collection based on interviews, workshops or a Delphi study with logistics start-ups. Another aim could be to create a meta-model that describes the use of agile methods and practices by start-ups on a higher level.

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The Relationship Between the Physical Fitness Levels and Academic Achievements of the Secondary School Students at the Ages 10-13

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Abstract

The aim of this study is to analyze the relationships between the physical fitness levels and academic achievements of the secondary school students at the ages of 10 – 13. The sample of the study consisted of 50 voluntary and randomized students (n = 21 females, n = 29 males) studying in Dr. Fevzi Mürüvet Uğuroğlu Secondary School in Aydın. Eurofit Test Battery was used to determine the physical fitness levels of the students. The students' scores on Science, Turkish, Mathematics, Social Studies and Foreign Language (English) lessons in the first semester of 2018 – 2015 educational years were used as criterion of academic achievements of the students

It was determined that there was a significant difference between the students' values on the balance, speed and sit-up tests and their academic achievements in favor of male students according to the gender ($p < 0.05$). In addition, it was seen that there was no relationship between the students' physical fitness levels and their academic achievements ($p > 0.05$).

In conclusion, it was understood that there was no relationship between the physical fitness levels and the academic achievements of the secondary school students at the ages of 10 – 13.

Keywords: physical fitness, child, academic achievement.

Comparative Analyses of Motor Performance Between Players of Youth and Junior National Volleyball Teams in Macedonia

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Abstract

The research is realized on a sample of 30 respondents aged 13-18 female youth (N=15) and junior (N=15) volleyball players, members of the national teams of Macedonia. The establishing process starts by measuring the motor performance of the players. The aim of the study is to compare the players that are part of our youth and junior national teams. To compare the results, or to test the significance of the mean difference between players, we have applied t-test for small independent samples, and to determine the size of the effect, we have applied the measurement Effect Size. Statistical packages such as SPSS 14.0 and statistic 6.0, were used in order to calculate the appropriate data. After the applied analysis, and based on the results that were obtained in this research, we have concluded that there isn't a statistically significant difference between players from the national youth team and national junior team of Macedonia, in regard to their motor performance. We will consider that our hypothesis is not confirmed.

Keywords: Establishment/Comparative/ Volleyball/ Motor performance

INTRODUCTION

The process of evaluating, measuring, testing and analyzing the overall anthropological and motor space of athletes is a necessary and inevitably mandatory segment in top sport. It means a detailed overview of the morphological composition of the athletes' body, a complete insight into their motor, and an understanding of their psychological characteristics and neurophysiological characteristics. Comparing the results not only enables the distinction between ordinary and top athletes, or athletes of different age categories, but also enables qualitative comparisons with athletes across countries in the world where volleyball is significantly developed and at a much higher level than Macedonian volleyball.

With this information in mind and following the example of top volleyball teams, coaches could properly plan and schedule the training process and guide the athletes in the direction of refining the sport technique, which

is the foundation for high sporting achievements. In this way, athletes would know which part of the training process to pay attention to, and coaches how to program sports training more effectively.

Taking into consideration the above, and knowing that the Macedonian volleyball is currently not at the level it was 10-20 years ago by the quality criterion, there is a need to conduct more research of this kind, in which analysis of the anthropological and motor space of the athletes, which would point out all the shortcomings, and the reasons for the situation in this sport.

1.1. Research methods

The subject of the research is the situational-motor knowledge of cadets and youth volleyball players of the Republic of Macedonia. Macedonia. The purpose of the research is to compare motor skills among volleyball players, so that it will be determined whether they differ statistically from each other.

In this research has establish the following hypothesis:

Hypothesis 1: There will be no statistically significant differences between female players of the cadet and youth representation of Macedonia, regarding the situational-motor knowledge that they possess.

The research was conducted on a sample of 30 volleyball players aged 13-18 year, who are part of the Macedonian cadet and youth team in the 2017/18 competition season. The first group - cadet volleyball players (N=15), aged 13-15 years, and the second group - youth volleyball players (N=15), aged 16-18 years. The study used two tests for assessing motor knowledge: FINGERS (test - Russel-Lange) and FOREARMS (test - Russel-Lange, taken by the authors (Collins, & Hodges, 2001).

Following the procedure for measuring and testing the respondents and collecting the obtained data, appropriate mathematical-statistical procedures were applied to process the obtained results. The normal distribution of the results is first tested with the Kolmogorov-Smirnov procedure, and then the basic descriptive statistical parameters of the cadets and youth volleyball teams of Macedonia are calculated. To determine if the defined groups of respondents differ statistically, a t - test for small independent samples, including effect size, was used. Statistical package programs were used in the data processing: SPSS 14.0, as well as the Microsoft Office Excel spreadsheet.

1.2. Resultsof research

In the Table 1 (see below) are presents the basic descriptive statistical indicators of the variables for assessing situational-motor knowledge among volleyball players from Macedonia's cadet team.

Table 1. Basic descriptive statistical indicators of volleyball players from Macedonia's cadet representation - Situational-motor knowledge

	N	Min	Max	X	SD	CV%	K-S	Skewness	Kurtosis
Fingers (R-L)	15	29,00	40,00	35,60	3,36	9,42	p>20	-0,49	-0,31
Forearms (R-L)	15	14,00	28,00	23,47	4,73	20,17	p>20	-1,08	-0,15

In the Table 2 (see below) are presents the basic descriptive statistical indicators of the tests for assessing the situational-motor knowledge of the volleyball players of the Macedonian's youth volleyball team.

Table 2. Basic descriptive statistical indicators of volleyball players from Macedonia's youth representation - Situational-motor knowledge

	N	Min	Max	X	SD	CV%	K-S	Skewness	Kurtosis
Fingers (R-L)	15	29,00	40,00	35,47	3,18	8,97	p>20	-0,73	-0,18
Forearms (R-L)	15	17,00	29,00	24,87	3,30	13,29	p>20	-1,07	-0,44

In the Table 3 (see below) are presents the results of testing the significance of the difference between the volleyball players from the Macedonian cadets and youth teams, and the value of the Effect Size.

Table 3. Test results of the significance of the difference and the magnitude of the effect - situational-motor knowledge

	Situational-motoric knowledge	
	FINGERS (R-L)	FOREARMS (R-L)
P Level (t-test)	0.91	0,36
Effect Size	-0,04	0,35

1.3. Discussion of results

The values shown in Table 1, which is the cadets have a slight deviation with respect to the symmetry of the results in the FOREARMS(R-L) variable, while in the FINGERS (R-L) the results are symmetrical and "left-oriented". This slight deviation, at first glance could mean that the same named tests have poor metric characteristics and are suitable for use in this sample of respondents, but in fact the values obtained for **Skewness** could be a result of insufficient motivation of women, or at worst, insufficient knowledge of the technical elements.

Despite the specialization of players when it comes to tests that assessed knowledge of the basic elements of volleyball technique, there must not be such a dispersion of results. The values of the coefficient of variability, which show how the results vary about the value of arithmetic environment generally indicate the homogeneity of the composition of the cadets in terms of the parameters tested.

From the values who is shown for **Skewness** and **Kurtosis** in Table 2, it can be seen that the youth in our team have a normal distribution of results in the FINGERS (R-L) variable. Whereas, the value for **Skewness(-1.07)** for the FOREARMS (R-L), which is slightly higher than the limit value (from -1 to +1), indicates a slight deviation with respect to the symmetry of the results, which could be reported a lack of motivation among the respondents.

The coefficients of variability coefficient, which show how much the results vary around the value of the arithmetic mean, indicate the homogeneity of the composition of the youth team in terms of the parameters examined. This means that young women in the national composition are optimally equated in terms of their situational and motor knowledge. This is a good indication of the proper training process that the youngsters who are part of our national team have been motivated to do, which has contributed to mastering the basic elements of the volleyball technique for all players equally.

The values obtained in Table 3, which are based on **Effect Size** are indicate that there are no statistically significant differences between cadets and youth in our national teams in terms of situational-motor knowledge. This is assumed to be due to omissions in the volleyball coaching process, lack of commitment by coaches, and their minimal commitment to mastering the essentials of volleyball technique among athletes. It is not justified for young women who have more training experience, which directly affects the situational-motor knowledge of volleyball players, not to be different from the volleyball players in the cadet national team.

1.4. Concussion

As a conclusion from this scientific paper is that there are no statistically significant differences between the volleyball players from Macedonia's cadet and youth national team in terms of situational-motor knowledge, which means that the hypothesis set in the research is not confirmed. This research outcome is assumed to reflect an inadequate training process for volleyball players in their clubs and national teams, insufficient commitment by coaches and other professionals involved in the same, and possibly insufficient motivation for volleyball players to be maximally engaged during trainings and competition time.

There is no justification or volleyball players with different training experience and different competitive experience not to differ in terms of situational-motor knowledge, especially volleyball players from the Macedonian youth team who are more involved in the training process, and are not different from the volleyball players of the national team.

Therefore, planning and programming of the volleyball training process should be taken into account in the future and more attention given to technical training as a precondition for upgrading motor skills. It would also be useful to introduce reforms to the volleyball competition system so that they would be included in a larger number of competitions, which would significantly contribute to the expansion of the situational-motor knowledge they possess.

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Analysis of Economic Parameters in Sport

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Abstract

Sports economics is a discipline of economics focused on its relationship to sports. It covers both the ways in which economists can study the distinctive institutions of sports, and the ways in which sports can allow economists to research many topics, including discrimination and antitrust law. The theoretical foundations of the discipline are heavily based on microeconomics. Sports economics' theoretical base is nested heavily in theoretical and empirical microeconomic analysis with far reaching applications. Sports economics modules offer a range of transferable and specific skills that can be applied to a range of job opportunities, particularly in the ever-growing sports and leisure industries, local government and tourism. The central theme that characterises sports economics is that competing teams must co-operate, to some degree, for a meaningful schedule of matches to take place. This gives rise to two terms: uncertainty of outcome and competitive balance. Specifically, the attractiveness of a given fixture will be enhanced if the outcome is uncertain; matches which are foregone conclusions will be less attractive in the long term to paying spectators, as well as to the media. Thus, it is in the interest of a league to sustain fan interest for as long as possible by providing fixture lists between equally matched teams.

