

**THE REPUBLIC OF TURKEY
BAHCESEHIR UNIVERSITY**

**EVALUATION of TENDENCY to SHARE
KNOWLEDGE via SOCIAL MEDIA, on the BASIS
of HOFSTEDE's CULTURAL DIMENSIONS:
A COMPARATIVE STUDY within A
MULTINATIONAL CORPORATION**

Master's Thesis

ÖZGÜR BARIŞ ÖZER

ISTANBUL, 2019

**THE REPUBLIC OF TURKEY
BAHCESEHIR UNIVERSITY**

**GRADUATE SCHOOL of SOCIAL SCIENCES
MASTER of BUSINESS ADMINISTRATION PROGRAM**

**EVALUATION of TENDENCY to SHARE
KNOWLEDGE via SOCIAL MEDIA, on the BASIS
of HOFSTEDE's CULTURAL DIMENSIONS:
A COMPARATIVE STUDY WITHIN A
MULTINATIONAL CORPORATION**

Master's Thesis

ÖZGÜR BARIŞ ÖZER

Supervisor: Assoc. Prof. Dr. MUHTEREM ŞEBNEM ENSARİ

ISTANBUL, 2019

T.C.
BAHÇEŞEHİR ÜNİVERSİTESİ
SOSYAL BİLİMLER ENSTİTÜSÜ
MBA PROGRAMI

Tezin Adı: Evaluation of Tendency to Share Knowledge via Social Media, on the Basis of Hofstede's Cultural Dimensions: A Comparative Study within a Multinational Corporation

Öğrencinin Adı Soyadı: Özgür Barış Özer

Tez Savunma Tarihi: 15.05.2019

Bu tezin Yüksek Lisans tezi olarak gerekli şartları yerine getirmiş olduğu Sosyal Bilimler Enstitüsü tarafından onaylanmıştır.

Doç. Dr. Burak KÜNTAY
Enstitü Müdürü

Bu tezin Yüksek Lisans tezi olarak gerekli şartları yerine getirmiş olduğunu onaylarım.

Doç. Dr. Ela Ünler
Program Koordinatörü

Bu Tez tarafımızca okunmuş, nitelik ve içerik açısından bir Yüksek Lisans tezi olarak yeterli görülmüş ve kabul edilmiştir.

Jüri Üyeleri

İmzalar

Doç. Dr. Muhterem Şebnem Ensari

Doç. Dr. Elif Yolbulan Okan

Doç. Dr. Gül Eser

Doç. Dr. Melisa E. Karabay

ÖNSÖZ ve TEŞEKKÜR

Zorlu çalışma sürecinde sabırla bana yol gösteren tez danışmanım Doç. Dr. Muhterem Şebnem Ensari başta olmak üzere; iş yerimde anlayışla bana destek olan, yurtdışındaki iş ortağı kurumlardan veri toplanmasında ön ayak olanı yöneticim Mauro Pilia ile ekip arkadaşlarıma, bilhassa Yasemin Türkili'ye; ricamızı kırmayarak daha fazla insana iletilmesinde vesile olan tüm yöneticilerime ve çalışma arkadaşlarıma; en başından beri yanımda olan aileme sonsuz teşekkürlerimi sunarım.

Özgür Barış Özer

Mayıs, 2019



ÖZET

EVALUATION of TENDENCY to SHARE KNOWLEDGE via SOCIAL MEDIA,
on the BASIS of HOFSTEDE's CULTURAL DIMENSIONS:
A COMPARATIVE STUDY within A MULTINATIONAL CORPORATION

Özgür Barış Özer

Master of Business Administration Programı

Tez Danışmanı: Doç. Dr. Muhterem Şebnem Ensari

Mayıs 2019, 100 Sayfa

Hızla gelişen internet teknolojisinin bir sonucu olarak sosyal medya, bilgiyi paylaşmanın en kolay ve en hızlı araçlarından birine dönüştü. Örgütler, bunun çalışanlar içinde bilgi aktarımı için çok fazla şans sağladığını, aynı zamanda, örneğin; bilgi güvenliği vb. konular açısından bazı riskler getirdiğini fark ettiler. Öte yandan, önceki çalışmalarda, bazı sosyolojik faktörlerin sosyal medya davranışlarını ve aynı zamanda bilgiyi paylaşma eğilimine etki ettiği tespit edilmiştir. Bu noktada ‘ulusal kültür’ elbette en önemli parametrelerden biri durumundadır. Bu nedenle, farklı milliyetlerdeki çalışanların kuruluşun bir parçası olduğu çok uluslu şirketler, kültürel farklılıklardan kaynaklanan sorunların üstesinden gelmek zorundadır.

Bu çalışma, çok uluslu bir şirketin, farklı ülkelerdeki Ar-Ge çalışanları arasında yapılmış olup; elde edilen verinin, Hofstede'nin kültürel boyutları temelinde karşılaştırılması sonucunda, kültürel farklılıkların, iş yerinde sosyal medya aracılığıyla bilgi paylaşma eğilimine etkisini ölçmeye yönelik olarak hazırlanmıştır. Bu hususta, bahsi geçen şirketin dünya üzerindeki dört farklı yerleşkedeki Ar & Ge çalışanlarından; Brezilyalı, Alman, Japon ve Türk çalışanlarından veri toplandı. Bu araştırma, otomotiv sektöründe faaliyet gösteren dünyaca ünlü bir üretici firmanın, sadece bir ürün ünitesi bünyesindeki Ar-Ge çalışanlarına uygulanmış olup; söz konusu organizasyon, ortak üst düzey yönetici tarafından yönetilmektedir.

Anahtar Kelimeler: Bilgi Paylaşımı, Sosyal Medya, Hofstede'nin Kültürel Boyutları

ABSTRACT

EVALUATION of TENDENCY to SHARE KNOWLEDGE via SOCIAL MEDIA, on the BASIS of HOFSTEDE's CULTURAL DIMENSIONS: A COMPARATIVE STUDY within A MULTINATIONAL CORPORATION

Özgür Barış Özer

Master of Business Administration Program

Thesis Supervisor: Assoc. Prof. Dr. Muhterem Şebnem Ensari

May 2019, 100 pages

As a result of rapidly developing internet technology, social media has turned into one of the easiest and fastest tool to share the knowledge. Organizations noticed that, this provides lots of chance in order to transfer knowledge within employees, but also it poses some risks, for instance for the knowledge security. On the other hand, as is found in former studies, several sociological factors have influences on social media behaviors as well as on tendency to share knowledge. 'National Culture' is obviously one of the most important parameters. At that point, multinational corporations have to overcome some issues due to cultural differences, where employees from different nations are parts of the organization.