Keywords: Sports economics, analysis, matches, leisure industries.

1. INTRODUCTION

Today, it is quite normal to wonder what happens to sports. Today is a time of globalization, a time of false democracy, a time of grounding and a struggle for human rights and freedom, a time when everything is relative, a time when morality is absurd, and a man forgetting himself becomes a prisoner of his own egoism and selfishness. How to remain honest and successful at such a time? On one occasion at the end of the 20th century, they asked Mr. Mark Twain¹ how to get rich the easiest way, and he replied very briefly: Honest if you must, and dishonest if you can. With this thought Twain's seemed to pave the way for modern man.

As Prof. Dr, Andy Cooke says "The central theme that characterises sports economics is that competing teams must co-operate, to some degree, for a meaningful schedule of matches to take place. This gives rise to two terms: uncertainty of outcome and competitive balance. Specifically, the attractiveness of a given fixture will be enhanced if the outcome is uncertain; matches which are foregone conclusions will be less attractive in the long term

¹ Samuel Langhorne Clemens (November 30, 1835 – April 21, 1910), known by his pen name Mark Twain, was an American writer, humorist, entrepreneur, publisher, and lecturer

to paying spectators, as well as to the media. Thus, it is in the interest of a league to sustain fan interest for as long as possible by providing fixture lists between equally matched teams”, (Cooke Andy, 2018)².

Sports economics links directly to a range of sub-disciplines within the broader economics literature such as industrial economics (e.g. league organisation and the relationship between teams), theory of the firm (e.g. the validity of the profit maximisation assumption when many sports teams persistently lose money), labour economics (e.g. the impact of labour market restrictions which reduce player mobility and impact on wage rates) and demand theory (e.g. measuring the impact of different variables on game attendances). Thus, sport offers an array of highly relevant applications to the economist, (Cooke Andy, 2018)³.

1.1. Sport more than a game

In fact, sports economics cannot be dismissed quite so lightly for at least four reasons (Alex Bryson, Bernd Frick, Rob Simmons, 2015). First, sport is big business. A 2007 year European Commission White Paper for Sport indicated that, in 2004, sport generated value added of **€ 407 billion**, accounting for 3.7 percent (%) of EU GDP (EU, 2007)⁴.

Football has changed. Teams continue to form part of the cultural and sentimental heritage of cities and national teams, which continue to arouse passions. They can be considered another national symbol. But, beyond this cultural dimension, recent decades have been dominated by the importance of the financial and media dimensions of the sport.

This analysis of economic parameters in sport, will be based on the second important thing in the world – football. When we talk about sports and the economy today, it is an unbreakable link between the mutual flow of capital and sport. For the reason that the largest percentage of capital is in football, because football is the most profitable part of the sport, this analysis will focus on sports game - football, by quoting the audit report of the renowned auditing firm Deloitte for the football season 2007-2008, or rather a year of recession. Deloitte conducts financial analysis continuously from year to year. For recession reason we start with this year, when Europe's football market in the 2007-2008 season was worth **€ 14.6 billion**, an increase of **€ 1 billion** from the previous season. For this growth, its influence had popularity of European Football Championship in 2008 year, which is the highest event, not only football but sports event ever. The popularity of this sport competition had a strong impact for income growth with **€ 0.7 billion** in the five major football leagues in Europe.

According this economics analysis, revenues in the five biggest football leagues *England - Premier League, Italy - Serie A, Germany - Bundesliga, Spain - Primera La Liga, and French - League 1*, in the 2007-2008 professional football total increased to **€ 8.08 billion**. Here the analysis suggests that one of the key financial tools for this increase was the possibility of developing and rich football leagues to sell broadcasting rights to football matches (see below, Table 1).

² Andy Cooke, (2018). Sports Economics, Journal of Sports Economics, Nottingham Trent University, eISSN: 15527794 | ISSN: 15270025, Volume: 21, Issue: 2

³ Andy Cooke, (2018). Sports Economics, Journal of Sports Economics, Nottingham Trent University, eISSN: 15527794 | ISSN: 15270025, Volume: 21, Issue: 2

⁴ Alex Bryson, Bernd Frick, Rob Simmons (2015). Bryson, Frick and simmons sports economics: it may Be Fun But what's the point? National Institute of Economic and Social Research, CEP and IZA. 232(1):R1-R3 · May 2015

Table 1. Graphic presentation of the annual revenues of the five most influential professional football leagues in Europe



As a sign of football's resilience to the economic downturn, Deloitte had predicted that the revenue of Europe's leading football clubs would grow in the coming seasons, but perhaps at a slower pace. Contrary to Deloitte's predictions of a slow pace, today through television rights and broadcasting agreements and commercial co-operation contributed to revenue growth for the five biggest European football leagues in the **2016-2017 professional season**, which represents half of the quoted year, or a total of **€ 12 billion**. This confirms Deloitte's thesis that European football was absolutely resistant to the recession that hit Europe. Today, the English Premier League and the German Bundesliga top the gate rankings year after year among the top five European leagues over **90 percent (%)** increase their own revenues of capacity this season, ahead of the Spanish and French leagues who is **70 percent (%)** increase their own revenues. The Italian Serie A is fifth in the rankings with **60 percent (%)**. The Germans and English fill their stadiums, but their success is based on different models.

1.2. Sponsors and their economic impact

The football economy is undergoing change. The influence of countries is replacing the top commercial brands, but their investments show different traits. Paul Kagame, president of Rwanda, has invested **€ 30 billion** in sponsoring Football club Arsenal from London UK. Chad (number 122 in the ranking of countries by GDP according to the IMF) signed an agreement with French club Metz, from France. These are two examples of the tourism promotion strategy initiated by countries with few economic resources.

If we look at the Middle East, the tactic of diversifying their economy from oil (United Arab Emirates) or gas (Qatar) to tourism and leisure is combined with other interests. The Qatar Foundation, former sponsor of Football club Barcelona from Barcelona, Spain, paid the Catalan club **€ 150 billion** in 2011 year. Tamin bin Hamad Al-Thani, the Emir of Qatar, bought Football club Paris Saint Germain, from Paris, France in 2011 year. Experts agree that the intention behind these moves is to weave commercial networks in the west in preparation for a modern, post-gas economy, making enough noise to overcome the shadow of threat represented by Saudi Arabia.

In 2015 year, **38 percent (%)** of the 2.7 billion of spectators in the Premier League were Chinese people, a situation that is repeated in the other European leagues. Commercial brands know this and, like US car manufacturer Chevrolet make sponsorship agreement worth it **£ 450 billion** with Football club Manchester United from Manchester, UK, and Football club Chelsea, London, UK have agreed a stunning **£ 60 billion** a year kit deal with Nike that will help the club to continue to compete at the top end of the transfer market, despite failing to qualify for the Champions League.

However, neither the car industry nor airlines are the dominant sectors in the economics of football. **Betting shops are more than 40 percent (%) of the top 50 most valuable teams' shirts** according to Brand Finances, although most teams are qualitatively less important.

1.3. Television in the football economy

The economic impact of football is determined by the **distribution of television rights, which follows different patterns**. In Spain, far from being an exception, it seems clear that exorbitant prices are creating a bubble that certainly does not reflect the yield on the investment. Mediapro bought the rights to the Champions League and the Europa League until 2021 year for almost **€ 1.1 billion**. Telecommunications operators like Vodafone and Orange do not seem willing to match such high bids and Movistar has finally acquired the broadcasting rights for the Spanish La Liga for the next three seasons for **€ 2.94 billion**.

There have been constant rumours about the interest of the Internet giants (Google, Amazon and Facebook) in acquiring these rights, but the football economy does not seem to be a priority for these companies. The situation of the La Liga broadcasting rights is not very different bearing in mind the proposal to increase revenues by **30 percent (%)** per season from 2019 to 2022 year, to total **€ 1.8 billion** a year in revenues.

1.4. The role of income from the sale of players (the transfer market)

Every summer or every winter, enormous amounts of money change hands as top football clubs vie for the best players (*Miriam Quick, 2017*). As we attempt to value the contribution of an athlete to a team's value and his or her consequent value on a player transfer market, it is important to be able to place player transfers in context.

Brazilian superstar Neymar recently moved from Football club Barcelona from Barcelona, Spain to Football club Paris Saint-Germain from Paris, France for **€ 222 billion**. This is more than double the previous record of **€ 105 billion**, paid for French player Paul Pogba from Football club Juventus from Turin, Italy to Football club Manchester United from Manchester, UK. And that was only set last year. PSG will then pay Neymar's wages – around **€ 45 billion** a year before tax – and hope to make a profit off his name and image.

1.5. The impact of revenue from sold tickets for competitions (sales marketing)

This is not to say that ticket sales are not important. They are still a major revenue stream and have a stronger potential impact on the perceived popularity of the team. That is, the more popular a team appears to be, the more fans they will generate, the more people they will draw to television sets, and the more merchandise they will sell. Empty stadiums have the opposite affect. But when it comes to pure revenue, media rights revenue is expected to reach **€ 20.6 billion** in 2019 year, compared to **€ 20.1 billion** for ticket sales (*Cork Gaines, 2015*).