This study deals with a research on evaluating the tendency to share knowledge via social media, by comparing the responses of R&D employees from different nations of a multinational corporation, on the Basis of Hofstede's cultural dimensions. In this respect, I focused on four locations within the content of my study and collected data from Brazilian, German, Japanese and Turkish R&D employees. This study has been implemented within a worldwide well-known automotive brand, where the entire R&D organization of same business unit is managed by the common executive at the top management level.

By applying a quantitative method approach, an online survey was conducted. In these terms, participants from these four locations were asked about demographic indicatives, attitudes towards social media, importance of social media, Trust in social media, knowledge sharing tendency, activities and type of shared content on social media and background of information safety. For this purpose, collected Data was analyzed by using the correlation and regression analysis. Results were interpreted from a cross-cultural comparative point of view, in order to uncover the factors, which is affected by cultural differences and social media behaviors and has influences on tendency of knowledge sharing.

Keywords: Knowledge Sharing, Social Media, Hofstede's Cultural Dimensions.

CONTENTS

TABLES	ix
FIGURES	x
ABBREVIATIONS	xi
1. INTRODUCTION	1
2. LITERATURE REVIEW	5
2.1 INTRODUCTION TO KNOWLEDGE MANAGEMENT	5
2.1.1 Etymology of the word ‘knowledge’	5
2.1.2 Definitions of the knowledge from past to present	5
2.1.3 Differences between information and knowledge	7
2.2 TYPES OF KNOWLEDGE	9
2.2.1 Classifications in early years	9
2.2.2 Other approaches to types of knowledge	11
2.2.2.1 A priori	12
2.2.2.2 A posteriori	12
2.2.2.3 Explicit knowledge	13
2.2.2.4 Tacit (implicit) knowledge	14
2.2.2.5 Propositional knowledge	15
2.2.2.6 Non-Propositional knowledge	16
2.3 KNOWLEDGE MANAGEMENT (KM)	18
2.3.1 What is knowledge management?	18
2.3.2 Importance of knowledge management	19
2.3.3 Components of knowledge management	20
2.3.4 Knowledge management processes, tools and techniques	21
2.4 KNOWLEDGE SHARING (KS)	25
2.4.1 Theories of knowledge sharing	26
2.4.1.1 Theory of reasoned action (TRA)	26
2.4.1.2 Theory of planned behavior (TPB)	27
2.4.1.3 Social exchange theory (SET)	28
2.4.2 Factors influencing knowledge sharing	28

2.4.2.1 Individual factors	30
2.4.2.2 Organizational factors	31
2.4.2.3 Technological factors	33
2.4.3 Knowledge sharing strategies in organizations.....	34
2.4.4 Knowledge sharing after ‘ <i>Internet of Things</i> ’	37
2.5 SOCIAL MEDIA	39
2.5.1 Meaning of ‘Web 2.0’ and introduction to social media	39
2.5.2 Types of social media by purpose of use.....	42
2.5.3 Advantages of social media use in organizations.....	43
2.5.4 Role of social media in knowledge sharing within organizations.....	46
2.5.5 Enterprise social networking (ESN).....	47
2.5.6 Risks of social media use in organizations.....	49
2.6 HOFSTEDE’S CULTURAL DIMENSIONS	51
2.6.1 National culture	51
2.6.2 Dimensions of national culture	52
2.6.2.1 Power distance index (PDI).....	52
2.6.2.2 Individualism (IDV).....	53
2.6.2.3 Masculinity (MAS).....	53
2.6.2.4 Uncertainty avoidance (UAI)	53
2.6.2.5 Long term orientation (LTO)	54
2.6.2.6 Indulgence versus restraint (IND).....	54
3. METHODOLOGY	55
3.1 PURPOSE OF THIS STUDY.....	55
3.2 RESEARCH DESIGN	56
3.2.1 Data Collection.....	57
3.2.2 Research Method	57
3.2.3 Research Questions.....	58
3.2.4 Hypothesis	58
4. ANALYSIS & FINDINGS	59
4.1 COMPARISON OF FOUR NATIONS BY HOFSTEDE’S 6D MODEL	59
4.1.1 Comparison of four nations by <i>Power Distance Index (PDI)</i>	59
4.1.2 Comparison of four nations by <i>Individualism (IND)</i>	60
4.1.3 Comparison of four nations by <i>Masculinity (MAS)</i>	62
4.1.4 Comparison of four nations by <i>Uncertainty Avoidance (UAI)</i>	63
4.1.5 Comparison of four nations by <i>Long Term Orientation (LTO)</i>	64

4.2 DEMOGRAPHIC INDICATIVES	65
4.3 FINDINGS OUT OF MULTIPLE ANSWER QUESTIONS	70
4.4 SCALE RELIABILITY & FACTOR ANALYSIS.....	74
4.5 FINDINGS OUT OF CORRELATION ANALYSIS.....	76
4.6 FINDINGS OUT OF REGRESSION ANALYSIS.....	82
5. RESULTS & DISCUSSIONS.....	83
5.1 RESULTS OF ANALYSIS WITH DEMOGRAPHICS	83
5.1.1 Results of analysis with ' <i>Nationality</i> ' variable	83
5.1.2 Results of analysis with ' <i>Gender</i> ' variable	83
5.1.3 Results of analysis with ' <i>Title</i> ' variable	83
5.1.4 Results of analysis with ' <i>Experience at the Corporation</i> ' variable.....	84
5.1.5 Results of Analysis with ' <i>Total Work Experience</i> ' Variable	87
5.2 RESULTS OF ANALYSIS WITH CULTURAL DIMENSIONS	89
5.2.1 Results of Analysis with ' <i>Individualism</i> ' Variable	89
5.2.2 Results of Analysis with ' <i>Power Distance Index</i> ' Variable	90
5.2.3. Results of Analysis with ' <i>Masculinity</i> ' Variable	92
5.2.4 Results of Analysis with ' <i>Uncertainty Avoidance</i> ' Variable	94
5.2.5 Results of Analysis with ' <i>Long Term Orientation</i> ' Variable	96
5.3 RESULTS OF REGRESSION ANALYSIS.....	97
6. CONCLUSION & RECOMMENDATIONS FOR RESEARCH.....	98
REFERENCES.....	101
Books.....	101
Periodicals	102
Others	107
APPENDICIES.....	109
APPENDIX A: Survey Questions	110
APPENDIX B: Curriculum Vitae.....	119