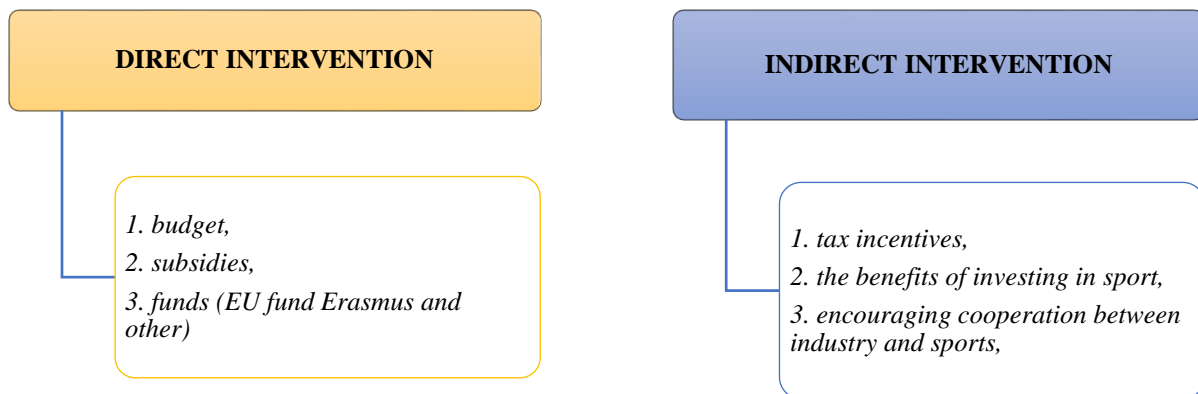
Sale of tickets is very profitable and important economic tool for each sport separately, but also there are major sports events (Olympic summer or winter game, World or European cup in all sport, Mediterranean game, etc.).

1.6. The relationship between the state and the sports economy

Sport as a social activity is an integral and integral part of every modern society. The state's attitude towards sport and sport management today is particularly important and is based on a wide engagement in almost all social areas. Sport as a planetary phenomenon is made up of economic, political, social and national interests. This is because it is essential for each country is the issue of systematic solving of relationships in the sport.

Every serious society is obliged to take institutional care of the sport, and to ensure the development and organization of the sport. In terms of how the state can support and support sport, especially in its management, there are two types of models of financing the sport:

- 1) **Direct intervention** (budget, subsidies, funds, etc.), and
- 2) **Indirect intervention** (tax incentives, the benefits of investing in sport, encouraging cooperation between industry and sports).



The interest of states should be to include budgetary policies in the system of financing sports for better economic benefits. Doing so would create a huge public interest in promoting sport better. Today, the economic power of the sport is reflected in sponsorships, advertising contracts, ticket sales, marketing and management, various grants, gifts, and more.

1.7. Conclusion

Social changes and digitization moving at high speed impose rapid transition and the need for policy changes and adaptation to European standards in almost all areas of operation of state institutions, especially in the economic policy of the sport.

Consequently, a need to adapt the sport to new social trends and movements. Time ahead of us requires adjusting to new ideas and models of both financing and sport management.

Because of that:

1. We need stronger links and connections between the sport and the business community especially in the area of sponsorship and mutual trust,
2. We need a new, modern way of advertising of sports products,
3. We need a new and modern way of using television and advertising rights through leases, and
4. There is a need for fair and efficient transformation of ownership of the sport, and
5. Finally, is a need greater economic efficiency for sports collectives.

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Investigation of Immediate and Delayed Effects of Bilateral Forearm Kinesio-taping on Maximal Hand Grip Strength in Female Volleyball Players

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Abstract

The aim of this study was to investigate the immediate and delayed effects of the kinesio-taping on the hand grip strength. Six-teen female volleyball players currently competing in Turkey Women's Volleyball 2. league (age 18.1 ± 2.3 years, height 172.9 ± 7.3 cm) voluntarily participated in this study. In cross-over research design, all participants participated in a total of 4 different measurements, immediately after kinesio-taping (1), immediately after placebo taping (2), after volleyball training (3), 48h post taping (4). In kinesio-taping, approximately 2-3 cm ends of kinesio-tapes were applied without tension, and the middle region was stretched by approximately 10-15% in "Y-shape". Hand grip strength measurements were made 4 times on different days that before kinesio-taping, immediately after kinesio-taping, immediately after training and 48 hours after taping with a portable handheld dynamometer. According to the results of the one-way repeated measures ANOVA, the kinesio-taping to forearm didn't elicit any significant changes in hand grip strength over the conditions ($p > 0.05$). The results of this study showed that the kinesio-taping in volleyball women did not have a significant effect on immediate, right after training and 48 hours after taping, compared to tapeless control measurements in dominant and non-dominant maximal hand grip strength.

Keywords: isometric hand grip strength, kinesiotaping, immediate effect, delayed effect

1. Introduction

The kinesiological tape was created by the Japanese chiropraxia and acupuncturist Dr. in 1973. Developed by Kenzo Kase. While standard tape and tape applications support joint and muscle structures, they cause restrictions in joint movements and functional activities. In addition, these taping methods sometimes slow the healing of the damaged tissue with their compressive effect on the tissue to which they are applied and do not provide support for deep tissues such as fascia. The philosophy of the emergence of the method is that it can achieve more successful results in a taping method similar to the structural properties and flexibility of the human skin without limiting joint movements. Dr. In contrast to these counted effects of bowl conventional bands, he began to search for a taping method that did not limit the range of joint motion while starting the early 1970s, and designed a kinesiological tape as a result of a two-year research and started to apply the methods he developed in different body regions. Kinesiological tape is different from other tapes because it is light, sticky, elastic and has the characteristics of leather. It does not contain chemical substances that have pharmaceutical properties. The risk of allergies of these tapes in various colors is very low. The applied person can stay for 2-7 days. It integrates with the skin and supports the structures under the skin. Due to its porous structure, it also provides aeration of the skin. It does not prevent the movement of the person in any way. Although they have different colors, there is no difference in terms of effect (according to Traditional Chinese Medicine, some differences related to colors have been defined). It is used in orthopedic and neurological conditions with many pain and loss of function.

Kinesio-tape applications mainly affect the nervous system, musculoskeletal system and circulatory system. In clinical studies related to the application of kinesio-taping (KT), it was concluded that joint pain mostly resulted from the loss of the normal structure of the muscle and myofascial tissue surrounding the joint. Inflammation, bloating or spasm caused by various reasons in the muscles cause narrowing of the space between the skin and the muscle. The decrease in the gap causes especially lymphatic fluid flow and stimulation of pain receptors. With the taping method, the tissue between the skin and the muscle is pulled up and the gap between the skin and the muscle is increased, and painless movement is provided. Thus, improvement is supported. These tapes offer solutions without side effects to many problems, from muscle aches to helping relieve edema in the body.

Hand dynamometers are special medical instruments designed to evaluate and measure the maximum isometric strength of your hand and forearm muscles. It is often used in athletics as well as strength training programs and sports such as baseball, tennis, rock climbing, which is used for throwing, catching or lifting. It is also an important rehabilitation tool. They help you assess the strength of the individual by evaluating the muscles used during strong contractions. It is an independent device developed to be used like traditional hydraulic hand dynamometers. With the additional ability to store power test results in memory, power testing can be done and the results are reviewed and saved after all tests are completed. It is extremely durable and designed to last for many years.

There is an idea that kinesio-tape application will increase joint motion angle and positively affect joint motion perception by stimulating the cutaneous mechanoreceptors (Çeliker et al., 2011). In addition to the results indicating that kinesio-tape application has no effect on proprioception (Halseth et al., 2004), there are study results (Chen and Lou, 2008) that demonstrate that the movement only increases proprioceptive ability in the middle angles. There are also studies indicating that KT has a negative effect on joint angle perception in 90° shoulder elevations, and 50 and 100° do not have any positive or negative effects (Aarseth et al., 2015).

2. Method

This research has volunteered to 16 female athletes Turkey Women 2. Volleyball league (age 18.1 ± 2.3 years, height 172.9 ± 7.3 cm, weight 62.6 ± 7.6 kg, BMI 20.9 ± 1.5 kg/m²). As a criterion for inclusion in the study, the participant has at least three years of national volleyball competition experience with no neuromuscular disease, no history of ligament, tendon, connective tissue, neuromuscular injury, upper extremity soft tissue or bone fracture in the wrist and in the article, female individuals between the ages of 18-24, who used their right hand, were included in the study. Those with irritation or open wounds in the upper skin in the area where the kinesio-tape is applied, those who have metabolic, cardiac, pulmonary diseases, those who use drugs that affect heart rate or blood pressure, those who have systemic, neuroplastic, inflammatory conditions, structural back anomalies and any such health problems. not included in this study. This research has been approved by the Ethics Committee of Non-Interventional Clinical Research Ethics Committee of Eskişehir Osmangazi University (Number: 25403353-050.99-E.121522, Decision no: 31, Decision date: 06.11.2018).

All participants confirmed that they were informed by signing the pre-study information form and that they voluntarily participated in this study. All the processes of the research were carried out in accordance with the Helsinki Declaration, Ethical Principles of Human Research. After obtaining the ethics committee approval for the research, all participants participated in the trial and promotion session, where they were applied to the tests and applications. About 10 days after the trial and promotion session, the tests of the study started. Measurements were made at the same time of the day and by the same expert researcher. In this research using cross-over research design, all participants participated in a total of 3 different measurements, immediately after placebo taping (1), immediately after kinesio-taping (2), after routine volleyball training (3), and 48h post taping (4). Measurements were taken at least 72 hours apart. They were told not to consume caffeinated or alcoholic beverages, take drugs, and continue their routine nutrition and hydration within 24 hours before the test days.