TABLES

Table 2. 1: Differences between Information and Knowledge	9
Table 2. 2: Examples for Tools of Different Types of Knowledge	22
Table 2. 3: Influences of National Culture on Knowledge Sharing.....	32
Table 2. 4: The Most Popular Social Networks Worldwide as of July 2018.....	42
Table 2. 5: Top Five Social Media Risks for Business	50
Table 4. 1: Descriptive Mean Statistics.....	69
Table 4. 2: KMO of Sampling Adequacy of Factor 1.....	75
Table 4. 3: KMO of Sampling Adequacy of Factor 2 and 3.....	75
Table 4. 4: KMO of Sampling Adequacy of Factor 4, 5, 6 and 7	76
Table 4. 5: Relationship between Gender and Factors.....	76
Table 4. 6: Results of ANOVA regarding Total Work Experience by Factors	77
Table 4. 7: Results of ANOVA regarding Nationality by Factors	78
Table 4. 8: Correlation Analysis between PDI and Factors	79
Table 4. 9: Correlation Analysis between IDV with factors.....	80
Table 4. 10: Correlation Analysis between MAS with Factors	80
Table 4. 11: Correlation Analysis between UAI with Factors	81
Table 4. 12: Correlation Analysis between LTO and Factors.....	81
Table 4. 13: Regression Analysis between Factor 1 and Cultural Dimensions	82

FIGURES

Figure 2. 1: What is Knowledge?.....	7
Figure 2. 2: The DIKW Pyramid.....	8
Figure 2. 3: Tacit & Explicit Knowledge.....	15
Figure 2. 4: Components of Knowledge Management	20
Figure 2. 5: Organizational Knowledge Infrastructure	21
Figure 2. 6: An Example of Modern KM Practice.....	24
Figure 2. 7: Theory of Reasoned Action.....	27
Figure 2. 8: Theory of Planned Behavior.....	27
Figure 2. 9: Factors Affecting Knowledge Sharing	29
Figure 2. 10: Social Media Elements	41
Figure 2. 11: Social Media Use of Inc. 500 Companies	44
Figure 2. 12: Enterprises Using Social Media, by Intended Use and Size, EU-28, 2013	45
Figure 2. 13: Intended Use of ESN	48
Figure 2. 14: Enterprise Social Networking.....	49
Figure 4. 1: Comparison of Four Countries by Hofstede's Dimensions.....	59
Figure 4. 2: Map Overview of the Study Group	65
Figure 4. 3: Distribution of Participants by Nationality.....	65
Figure 4. 4: Distribution of Participants by Gender	66
Figure 4. 5: Distribution of Participants by Highest Level of Education Completed	67
Figure 4. 6: Distribution of Participants by Title	67
Figure 4. 7: Distribution of Participants by Experience at the Corporation.....	68
Figure 4. 8: Distribution of Participants by Total Work Experience	69
Figure 4. 9: Social Media Preferences in the Workplace.....	71
Figure 4. 10: Intended Use of Social Media in the Workplace for Business Purposes	72
Figure 4. 11: Intended Use of Social Media in the Workplace for Personal Purposes	73
Figure 4. 12: Mostly Shared Content on Social Media.....	74

ABBREVIATIONS

3D	:	Three Dimensional
4IR	:	4th Industrial Revolution
6D	:	Six Dimensional
AC	:	Air Conditioning
ANOVA	:	Analysis of Variance
CMC	:	Computer-Mediated Communication
e.g.	:	For example
ESN	:	Enterprise Social Networking
et al.	:	and others
etc.	:	et cetera
HMI	:	Human-Machine Interface
IBM	:	International Business Machines
IDV	:	Individualism
IND	:	Indulgence
IOT	:	Internet of Things
ISACA	:	Information Systems Audit and Control Association
IT	:	Information Technologies
KM	:	Knowledge Management
KMO	:	Kaiser-Meyer Olkin
LTO	:	Long Term Orientation
MNC	:	Multinational Corporate
p.	:	Page number
PDI	:	Power Distance Index
pgs.	:	Pages
SET	:	Social Exchange Theory
SNS	:	Social Networking Sites
TPB	:	Theory of Planned Behavior
TRA	:	Theory of Reasoned Action.
UAI	:	Uncertainty Avoidance
USD	:	United States Dollar

1. INTRODUCTION

In today's world, digitalization is changing people's habits rapidly and bringing new values into their lives. Nowadays, a large number of people would rather online shopping instead of spending time in malls, using bank applications for money transfers or credit card payments instead of going to bank or even for activating the air-conditioner while driving home. These kind of things make everybody's life easier and allow them to save time and money for sure. One of the biggest steps of this digitalization wave was Web 2.0 for sure, or as it is commonly called: 'Social Media'.

According to "The new 2018 Global Digital suite of reports from "We Are Social" and "Hootsuite" reveals, there are more than 4 billion people around the world using the internet. It is incredible that, in a short period like only thirty years, it has settled into the midpoints of our lives. Social media use is growing rapidly too. Number of people using the top platform in each country has increased by almost one million new users every day in 2018. More than three billion people around the world is using social media each month, with nine in ten of those users accessing their chosen platforms via mobile devices. On the other hand, according to the list by Statistics Portal "Statista" about the hundred largest companies in the world by market value in 2018 (in billion USD), the first six places on top have been shared by companies which are related with digital elements, such as well-known computer and smart phone manufacturers, online shopping portals and social media providers.

Social media is making our daily lives definitely easier and more enjoyable. It enables sharing every moment instantly with third parties. On the other hand, it is also not very different in the business life, departments such as, Advertising, Marketing & Sales have been using social media very active for a long time. Social media brings also some risks both into personal and to the business life. Under favor of social media, each person can suddenly turn into a reporter, a live broadcast presenter, or a paparazzi, which might be annoying sometimes for the other individuals. If we think that, everybody is carrying a digital camera in his pocket constantly, which is connected to

internet all the time. From the point of organizations, there are obviously some risks to, in terms of information security, financials, accounting, productivity etc. For example, confidential documents, e.g. strategic mails from the top management, information about financial status, marketing strategy, short/long term plans, 3D-Models of a prototype, or maybe detailed product strategy for the next twenty years, can get easily leaked, transferred or shared with third parties. Therefore, companies spend millions of dollars on knowledge protection every year, land heavy contracts with their employees and train them against the risks such as knowledge/information leakage, however, it is almost impossible to obstruct it entirely. Some organizations even introduce a ban to use social media. But not the smart ones. Most of the companies are aware of the potentials of social media as well as its risks, such as establishing a knowledge sharing atmosphere and strongly connected network among the employees. At that point, individuals are expecting to use social media in all branches of life in order to manage daily things simply and fast, while the organizations are trying both, profiting from opportunities of social media as much as possible and, minimizing all the risks.