2.1. Taping Technique

Kinesio® Tex Gold (Kinesio USA, Albuquerque, NM) cotton, water resistant and latex-free elastic band with a width of 5cm was used for the taping technique. Before the taping, the application area was cleaned with alcohol and dried. Taping procedure is applied to the wrist flexor muscles in the right and left forearms, while individuals are in a standing position. Kase et al. (2003) the protocol proposed for elbow medial epicondylitis was implemented. In KT, approximately 2-3 cm ends of kinesio-tapes were applied without tension, and the middle region was stretched by approximately 10-15%. The tape was cut in “Y-shape” form according to the length of the participant's forearm region before taping. Before taping, individuals were asked to bring the wrist and elbow joint on the side where taping was applied to bring as much extension as possible and forearm to supination. The single end of the “Y-shape” tape was

applied on the skin, starting from the insertion region of the flexor muscles at the anterior distal of the forearm, and the double end ending approximately 2 cm inferior part of the medial epicondyle of the humerus in the origo region. In placebo taping, the kinesio tape cut in the form of “I-shape” of approximately 10 cm was applied tensionlessly perpendicular to the direction of the forearm flexor muscles to the approximately 5 cm inferior part of the medial epicondyle (Figure 1). If they feel uncomfortable for any reason or need removal, they are said to be free to remove, and these participants were excluded from the study.

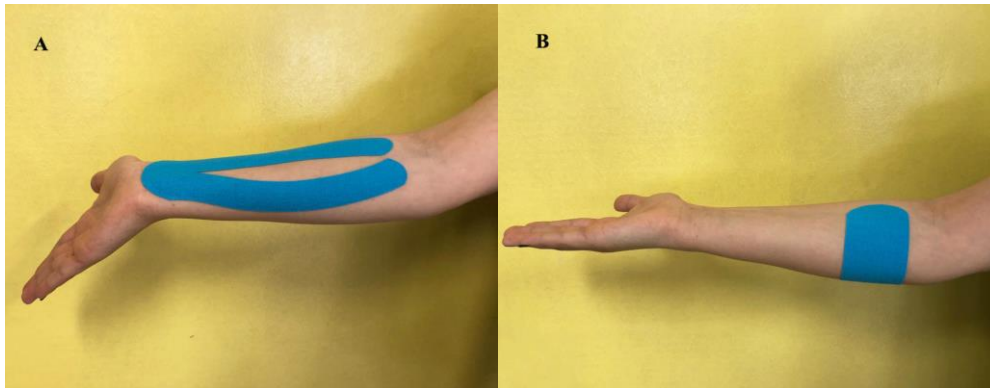


Figure 1. “Y-shape” Kinesio tape application A) experimental application, B) placebo taping

2.2. Hand Grip Strength Tests

Hand grip strength measurements were assessed to 4 times on different days before KT, immediately after KT, immediately after training and 48 hours after taping. Hand grip strength is assessed with a portable hand grip strength gauge dynamometer (Takei Ltd.). The participants were asked to squeeze the grip of the dynamometer's arms as strongly as possible for 5 seconds. Measurements were made in standing position, shoulder approximately 20-30° abduction, no rotation, forearm in neutral position, elbow and wrist in 0° extension. During the measurements, participants were verbally encouraged. Measurements that were measured twice at one minute intervals were recorded for great value analysis (Chang et al., 2010).

3. Statistical Analysis

A one-way repeated measures ANOVA was conducted to determine whether there was a statistically significant difference in hand grip strength over the 4 different conditions. There were no outliers and the data was normally distributed for each condition, as assessed by Shapiro-Wilk test ($p > .05$). Mauchly's Test of Sphericity indicated that the assumption of sphericity had not been violated for dominant and non-dominant hand grip strength $\chi^2(5) = 7.904$, $p = .165$, $\chi^2(5) = 5.691$, $p = .341$, respectively.

4. Results

According to the analysis the KT to forearm did not elicit any statistically significant changes in hand grip strength over the conditions, $F(3, 17) = 0.847$, $p = 0.480$, partial $\eta^2 = 0.086$, $F(3, 27) = 1.441$, $p = 0.253$, partial $\eta^2 = 0.138$, respectively. Hand grip strength values little changed from 30.2 ± 1.5 and 27.4 ± 2.4 kg at control condition to 30.4 ± 3.5 and 28.9 ± 4.0 kg immediately after the taping to 30.6 ± 3.1 and 27.9 ± 2.2 kg 48 hour after taping to 31.1 ± 2.6 and 28.6 ± 3.3 kg, respectively (Figure 2).

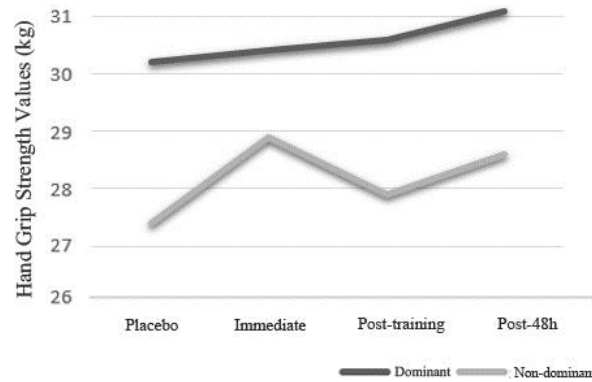


Figure 2. Hand grip strength changes after KT on fore arm flexor muscle group

5. Conclusions

The results of this study showed that the application of kinesio-tape in volleyball women did not have a significant effect on immediate, right after training and 48 hours after taping, compared to tapeless control measurements in dominant and non-dominant maximal hand grip strength.

Fu et al. (2008) stated that KT has no effect on isokinetic knee strength immediately and after 12 hours. Fratocchi et al. (2013) stated that kinesio-taping has positive effects on concentric and eccentric biceps muscle strength in immediate young and healthy individuals. According to these studies, the difference in KT applications explains the diversity in the results.

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The Second Difference in Rail Temperature of Continuous Welded Rail

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Abstract

Surveying and diagnostic monitoring provides information on the current state of the rail transport infrastructure and superstructure. Effective control of the safety of infrastructure, and especially of the exploitation of Continuous Welded Rail (CWR), depends to a large extent on the quality and quantity of data characterising its operation. The rails in CWR are exposed to the effects of changing weather conditions during exploitation. Their exploitation temperatures depend mainly on the time of day and year. The distribution of temperatures on the rail section under exploitation conditions is varied, which creates a complex state of stress inside the rail.

The article presents the results of temperature measurements of rail type S49 (49E1) using an electronic thermometer type TPM-10 with a measuring probe. Temperatures were measured in the period December – May (Winter – Spring) at fixed time intervals and at the same measuring point. Field studies were conducted: inside the rail head (crown of the rail), on the upper rolling surface – outside the rail head, additionally the ambient temperature was monitored. The aim of the research was to show the influence of the differences in temperature values of the rail from three measurement epochs on its condition.

The dependence of the first and second difference in temperature of Continuous Welded Rail was shown referring to thermal loads of the rail through periodic average values of temperatures. The authors, on the basis of the conducted research, defined the indicator of the second temperature difference railway rails in Continuous Welded Rail T_{gCWRII} ; this indicator is also called the temperature gradient CWR. The results of the tests confirmed the validity of using the temperature gradient CWR indicator during analyses and assessments of its condition. The developed indicator of second temperature difference railway rails in Continuous Welded Rail T_{gCWRII} track rails is a supplement to the surveying and diagnostic monitoring. The paper presents the authors observations and conclusions, and was made as a part of statutory research of AGH University of Science and Technology No. 16.16.150.545.

Keywords: second difference rail temperatures indicator, temperature gradient CWR, first difference rail temperatures, periodic average rail temperature, Continuous Welded Rail, CWR, stress-free temperature, SFT, thermal stress, material fatigue

1. INTRODUCTION

Body temperature is the physical quantity of its thermal state. The change in temperature value is reflected in the surrounding environment. The temperature difference of rails in a Continuous Welded Rail (CWR) determines the transformational and safety process in the rail transport infrastructure and is an active element of infrastructure development in passenger and freight transport. It exists in the scope of conducted operation of the contactless track. The rail transport infrastructure is becoming increasingly modern and comfortable, providing modern solutions and higher quality of service for both passenger and freight transport. It requires surveying and diagnostic monitoring, which provides data on the condition of rail transport infrastructure.

The CWR is a structure in which successive rails are permanently connected to each other by electrofusion welding, thermite or arc welding. The length of a section of the Continuous Welded Rail is unlimited. **Track sections with welded or welded rails longer than 180 m are considered as Continuous Welded Rail** [1, 2]. Continuous joining of rails into often multi-kilometre-long tracks results in uneven thermal stresses along the track length due to changes in ambient temperatures. If the track is poorly maintained, variations in ambient temperatures increase the risk of deformation of the track grid (track frame), thus endangering operational safety. Monitoring of changes in rail temperature values enables conclusions to be drawn about the current state of stress in the central zone of the CWR and, consequently, early preventive measures to be taken against buckling (track buckling) or cracking. Additionally, depending on the rail temperature, a safe train speed is determined, which is almost the basic measure to prevent rolling stock derailment. Berbey et al. in [3] refer to metro lines, proposing a new stability indicator based on the Lyapunov method for designing a real-time schedule change algorithm. The temperature condition of the rails in the Continuous Welded Rail has an influence on decisions to limit the speed of passing trains, which are duly reflected in the timetable.

The temperature distribution of CWR rails is not uniform, which significantly complicates the precise definition of measurement principles. The selection of a representative measuring point should take into account the average deformation associated with an uneven temperature distribution [4].

From the point of view of improving the safety of rail transport, it is useful to be able to predict local changes in rail temperature values depending on the forecasted weather conditions. To date, many different models have been developed for predicting rail temperatures, including a model that takes into account the influence of sunlight, which is currently considered to be the most accurate [5-9].

In addition to temperature fluctuations, an additional factor that increases the probability of a track failure is the alternating mechanical load (static and dynamic) generated by the track exploitation. In particular, as a result of their superposition, some parts of the element may be damaged [10]. The monitoring of changes in their value allows for choosing the optimal character of maintenance works which support the proper work of the track.

Temperature jumps causing changes in thermal stress also modify the dynamic parameters of the track e.g. natural frequency. The observations of correlation between these phenomena enabled developing a calculation model which, on the basis of the track dynamic characteristics, allows to deduce the current state of stresses inside the structure [11, 12].

The irregular temperature distribution is also an additional load on bridge structures with large spans. The problem in this case is the difference in thermal deformation of the rail and the bridge support structure. Its solution in the form of the installation of compensating devices in Continuous Welded Rail (breather and special expansion switches for the CWR) may cause local stiffness disturbances of the track and requires periodic technical inspections. However, if the analysis of the interaction of the track with the bridge object takes into account the temperature gradient values of the bridge and the rail, it will be possible to design other, much more favourable structural solutions, particularly relevant for high-speed rail construction [13]. This shows that it is possible to achieve measurable benefits from the proper processing of thermal data of the object. Liu et al. in [14] refer to the longitudinal seismic response of continuously welded track on railway arch bridges. They note that the seismic response of continuously welded track on bridges is experiencing increased interest. Taking the railway deck arch bridge as an example, a track-bridge spatial coupling finite element model was established, and the effects of arch rib temperature difference and bridge span layout on rail seismic force were analysed. They found the results show that the peak rail seismic force is larger than the maximum expansion force. This subject was also referred to by Wang et al. in [15], leading shaking table testing and numerical modelling of continuous welded ballast track on bridges under longitudinal seismic loading. Dybel and Kampezyk in [16] referred to surveying monitoring of bridge structures in the longitudinal slide-in technology. They draw attention to the existing threats to the structure of bridges. They state that in order to ensure safety of the construction of a building structure and safety of its maintenance, surveying activities related to geodesic determination of the object and its ground displacement and measurements of object deformations are performed. In turn, Shao et al. in [17] propose a new method which has been to accurately determine longitudinal additional force in Continuous Welded

Rail on bridges via hetero-cladding fibre Bragg grating (HC-FBG) sensors. The subject of Track-Bridge Longitudinal Interaction of Continuous Welded Rails on Arch Bridge matter was also addressed in [18]. Based on the Finite Element Method (FEM), the longitudinal interaction calculation software of CWR on arch bridges has been developed.

Dybel and Kampczyk in [19] referred to the as-built survey inventory of a building object. They stated that it is very important to carry out surveying works in the process of exploitation, which should be referred to the zero measurement, which is a reference to subsequent control measurements.

Predicting changes in the position of the Continuous Welded Rail is one of the most important scientific issues, reflected in the exploitation of linear object rail transport infrastructure. **The conducted literature research showed the lack of direct analyses and evaluations of the measurement of the second rail temperature differences in the CWR.** The authors have carried out periodic field tests in this area, allowing for the implementation of the indicator of second temperature differences of rails in Continuous Welded Rail (temperature gradient CWR) T_{gCWRH} .

The following hypotheses were verified in the conducted research:

1. Relationship between the first T_{gCWRH} and the second T_{gCWRH} temperature difference of CWR rails
2. Possibility to use the indicator of second temperature difference of rails in Continuous Welded Rail T_{gCWRH} in surveying and diagnostic monitoring of CWR
3. Possibility to ensure the 24-hour rail operation
4. To use the indicator of the second temperature difference of rails in the Continuous Welded Rail T_{gCWRH} to indicate the places where thermal stress changes take place
5. Possibility of optimisation and universality of application of temperature gradient CWR indicator

The paper presents a method of rail temperature measurement type S49 (49E1) using an electronic thermometer type TPM-10 with a single measuring probe. The research was conducted from December 2018 to May 2019 (Winter – Spring) in the Małopolskie Voivodeship, Krakow, Poland. Temperature values were observed at fixed intervals and at the same measuring point:

- Inside the rail head (crown of the rail)
- Outside the crown of the rail (on the upper rolling surface)
- Ambient

The aim of the research was to show the influence of the differences in temperature values of the rail from three measurement epochs on its condition. The relationship between the first T_{gCWRH} and the second T_{gCWRH} temperature difference of Continuous Welded Rail rails was shown, referring to thermal loads of the rail through periodical average values rail temperature T_{sr} . The authors defined the indicator of the second temperature difference of railway rails in Continuous Welded Rail T_{gCWRH} , also called temperature gradient CWR. Reference was made to the effects of using T_{gCWRH} in rail transport infrastructure. The research has shown that the introduction of the indicator of the second temperature difference in Continuous Welded Rail T_{gCWRH} during analyses and assessments of the state of the CWR is significantly justified. The paper presents the authors' observations and conclusions, and was made as a part of statutory research of AGH University of Science and Technology No. 16.16.150.545.

2. DEFINITION OF THE INDICATOR FOR THE SECOND DIFFERENCE IN RAIL TEMPERATURE OF CONTINUOUS WELDED RAIL

Thermal stresses are a significant load on the Continuous Welded Rail structure. By limiting the possibility of free longitudinal movements of the rails (e.g. by fixing the rails to sleepers) in the central part of the Continuous Welded Rail, stresses arise, the type and value of which depend on the rail temperature. In order to calculate the stress values in accordance with the actual state of affairs, it is important to correctly determine the reference temperature at which the structure is free from thermal stress – the so-called stress-free temperature (SFT).

Practical observations show that during the day the stress-free temperature can vary by 2 – 3 °C [7]. In Poland, the process of laying long rails of Continuous Welded Rail should be carried out in the temperature range +15 °C to +30 °C, parallel to both rails [1]. All continuous welded rail (CWR) installed on a railway infrastructure is subject to internal stresses caused by seasonal variations in temperature. In order to prevent the possibility of track buckles due to expansion, or rail breaks due to contraction, all CWR on the rail network needs to be stressed to an SFT. This is defined in Britain as being within the range of +21 °C to +27 °C (+27 °C to +32 °C for crimp ended steel sleepers) [20].

The first difference in rail temperature of Continuous Welded Rail T_{gCWR1} includes the difference: $T_2 - T_1 = \Delta T_{1,21}$ and $T_3 - T_2 = \Delta T_{1,32}$, where T_1 , T_2 and T_3 are the values of rail temperatures during the different measurement epochs.

The second difference in rail temperature of Continuous Welded Rail – also called the temperature gradient CWR – is an indicator of the rail condition. It determines the differences in rail temperature values obtained from three measurement epochs at fixed time intervals Δt and at the same measurement point.

The value of the indicator for the second temperature difference of rails in Continuous Welded Rail T_{gCWR2} defined by Equation (1):

$$T_{gCWR2} = (T_2 - T_1) - (T_3 - T_2) \tag{1}$$

where:

T_{gCWR2} – indicator for second difference rail temperatures in the Continuous Welded Rail (temperature gradient CWR)

T_1 – the temperature value in the first measuring epoch

T_2 – the temperature value in the second measurement epoch

T_3 – the temperature value in the third measuring epoch

This indicator is a quantitative estimation of the change in stress growth over the measurement time. The temperature gradient CWR values are expressed in °C or °F.

The first T_{gCWR1} and the second T_{gCWR2} temperatures rails indicator for Continuous Welded Rail determines the 24-hour rail operation.

3. MEASUREMENT METHODOLOGY

The device used to measure the temperatures is a thermometer. Many types of thermometers are currently available. Each of them uses certain thermal properties of the body, i.e. measures physical quantities that change under the influence of temperature. Figure 1 above shows the classification of temperature measuring devices.

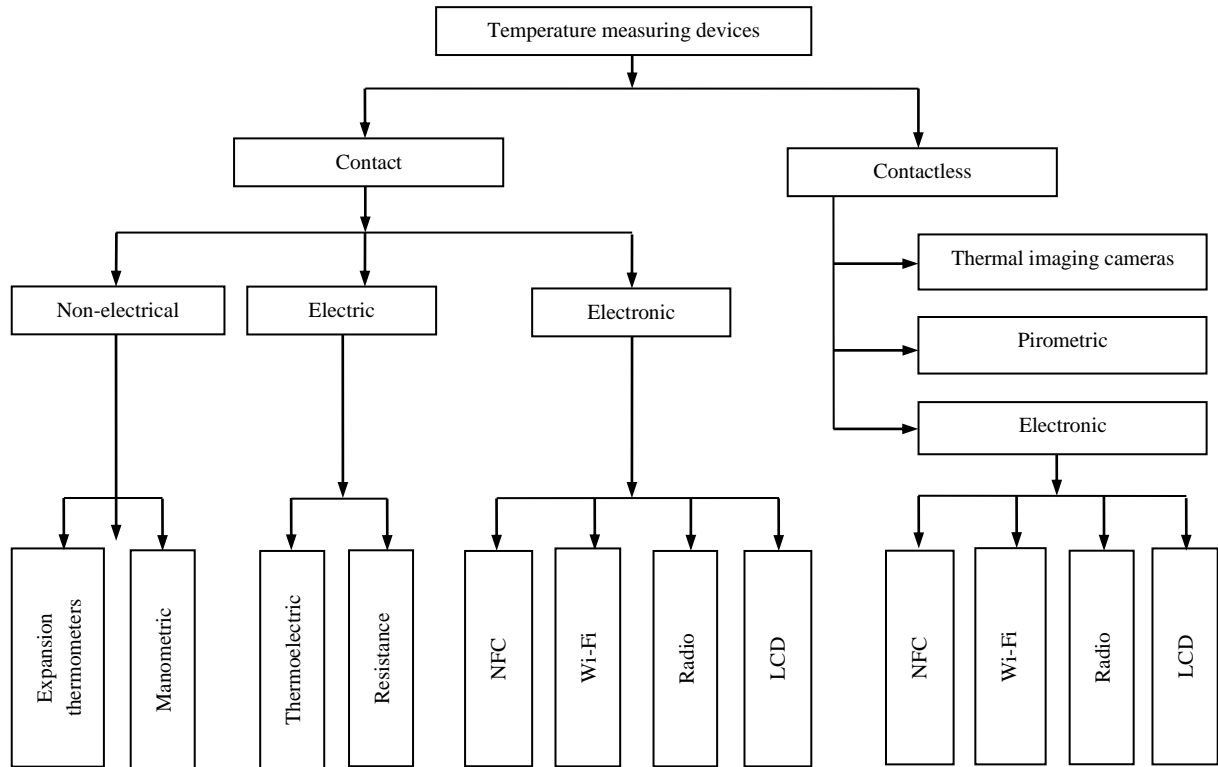


Fig. 1. Classification of temperature measuring devices, where:
 NFC – Near Field Communication; Wi-Fi – Wireless Fidelity; LCD – Liquid Crystal Display with display (own Figure)