On the other hand, organizations have been handling one more challenge for a long time, which is called 'Globalization.' In reaction to rapidly changing requirements of the business world, and through the occasions of developing technology, the way of daily business is changing from day to day too. Multinational organizations are trying adapt their employees to this changing world, where employees can be a part of the same team or organization despite the thousands of kilometers distance. It is not easy for sure to manage this process smoothly and to ensure that, people from different cultures work together in step with each other. They know that very well, it is possible only by recognizing cultural differences and accepting as a part of business. However, a company culture is definitely needed to turn the challenges consisted of cultural differences into the chances.

A wide range of studies have been conducted so far, either on relationship between social media behaviors and knowledge sharing, or about the correlation between

cultural differences and social media behaviors. For instance, Judith Hofmann (2018), investigated “Impacts of Cultural Dimensions on Social Media Behavior.” In another example, Anell and Wu (2013), conducted also a comparative study and investigated “Knowledge management in Global Teams”, by comparing cultural differences between Swedish and Chinese IT employees of Volvo Group.

With the help of previous studies, the relationship between social media behaviors and intention of knowledge sharing was several times reviewed. In the same way, impact of cultural differences both on knowledge sharing and social media behaviors were also often discussed. Similar to these prior studies, my main aim of curiosity based also on, investigating the impacts of cultural differences on tendency to share the knowledge in the workplace. In addition to this, I would like to do a research about the role of cultural differences on tendency of knowledge sharing via social media, by compounding this two topics by a third dimension. From this point of view, this study deals with uncovering the factors, which are consisted of cultural differences and social media habits of nations, and that have influences on tendency to share the knowledge in the workplace.

From this point of view, a comparative study was conducted among the R&D employees from Brazil, Germany, Japan and Turkey, who are part of the same organization and working for a worldwide well-known brand, which is operating in the automotive industry.

An online survey conducted with a quantitative method approach. Questionnaires from prior studies were adopted, mixed and extended with a couple of additional questions. Survey questions were classified into groups in order to uncover the demographic indicatives, attitudes towards social media, importance of social media, trust in social media, knowledge sharing tendency, activities and type of shared content on social media, and background knowledge about information safety. Demographic Indicatives were analyzed by the ANOVA-Method (Analysis of Variance) except for ‘Gender’,

which was analyzed by the Independent Samples T-Test Method. Rest of the Data was analyzed by using Correlation Analysis. On the other hand the relationship between the factors and cultural dimensions were reviewed also by the Regression-Analysis.

This study is designed in six chapters. Next chapter established in order to review the literature in previous studies about the subjects; Knowledge, Types of Knowledge, Knowledge Management, Knowledge Sharing, Social Media and, Hofstede's Cultural Dimensions. It will be followed respectively by the chapters Methodology, Analysis & Findings, Results & Discussions, Conclusion and Recommendations for Research.



2. LITERATURE REVIEW

2.1 INTRODUCTION TO KNOWLEDGE MANAGEMENT

2.1.1 Etymology of the word 'knowledge'

The root of the word science originates from the Latin, “*Scientia*”, which means knowledge. Knowledge comes from the Greek word, “*Gnosis*”, signifying knowing through observation or experience. The scientific method is a way of acquiring knowledge through collection of data, observations, experimentation and formulating testable hypotheses. (Spaced-out Magazine, 2015).

“*Gnosis is the common Greek noun for knowledge (γνῶσις, gnōsis, f.)*” (E. Porter, 2016, p. 9). “Gnosis means any of various related philosophical and religious movements prominent in the Greco-Roman world in the early Christian era, particularly the 2nd century. It is best known from Gnosticism, where it signifies a knowledge or insight into humanity’s real nature as divine, leading to the deliverance of the divine spark within humanity from the constraints of earthly existence” (Encyclopedia Britannica).

“It is often used for personal knowledge compared with intellectual knowledge (εἶδεν εἶδειν), as with the French connaître compared with ‘savoir’, the Spanish conoce compared with saber, or the German kennen rather than wissen” (E. Pagels, 1995, p. 167).

2.1.2 Definitions of the knowledge from past to present

Defining the knowledge has always been a contradictive issue. Davenport & Prusak (1998) put a definition for knowledge as a mix of fluid experiences, values, contextual information and intuition that provides a structure to evaluate and incorporate new experiences and information. It originates and is applied in the minds of individuals. Nonaka & Takeuchi (1995) described it as true and justified belief.

Here are some other descriptions of worldwide famous philosophers and authors;

“The existence of this latent knowledge is further proved by the interrogation of one of Meno’s slaves, who, in the skillful hands of Socrates, is made to acknowledge some elementary relations of geometrical figures” (Meno, Plato, p. vi, cited in Pagels, 1995, p. 167).

“However we may increase our knowledge of the conditions of space in which man is situated, that knowledge can never be complete, for the number of those conditions is as infinite as the infinity of space” (Tolstoy, War and Peace, p. 1303, cited in Pagels, 1995, p. 167).

“It has been asserted that a power of internal taxation in the national legislature could never be exercised with advantage, as well from the want of a sufficient knowledge of local circumstances, as from an interference between the revenue laws of the Union and of the particular States” (Hamilton, The Federalist, p. 160, cited in Pagels, 1995, p. 167).

In addition to that, Brachman and Levesque (2004), associated knowledge with the terms ‘intelligence’, ‘experience’ and ‘skills’. They indicated that, *“sensational in appearance of intelligent behavior is clearly considered as knowledge”* (Brachman and Levesque 2004, p.7).