In order to obtain the temperature gradient CWR indicator, a measuring station was established, including: rail section ≈ 300 mm long, type S49 (49E1) (Table 1) and electronic thermometer TPM-10 with a measuring probe (Table 2) (Fig. 2). The TPM-10 thermometer is a contact thermometer, electronic with Liquid Crystal Display (LCD). Temperature readings were taken inside crown of the rail and on its upper rolling surface. The rail had a hole in the crown of the rail with a diameter of $\phi 25.0$ mm and a depth of 228 mm (Fig. 3).

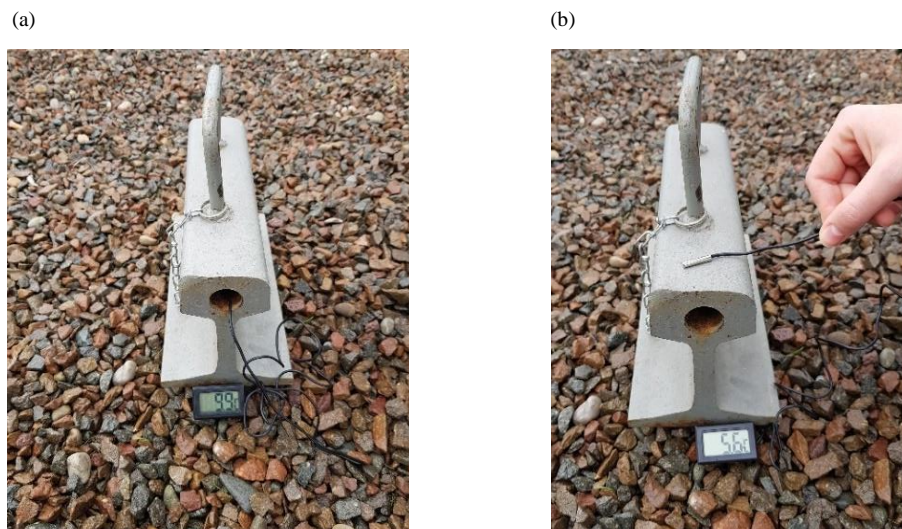


Fig. 2. Measuring station with rail type S49 (49E1) (own photograph):
 (a) electronic thermometer with probe inside crown of the rail;
 (b) electronic thermometer with probe on top of the surface rolling crown of the rail

2. The web rail – 70 μm
3. The foot rail – 60 μm

Before the thickness of the top coat of paint was measured, the coating thickness gauge was calibrated (Fig. 4a), using a calibration gauge plate for FE-200 μm steel (Fig. 4b).

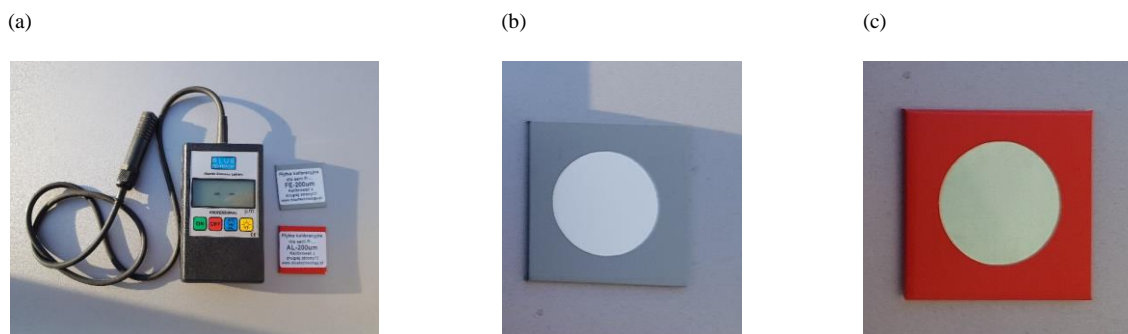


Fig. 4. Coating thickness meter with probe and calibration plates (own photograph):
 (a) the meter;
 (b) calibration plate for FE-200 μm steel;
 (c) calibration plate for AL-200 μm aluminium



Fig. 5. Measurement of the paint film thickness on a rail type S49 (49E1) (own photograph):
 (a) on the head/crown of the rail; (b) on the neck; (c) on the foot

The probe of the TPM-10 thermometer was placed inside the crown of the rail, in the middle of its length. Temperature measurements were carried out in three measurement epochs. Additionally, the research included temperature measurement of:

- The external surface of the crown of the rail (on the upper rolling surface) using a probe
- Ambient

The temperature gradient CWR values are expressed in $^{\circ}\text{C}$. During the research period, the measuring station was located in the field conditions.

In addition, as part of the preliminary analysis of the thermal stress distribution in the rail, simplified S49 (49E1) rail models were developed in Abaqus software. In order to develop the models, a permanent fixation of the analysed section was assumed on both sides. A model for a fixed temperature value of 0°C was considered ($\Delta T_{1,21}$ – temperature difference between the second and the first measurement epoch was 0°C , $\Delta T_{1,32}$ – temperature difference between the third and the second measurement epoch was 0°C , Fig. 6a) and a model for temperature increase to $+10^{\circ}\text{C}$ and cooling to 0°C ($\Delta T_{1,21}$ – temperature difference between the second and the first measurement epoch was $+10^{\circ}\text{C}$, $\Delta T_{1,32}$ – temperature difference between the third and the second measurement epoch was 0°C , Fig. 6b).

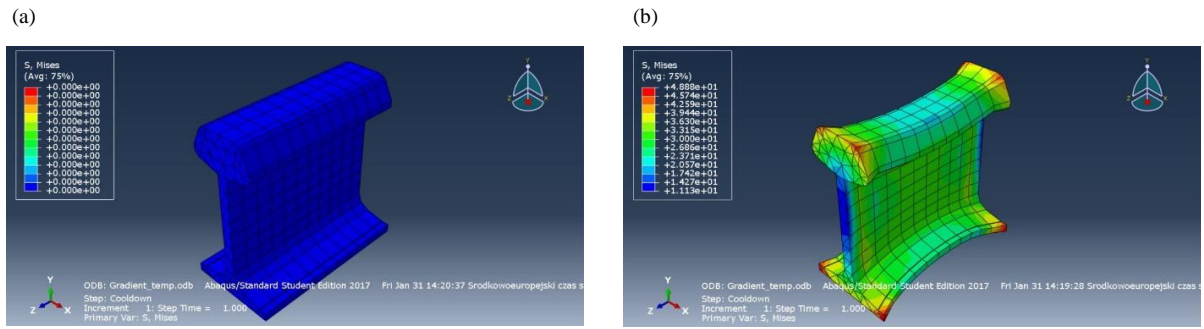


Fig. 6. Schematic analysis of thermal stress distribution in S49 rail (49E1) (own elaboration):

(a) fixed temperature value of 0 °C; (b) heating to 10 °C and cooling to 0 °C

4. EFFECTIVENESS INDICATOR TEMPERATURE GRADIENT CWR

Rails are exposed to changing weather conditions during operation. The temperatures at which they work depend mainly on the time of day and year. The distribution of temperatures on the rail section (under exploitation conditions) is varied, creating a complex state of stress in the middle of the rail (Fig. 6). The dominant part of the thermal stress is related to its axial deformability. As a result of the periodic change of the average temperature value of the rail, its length changes. The limited freedom of rail deformation as a result of its fastening to sleepers or the way of joining successive segments causes axial stress in the rail. If there are no longitudinal displacements of the rails in the central zone of the non-contact track, the stresses arise, which can be described by formula (2) [21]:

$$\sigma = \alpha E (SFT - T) \tag{2}$$

where:

- σ – thermal stresses [MPa]
- α – thermal expansion coefficient [1/°C]
- E – modulus of elasticity (Young's modulus) of steel [MPa]
- T – rail temperature [°C]
- SFT – stress-free temperature at which no thermal stress occurs [°C]

The change in rail temperature over time is proportional to the increase in thermal stress in the rail. Assuming that the rail temperature is measured cyclically at equal time intervals for individual measurement epochs T_1 , T_2 and T_3 (e.g. morning, noon, evening), the denominator of the formula (3) Δt is a constant value:

$$\frac{\Delta T_I}{\Delta t} \sim \frac{\Delta \sigma}{\Delta t} \tag{3}$$

where:

- ΔT_I – the temperature difference between the two measurement epochs
- Δt – the time interval between the two measurement epochs
- $\Delta \sigma$ – the increase in thermal stress in the rail

The indicator of the second temperature difference in Continuous Welded Rail (I) developed by the authors is proportional to the change of thermal stress increase in the rail. Assuming that Δt is a constant value, the equation expressed by (4) is obtained:

$$\frac{T_gCWR_{II}}{\Delta t} = \frac{(T_2 - T_1) - (T_3 - T_2)}{\Delta t} = \frac{(T_2 - T_1)}{\Delta t} - \frac{(T_3 - T_2)}{\Delta t} = \frac{\Delta T_{I,21} - \Delta T_{I,32}}{\Delta t} \sim \frac{\Delta \sigma_{I,21} - \Delta \sigma_{I,32}}{\Delta t} \tag{4}$$

where:

- T_gCWR_{II} – the indicator second difference rail temperatures in the CWR
- Δt – time interval between two measurement epochs

T_1	–	the temperature value in the first measurement epoch
T_2	–	the temperature value in the second measurement epoch
T_3	–	the temperature value in the third measurement epoch
$\Delta T_{1,21}$	–	the temperature difference between the second and the first measurement epoch
$\Delta T_{1,32}$	–	the temperature difference between the third and the second measurement epoch
$\Delta \sigma_{1,21}$	–	the increase of thermal stress in the rail between the second and the first measurement epoch
$\Delta \sigma_{1,32}$	–	the increase of thermal stress in the rail between the third and the second measurement epochs

In the context of the thermal load analysis of the rail, the average values of the temperatures during a given observation period are also relevant. In order to determine this value, the Mean Value Theorem for Integrals [22-24] (5) should be used:

$$f(c) = \frac{1}{b-a} \int_a^b f(x) dx \tag{5}$$

if $f: [a, b] \rightarrow R$ is a continuous function, then there is an element $c \in [a, b]$ with this property.

The number $f(c)$ is then called the **Mean Value for Integrals function** f in the range $[a, b]$.

Thus, the periodic average rail temperature value from the three measurement epochs T_{sr} is equal to (6):

$$T_{sr} = \frac{T_1 + 2T_2 + T_3}{4} \tag{6}$$

where:

T_1	–	the temperature value in the first measurement epoch
T_2	–	the temperature value in the second measurement epoch
T_3	–	temperature value in the third measurement epoch

Referring to formula (4), an alternating thermal load creates an alternating stress state in the rail. Daily temperature fluctuations within a given season make these changes quasi-cyclical. Within one day the rail is usually heated to a certain temperature to give up part of the accumulated heat. The rate of these changes is represented in the indicator of the second temperature difference of the CWR T_{gCWRII} . It is a quantitative estimation of changes in stress growth over the measurement time. The T_{gCWRII} indicator will receive a value extremely different from zero if the temperature of the rail heats up and then cools down quickly during the day. It will fluctuate close to zero if the rail temperature during the day is maintained at a similar balanced level. A set of two indicators, i.e. the first T_{gCWRI} and the second T_{gCWRII} temperature difference of Continuous Welded Rail allows to obtain data on daily rail exploitation. The first difference of T_{gCWRI} shows the scale of the stress phenomenon, while the second difference of T_{gCWRII} informs about its course. This information is important because of the need to estimate "currently the critical stress-strain state" rail. The second T_{gCWRII} difference in rail temperature indicates the change in stress over a given measurement period, i.e. the change in rail stress level over time. The cyclicity of the load must be taken into account when assessing the fatigue resistance of the material.

T_{gCWRI} and T_{gCWRII} indicators are useful when estimating the life of a rail. Together with the changing SFT, they allow for deducing changes in the stress state of the rail during its operation. It should be noted that the thermal impact on the rail is only one of many to which it is subjected (others include mechanical load, geometric overstress, self-tension, etc.).

Thermal loads should be classified as static. Thus, when assessing fatigue strength, the most important parameter is the stress amplitude in relation to the number of load cycles [25].

5. RESULTS AND DISCUSSION

Observational research was conducted mainly on the days of forecasted weather changes. Such an approach ensured the recording of data on the condition of rail temperature values at the moments of their jumping changes, therefore increasing the probability of confirmation of the demand for implementation of the indicator of second differences in rail temperature T_{gCWRII} in CWR for basic analyses of exploitation of Continuous Welded Rail rails.

In order to obtain real temperature values for T_{gCWRU} , measurements and observations were carried out in three measurement epochs at fixed time intervals Δt and at the same measurement point. The measurement epochs included temperature recording: morning T_1 , noon T_2 and evening T_3 inside the crown of the rail.

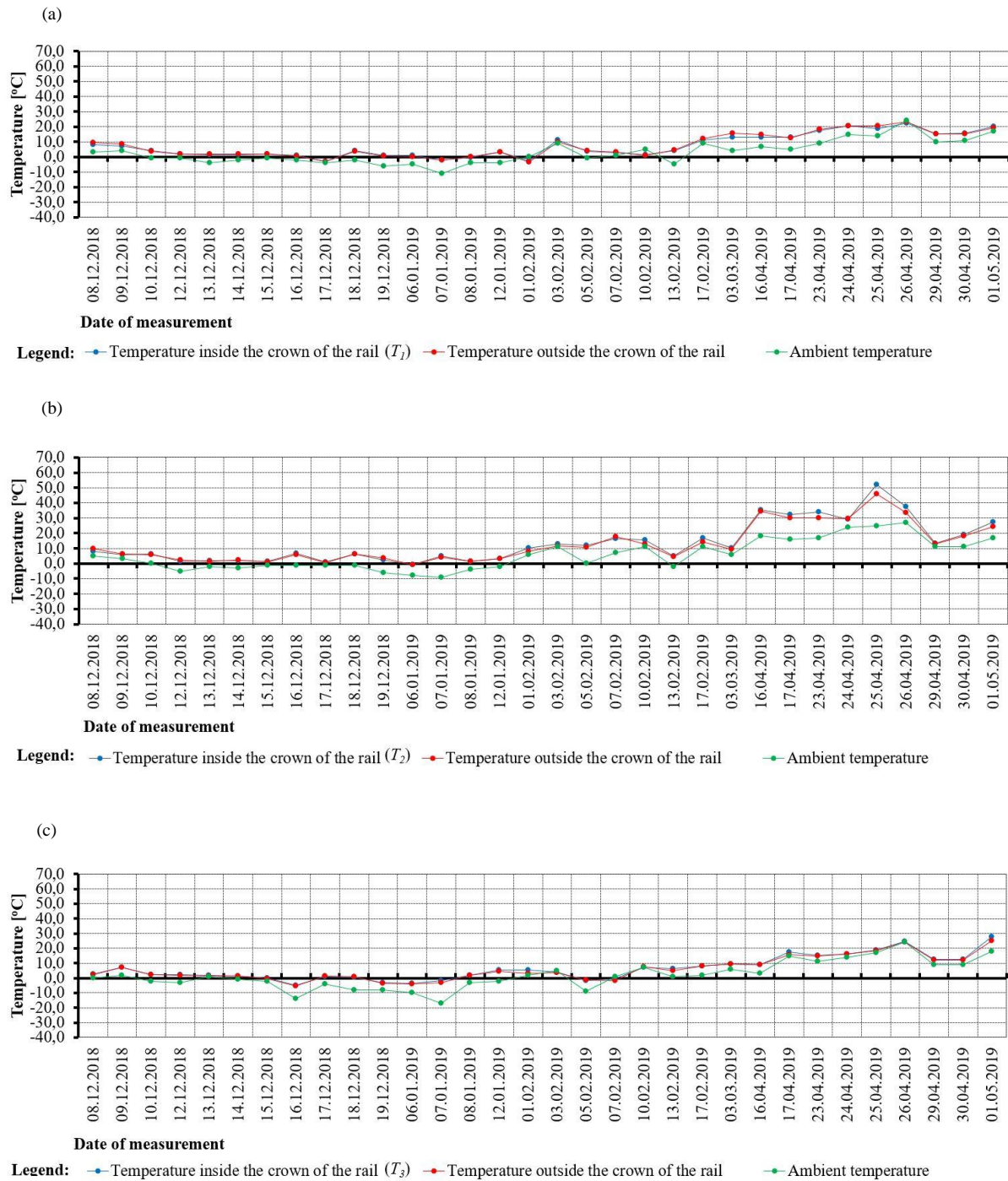


Fig. 7. S49 (49E1) type rail temperature graph (own Figure): (a) morning; (b) noon; (c) evening

Received was a dependence of the temperature condition values between the inside of the crown of the rail, its external surface and the environment (Fig. 7). Calculation of the index of second temperature differences of rails T_{gCWRU} in Continuous Welded Rail was carried out according to formula (1) with data from the three measurement

epochs. Table 3 presents the selected data of rail temperature values from the three measurement epochs T_1 , T_2 , T_3 and calculations of T_{gCWR1} and T_{gCWR11} .

The diagrams (Fig. 7) show a very high susceptibility of rail steel to ambient temperature changes. In addition, the location of the measuring probe is also not without significance. As a result of strong sunshine on 25.04.2019, the temperature difference between the measurement inside and outside the crown of the rail has increased significantly above the average value level to 6 °C (Fig. 7b). In [26] Makowski draws attention to the uneven distribution of temperatures inside the rails, referring to the higher temperature of the rail head in relation to the shaded foot, which can reach even 12 °C, which contributes to the formation of stresses of 14.70 MPa. Similarly, in [4] the authors claim that the maximum change in the internal temperature of the rail may exceed even 7 °C.

With temperature values inside the crown of the rail from three measurement epochs: T_1 - morning, T_2 - noon and T_3 - evening, the first differences of daily temperatures of the T_{gCWR1} rail during the winter and spring period were calculated. The graphical interpretation is illustrated in Figure 8.