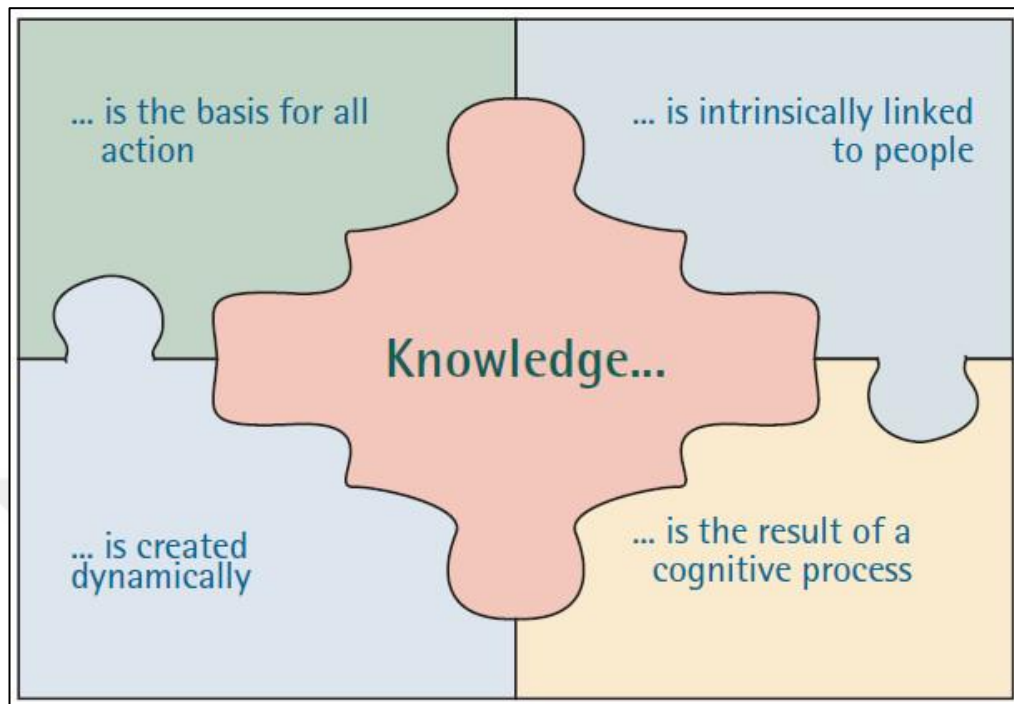
In consideration of different lexical meanings of this word in dictionaries;

It has been defined variously by the Oxford Dictionary as:

- i. *“Expertise and skills acquired by a person through experience or education in the theoretical or practical understanding of a subject;*
- ii. *“What is known in a particular field or in total; facts and information;*
- iii. *“Awareness or familiarity gained by experience of a fact or situation.”*

In Cambridge Dictionary it is figured as: *“information and understanding that you have in your mind”*.

Figure 2. 1: What is Knowledge?



Source: Magalhaes J., 2015

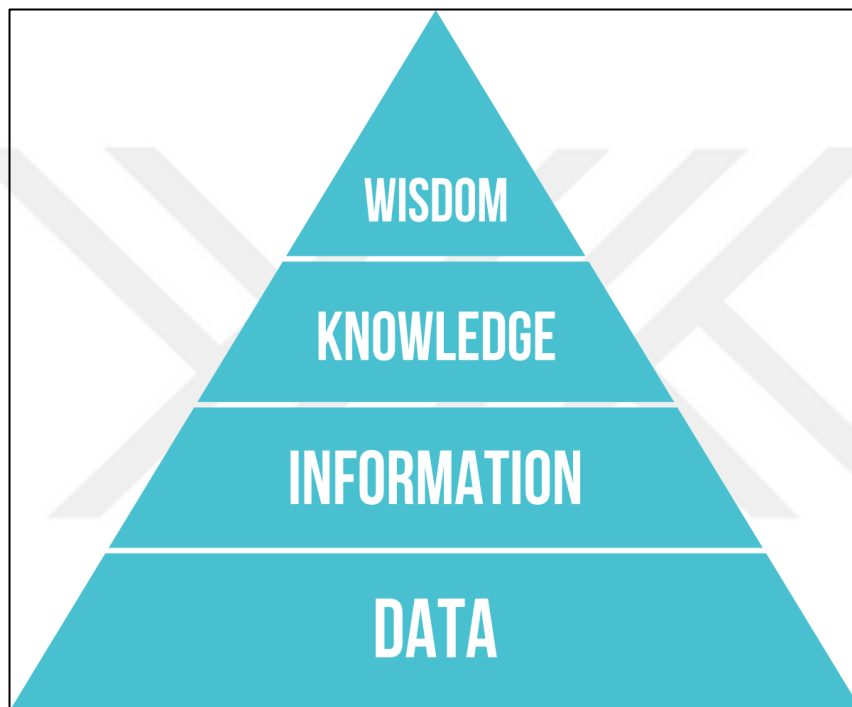
2.1.3 Differences between information and knowledge

Surbhi S. (2016), emphasized that, it is reasonably normal to get confused about information and knowledge. He told that, these two terms are mostly used interchangeably, because of not knowing that there is slight and subtle differences between them. Information is described as the Data, which was transformed into an understandable and useful form, and can be processed by the decision making. *“In other words, when data turn out to be meaningful after conversion, it is known as information”* (Surbhi S., 2016).

Although, both are important elements of KM, there is a differentiation between them just like a difference between raw material and end product. Because, knowledge is generally consisted of processed information. This means, information is involved in knowledge.

Goldschmidt argued that, problem can be solved by searching through one's 'problems space'. The problem space is used to achieve the goal state of the problem and consists of 'representations, the information processes and all knowledge available' (Goldschmidt, 1997; Ahmed et al., 1996, p. 2). Christiaans added that, "*problem space is thought to increase with expertise*" (Christiaans, 1992, Ahmed et al., 1996, p. 2).

Figure 2. 2: The DIKW Pyramid



Source: The wisdom hierarchy: DIWK hierarchy, Rowley J., 2007

Surbhi S. (2016), discussed that further, that knowledge has two meanings; first is "having the information", and second is understanding "how items of information hang together". He gave an example and argued that, 'Paris is the capital of France' is a only an information, which does not need to be understood after being processed. However, we understand it only after collecting enough samples and matching them to prior accumulation of knowledge, e.g. what generally happens in capital cities, after that we can construct internally an understanding about a capital city. He indicated that,

“Information comes from outside; understanding we manufacture internally” (Surbhi S., 2016).

Lurie (2012) separated these two terms as following:

- i. *Information: “Facts provided or learned about something or someone.”*
- ii. *Knowledge: “Information and skills acquired through experience or education; the theoretical or practical understanding of a subject.”*

On the other hand, he compared them with each other also in terms of maturity levels, by describing the information as raw data or a list of facts, while knowledge was described as a combination of information with analysis and experience.

Table 2. 1: Differences between Information and Knowledge

Basis for comparison	Information	Knowledge
Explanation	When the facts obtained are systematically presented in a given context it is known as information.	Knowledge refers to the relevant and objective information gained through experience.
Maturity Level	Refined data	Useful information
Content	Data and context	Information, experience and intuition
Processing	Improves representation	Increases consciousness
Outcome	Comprehension	Understanding
Transferability	Easily transferable	Requires learning
Reproducibility	Reproducible	Non-reproducible
Prediction	Information alone is not sufficient to make predictions	Prediction is possible if one possess required knowledge.
One in other	All information need not be knowledge.	All knowledge is information.

Source: Surbhi S., 2016

2.2 TYPES OF KNOWLEDGE

2.2.1 Classifications in early years

de Jong & F. Hassler, (1996) argued that, scholars have made various approaches in order to give a systematic description to the knowledge in the past, wherewith the term

‘knowledge’ was divided into two sections on the basis of cognitive and instructional design theories. On the other hand, they underlined that, the epistemological point of view should be taken into account as well, while introducing distinctions between types of knowledge.

Gott (1989), specified epistemology approaches as task dependent and indicated that, same elements of the subject may be characterized by different ontological types depending on task in which they function (de Jong, de Hoog & Schreiber, 1988; Messick, 1984).

As an example for perspective of cognitive theories, Alexander and Judy (1988), mentioned interaction of domain specific and strategic knowledge in their article and distinguished three types of domain specific knowledge. They described declarative knowledge as “*factual information*”; procedural knowledge as “*compilation of declarative knowledge into functional units that incorporate domain specific strategies*” and the conditional knowledge as “*understanding when and where to access certain facts or employ particular procedures*” (Alexander & Judy, 1988).

These scholars have explicitly focused on problem solving and on the basis of a detailed task analysis. In further studies, knowledge were summarized to four types as following:

- a. *Situational knowledge: “Knowledge about situations as they typically appear in a domain. Knowledge of problem situations enables the solver to sift relevant features out of the problem statement (selective perception), and if necessary, to supplement information in the statement”* (Braune & Foshay, 1983, cited in de Jong, F. Hassler, 1996, p.106).
- b. *Conceptual knowledge: “Static knowledge about facts, concepts, and principals that apply within a certain domain. Conceptual knowledge functions as additional*

information that problem solvers add to the problem and that they use perform the solution” (de Jong, F. Hassler, 1996, p. 107).

c. *Procedural knowledge*: “Contains actions or manipulations that are valid within a domain. Procedural knowledge helps the problem solver to make transitions from one problem state to another. It can have a specific domain-bound (strong) character, or it can be more general (weak)” (de Jong, F. Hassler, 1996, p.107).

d. *Strategical knowledge*: “Helps students to organize their problem-solving process by directing which stages they should go through to reach a solution. A strategy can be seen as a general plan of action in which the sequence of solution activities is laid down” (Posner & McLeod, 1982, cited in de Jong, F. Hassler, 1996).

2.2.2 Other approaches to types of knowledge

As is seen, from past to present, there has always been discussions over the types of knowledge. Even the amount of types are still being discussed. In some sources it has been collected under two main titles as Explicit and Tacit Knowledge, whereas in some others are standing already three, six or thirteen types of knowledge.

One of the contemporary approaches to types of knowledge has been applied by researcher Gemma (2014), who collected types of knowledge, under six main title, as following:

- i. *“Priori*
- ii. *Posteriori*
- iii. *Explicit knowledge*
- iv. *Tacit/Implicit knowledge*
- v. *Propositional knowledge*
- vi. *Non-Propositional knowledge”* (Gemma, 2014).

2.2.2.1 A priori

According to first recorded sources, Albert of Saxony defined a priori and a posteriori terms for the first time in the 14th century. A priori was figured as “from causes to the effect” and a posteriori as “from effects to causes.” Later on similar definitions have been applied also by many other philosophers including. G.W. Leibniz. (The Editors of Encyclopedia Britannica, 2019)

If we need to have a look at a contemporary point of view, we see that Gemma (2014), characterized, a priori and a posteriori as two original terms of the epistemology (the study of knowledge), and reveals the literal description for a priori as “from before” or “from earlier”, since a priori knowledge depends upon the person and his background knowledge (Gemma, 2014).

Another researcher Spacey (2015), considered a priori, as one of the thirteen types of the knowledge, which is the knowledge that inferred from first principles (Spacey, 2015).

Mathematical equations are given commonly as an example for priori in most of the sources. For instance, an equation ($2 + 2 = x$) can be easily answered without physically finding four objects to count them. It would be known that the answer is 4 without doing an experiment to understand it. In many areas, such as physics, a priori proofs are important due to the difficulties and expenses of obtaining empirical evidence. It is common for a well-accepted theory to be confirmed with empirical evidence decades or even centuries after being proven with mathematics or logic.

2.2.2.2 A posteriori

A posteriori knowledge is defined in the Encyclopedia of Britannica, as the knowledge that derived from experience, as opposition to a priori knowledge (The Editors of Encyclopedia Britannica, 2019). Gemma indicated that, a posteriori literally has a meaning “from what comes later” or “from what comes after.” This is a reference to

experience and using a different kind of reasoning (inductive) to gain knowledge. A posteriori is knowledge that results from experience or empirical evidence (Gemma, 2014). He argued that, this kind of knowledge is gained by first having an experience for instance through the five senses, and then using logic and reflection to derive understanding from it. He told that, this term is sometimes used interchangeably with empirical knowledge in philosophy, which stands for the knowledge, based on observations.

2.2.2.3 Explicit knowledge

Explicit knowledge defined in the Online Business Dictionary (Web Finance Inc., 2019) as following: “*Articulated knowledge, expressed and recorded as words, numbers, codes, mathematical and scientific formulas, and musical notations.*”

Lam (2000), separated explicit and tacit knowledge by the codifiability. Explicit knowledge is assessed as easily transferable because it is possible to codify it. If explicit knowledge once codified, it can be used many times in order to solve similar issues and also for communicating with the people wisely, with regard to this knowledge. She added that, explicit knowledge can be easily expressed, codified, distributed and stored. (Lam, 2000, p. 490).

“Explicit knowledge is similar to a priori knowledge which utilized as more formal or more reliable. It is our libraries and databases. The specifics of what is contained is less important than how it is contained. Anything from the sciences to the arts can have elements that can be expressed in explicit knowledge. Get a taste of explicit knowledge for yourself with this top-rated course on learning how to learn and knowing how to tap into your inner genius” (Gemma, 2014).

Most explicit knowledge is technical or academic data or information that is described in formal language, like manuals, mathematical expressions, copyright and patents. (Elizabeth A. Smith, 2001).

2.2.2.4 Tacit (implicit) knowledge

The philosopher Michael Polanyi argued that, only a small part of tacit knowledge can be transferred, however, it is known much more. With other words, it is the knowledge, which is used while doing something without thinking about it, like riding a bicycle (Polanyi, 1967, cited in Smith, 2001, p. 311). Nonaka specified tacit knowledge as highly personal. Since it is hard to formalize, it is difficult to exchange it with others (Nonaka, 1991, p. 98). Similar to Nonaka, Sternberg also classified it as highly personal, subjective and mostly informal, which can be inferred from the statements of others (Sternberg, 1997, 2005, p. 193).