Table 3. S49 (49E1) rail temperature values of the three measurement epochs T_1 , T_2 , T_3 and T_{gCWR1} and T_{gCWR11} calculations (own elaboration)

Date of measurement	Temperature inside the crown of the rail Morning T_1 [°C]	Temperature inside the crown of the rail Noon T_2 [°C]	Temperature inside the crown of the rail Evening T_3 [°C]	First difference rail temperatures T_{gCWR1}		Second difference rail temperatures indicator
				$T_2 - T_1$	$T_3 - T_2$	T_{gCWR11}
				=	=	[°C]
				$\Delta T_{1,21}$	$\Delta T_{1,32}$	
				[°C]	[°C]	
13.12.2018	1.3	1.9	1.9	0.6	0.0	0.6
16.12.2018	0.8	6.8	-4.9	6.0	-11.7	17.7
10.02.2019	1.6	15.6	7.1	14.0	-8.5	22.5
16.04.2019	13.0	35.2	9.1	22.2	-26.1	48.3
25.04.2019	19.0	51.9	19.0	32.9	-32.9	65.8
29.04.2019	15.4	13.4	12.4	-2.0	-1.0	-1.0
01.05.2019	20.2	27.6	27.9	7.4	0.3	7.1

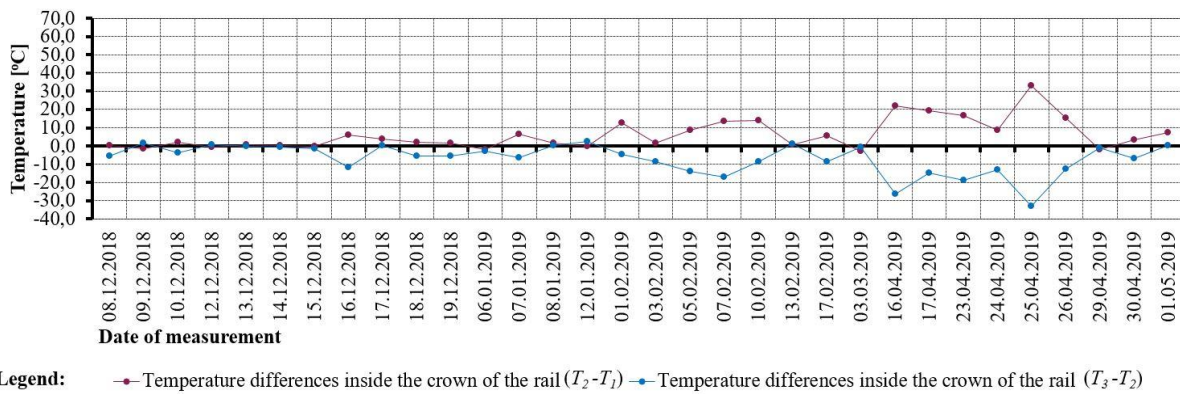


Fig. 8. Graph of first difference rail temperatures T_{gCWR1} winter – spring (own Figure)

The stage of determining the temperature peaks inside the crown of the rail has shown that in the afternoon the temperature differences are greatest, and in early spring they increase more and more (Figure 8). This period is dangerous for the slender and continuous construction of Continuous Welded Rail.

Having the values of the first daily temperature differences T_{gCWR1} , the indicator of the second temperature differences T_{gCWR11} of the Continuous Welded Rail was calculated according to the formula (1), obtaining a graphical interpretation (Fig. 9) during the winter – spring period. Additionally, Fig. 9 contains the course of the periodic

average temperature of the T_{sr} rail. The analysis of the obtained values of the index of the second temperature difference T_{gCWRH} and the periodic average temperature of the T_{sr} rail was assumed:

1. The second difference rail temperatures indicator is a quantitative estimation of the stress change over the measurement epochs
2. The periodic average rail temperature during the measurement period is analogous to the average value of thermal stress in the rail
3. Exceeding the limit values in the rail will result in damage to the rail or contribute to the deformation of the track
4. There is a permanent load on the track used by the rolling stock traffic resulting from the permissible values of the load capacities and axle loads of a given category of railway line

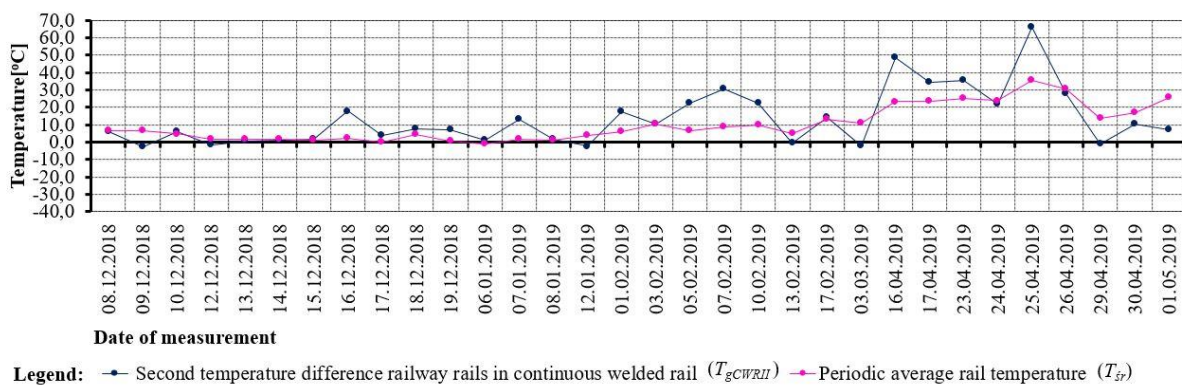


Fig. 9. Graph of the indicator of the second temperature difference of rails T_{gCWRH} in Continuous Welded Rail and periodical average rail temperature value T_{sr} – winter – spring (own Figure)

Analysis of the graphs of the second temperature difference T_{gCWRH} and the periodic average temperature T_{sr} (Fig. 9) is recommended when carrying out diagnostic evaluation of two different thermal states of the rail:

1. A high or low rail temperature is maintained, corresponding to the high or low periodic average temperature of the T_{sr} and at the same time close to zero of the second T_{gCWRH} temperature difference index (7):

$$\frac{T_1+2T_2+T_3}{4} \approx \max \vee \min \wedge (T_2 - T_1) - (T_3 - T_2) \approx 0 \tag{7}$$

- During the measurement period, the rail is subjected to considerable thermal stress. This means that during all this time, especially with the unfavourable participation of other interactions, there is a possibility of reaching undesirable "critical stress-strain state" – measurements as of 01.05.2019 (Fig. 9).

2. There are significant temperature fluctuations in the rail where the second temperature difference T_{gCWRH} reaches values far from zero (8):

$$(T_2 - T_1) - (T_3 - T_2) \approx \max \vee \min \tag{8}$$

- The rail undergoes significant changes in temperature load. It is particularly unfavourable due to material fatigue, e.g. measurements as of 16.12.2018, when the periodic average temperature T_{sr} is low and the gradient is high T_{gCWRH} (Fig. 9).

- A rail in which both the periodic average temperature of the T_{sr} rail and the indicator of the second temperature difference of the T_{gCWRH} rail reach values far from zero, which is the worst condition for rail operation. It takes place when "temperature peaks" are reached in a given measurement period, e.g. measurements from 25.04.2019, when the periodic average temperature of the T_{sr} bus is high and the gradient is also high T_{gCWRH} (Fig. 9).

The T_{gCWRH} indicator will receive a value extremely different from zero if, during the day, the temperature value of the rail quickly heats up and then quickly cools down (measurements of 25.04.2019, the gradient was $+65.8$ °C) (Table 3, Fig. 9). The T_{gCWRH} indicator, on the other hand, will oscillate close to zero if the rail temperature during the day is maintained at a similar balanced level. An example is the measurements of 13.12.2018 where the T_{gCWRH} was $+0.6$ °C (Table 3, Fig. 9).

As a result of creating a systematic database of values of the indicator of the second temperature difference of rails T_{gCWRH} in Continuous Welded Rail for selected measurement points of a given track, it is possible to determine the frequency and degree of stress state of non-contact track in a given period. In the case of receiving sensitive jump changes of the T_{gCWRH} indicator, it is also possible to increase the frequency of monitoring i.e. reducing the time of observation of the three epochs e.g. only for noon, morning or evening hours.

6. CONCLUSIONS

The scope of the research includes an innovative introduction of the indicator of second temperature differences T_{gCWRH} of Continuous Welded Rail. The value of the indicator of the second difference in rail temperature helps to manage not only the condition of the CWR, but also to manage the railway traffic, contributing to active development of the rail transport infrastructure. It is a priority in the scope of conducted operation of the Continuous Welded Rail.

The large difference between the temperature in the rail and the SFT causes a large deformation of the track. These deformations occur both horizontally and vertically, however they usually occur in the horizontal plane. They occur suddenly without any load on the rolling stock or under passing rolling stock due to high longitudinal forces. Buckling (track buckling) may also be caused by seismic movements, e.g. in mining areas. Temperature changes in the rails, together with rolling stock running on it and braking, can cause the rails to move – creeping of the rail.

The indicator of the second temperature difference T_{gCWRH} of the Continuous Welded Rail and the periodic average of rail temperatures T_{sr} provide monitoring of the daily rail operation status. The conducted tests confirmed the correctness of the hypotheses, thus proving that the T_{gCWRH} indicator is a basic element of safety of Continuous Welded Rail. It is reflected not only in the scope of surveying and diagnostic monitoring of the state of the geometry but also in the competitiveness of rail transport.

The presented T_{gCWRH} indicator can also be used to monitor the infrastructure of tramways, subways or other elements of internal rail transport.

The results of the research fit into the subject of contemporary civil engineering works and rail transport, especially developing contemporary research in the diagnostics of transport construction and in the surveying of rail transport.

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