Libeowitz and Beckmann (1998) argued that, cognitive models have influences on how people give the meaning to the incidents, which are happening around them. Tacit knowledge is automatic, requires little or no time or thought and helps determine how organizations make decisions and influence the collective behavior of their members (Liebowitz and Beckman, 1998).

Tacit knowledge is defined in Random House Dictionary as the knowledge that is “being understood without being openly expressed” (Random House Dictionary of the English Language, 1971).

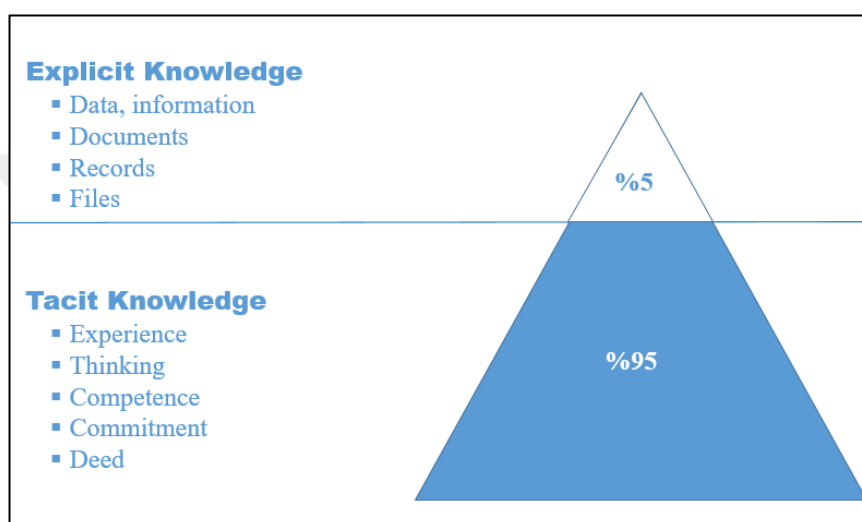
Nonaka put forth another description through the studies with Takeuchi (Nonaka, Takeuchi, 1995, cited in Jamil, Leal, 2018, p. 386), which was also supported by Tayomo and Konno (2000), where they argued that;

“A knowledge will only be created in an organization by establishing a robust relationship network set up between the knowledge in its two main dimensions. Tacit Knowledge, generated in the human brain, consequence of experiences, inflections, reasoning, thoughts, highly personal, hard to formalize and communicate, subjective, deeply connected to emotions and personal values.”

Wijetunge (2002) divided the tacit knowledge of a university into two categories: internal tacit knowledge and external tacit knowledge.

Bedford et al., (2015) discussed a library's tacit knowledge that takes the form of intellectual assets, which they define as "an aggregation of the intellectual capital of all of its employees." It consists of answers to questions, knowledge of sources, knowledge of subject domains, knowledge of information behaviors, knowledge of the publishing industry, foresight, etc.

Figure 2. 3: Tacit & Explicit Knowledge



Source: Magalhães L., 2015

Gemma (2014), indicated that the biggest difficulty of tacit knowledge is knowing when it is useful and understanding how to make it useful. He explained it with an example, that tacit knowledge can only be exchanged through consistent and extensive relationships or contacts e.g. taking lessons from a professional musician. But he underlined that, even in this case, knowledge transfer wouldn't occur itself. He emphasized that, each person must find, which forms of knowledge suit the best (for instance skills, short-cuts, rhythms, etc.).

2.2.2.5 Propositional knowledge

Corcoran (2006), defined propositional knowledge, also known for Descriptive or Declarative; as the expertise, skills, or abilities that a person has, and he specified it as personal, which is means, it is subjective in the sense of being achieved by a knowing

subject. Knowing requires that the knower accurately judge based on conclusive evidence. (Corcoran, 2006, p. 2). However, (Williams, 2007, p. 1-2) looked for an answer in his study, whether know-how is always constituted by propositional knowledge and after the examination of two of philosopher Gilbert Ryle's arguments, he reached following conclusion, that know-how does not always consists of propositional knowledge, which separates propositional knowledge from know-how, or in other words, it makes that hard to use these two words interchangeably.

“Propositional knowledge is information or understanding that can be represented in natural language or a more formal language such as mathematics and propositional logic; e.g. ‘France is a country.’; ‘ $x + y > 20$ ’; ‘The sun is larger than the earth.’ It is often contrasted with knowledge that is difficult to encode in a language such as how to ride a bike” (Spacey, 2016).

Propositional knowledge is commonly specified as a type of knowledge that can literally be expressed in propositions; as declarative sentences or indicative propositions. Propositional knowledge is not so different from a priori and explicit knowledge. The key attribute is knowing that something is true. He argued that, the given example of a priori, mathematical equations, can be considered also an example of propositional knowledge, because it is knowledge of something, as opposed to knowledge of how to do something. The best example is one that contrasts propositional knowledge with the other form of knowledge, non-propositional (or procedural) (Gemma, 2014).

Propositional knowledge is an internal state of someone. If we refer to a “known” truth, the subject in the definition of truth, the subject ought to appear in both terms of the truth relation (Villoro, 1992-1996).

2.2.2.6 Non-Propositional knowledge

Non-Propositional Knowledge is also known for Procedural or Operational.

“In cognitive psychology, procedural knowledge is the knowledge exercised in the accomplishment of a task, and thus includes knowledge which, unlike declarative knowledge, cannot be easily articulated by the individual, since it is typically non-conscious (or tacit). Many times, the individual learns procedural knowledge without even being aware that they are learning” (Stadler, 1989, p. 1061).

Mark Burgin (2016) compiled former discussions about the definition of non-propositional knowledge. He quoted, for instance, definition of Kogut and Zander: *“Procedural knowledge consists of statements that describe a process, such as method by which inventory is minimized”* (Kogut and Zander, 1992, cited in Burgin, 2016, p. 48). Burgin stated that, there was no clear agreement on the definition of operational (procedural) knowledge. For instance, Lewicki et.al. (1987, p.523) associated procedural knowledge either with cognitive skills or with processing rules. At the same time, Kogut and Zander claim that operational (procedural) knowledge consist of statements (Kogut and Zander, 1992, cited in Burgin, 2016, p. 49).

In an article, published by Sophia Antipolis University of Nice in 1985, procedural knowledge specified by involving also the information how to do something with other words having the know-how. It was explained with an example like riding a bike. People may not be capable of explaining how they do it. Once this ability gained, person will be automatically capable of doing this again afterwards (Sophia Antipolis University of Nice, 1985).

In brief, as Gemma (2014) argued that, procedural knowledge can be applied for solving a problem. As different from propositional knowledge, procedural knowledge is gained ‘by doing’, with other word, by trial-and-error, while propositional knowledge is gained by more traditional ways of learning. *“One of the defining characteristics of procedural knowledge is that it can be claimed in a court of law.”*

He indicated that, companies, who develop their own procedures or methods, has an advantage in terms of keeping them as intellectual property. In addition to that, Gemma compared experience (procedural) to eclipsing education (propositional) and,

indicated that although education is very important, without experience it is not easy to accomplish things (Gemma, 2014).

2.3 KNOWLEDGE MANAGEMENT (KM)

2.3.1 What is knowledge management?

Conventionally, management is defined as the process of planning, organizing, leading and controlling the use of resources to accomplish performance goals. (Schermerhorn, 2005, cited in Kandadi, 2006). Dr. Kandadi has arrayed the basics of management characteristics as planning, organizing and leading and on the other indicated that control of knowledge is also a complex issue. Knowledge management is the process of gathering raw, unprocessed data, sharing the processed information and using the information effectively. It is a mixture of people, technology and processes. Karl Sveiby defined KM as, “*the art of creating value from an organisations intangible assets.*” (Sveiby, 2003, cited in Ghani, 2009).

Oxford Dictionary described KM as handling of information and resources efficiently within an organization. However, Alan Frost (2010, 2012) explained that knowledge management is the systematic management of an organization’s knowledge assets for the purpose of creating value and meeting tactical and strategic requirements (Dahri, & Yunus, 2018). Allee (2003) detailed this argument by characterizing KM as the institution of coordinated processes that lead to creation, sharing, transfer and renewal of the organizational knowledge so as to improve performance, and create added value generated by their intellectual and knowledge centered assets (Alle, 2003, cited in Makore, 2016, p. 26).

Treser (2016) indicated in his article, that knowledge management involves discovering, retaining, and sharing expertise in order to improve the efficiency of an organization. Knowledge management is meant to facilitate the following:

- i. Creating the knowledge
- ii. Storing the knowledge
- iii. Sharing and transferring the knowledge

iv. Applying the knowledge (Treser, 2016).

2.3.2 Importance of knowledge management

Dingsory and Conradi (2002) argued in their study that KM is one of the most important assets of an organization. Organizations have realized its importance nowadays due to its impact on success factors like reuse of past knowledge, experiences and innovations. They defined KM as “process of sharing, distributing, organizing, creating, storing and understanding of knowledge about organization policies, processes and products” (Ahmed and Khan, 2008, p. 18). Ichigo and Kohlbacher (2007) evaluated the importance of creating and transferring knowledge in an international context within Japanese automotive giant ‘Toyota’, and they focused especially on marketing knowledge in terms of efficient knowledge transfer. “The capability of multinational corporations (MNCs) to create and efficiently transfer and combine knowledge from different locations around the world is becoming increasingly important as a determinant of competitive advantage” (Gupta & Govindarajan, 1991; Doz et al., 2001, Schulz & Jobe, 2001, Asakawa & Lehrer, 2003, Chini, 2004, cited in Ichigo and Kohlbacher, 2007).

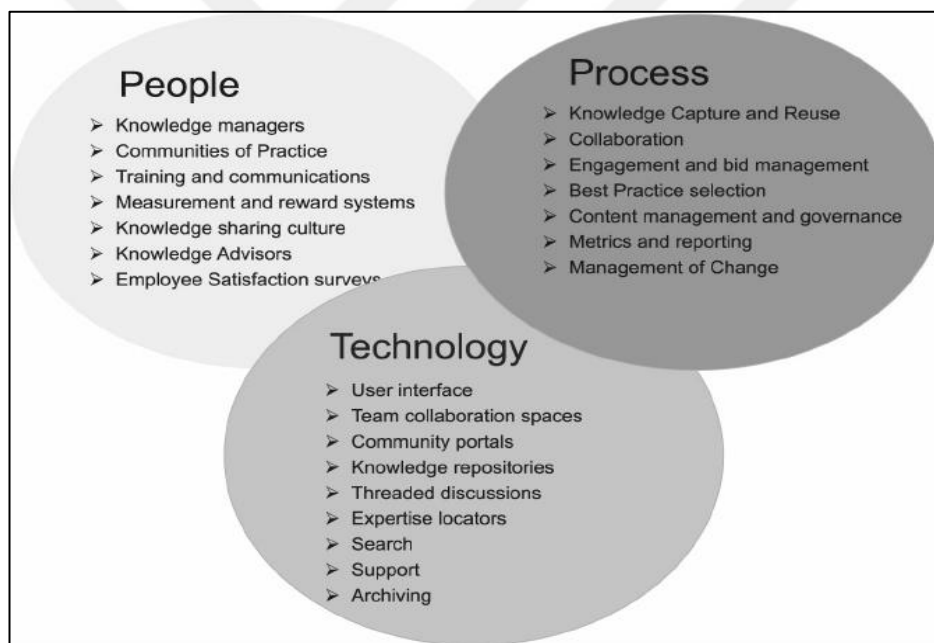
Cultural differences and the cross-cultural context seem to play an important role for and influence global knowledge creation and management (Holden, 2001, 2002; Glisby & Holden, 2003; Holden & Von Korfzfleisch, 2004; Zhu, 2004, cited in Ichigo and Kohlbacher, 2007). Therefore, cross-cultural knowledge management systems among global marketing organizations must take into account learning techniques in various cultures’ (Riesenberger, 1998, p. 99).

In that study, I will be mainly discussing the impacts of culture on knowledge sharing via social media by doing a cross-cultural research within another worldwide well-known automotive corporation and try to verify formerly defined hypothesis or correlations clear, by analyzing the responses of R&D employees of this corporation on the basis of Hofstede’s cultural dimensions.

2.3.3 Components of knowledge management

Liebowtz (2012) (cited in Annell, Wu, 2013, p.7), indicated that knowledge management is combined by three components: people, process and technology. Component of ‘people’ is associated to how to create and continue a knowledge sharing environment and culture in the corporation. Second component ‘process’ is associated to managing processes and aligning knowledge sharing with the daily work of the employees, whereas “Technology” is associated to providing a unified platform, in other words required opportunities and tools for the employees to communicate and share the knowledge. (Annell, Wu, 2013, p. 7)

Figure 2. 4: Components of Knowledge Management

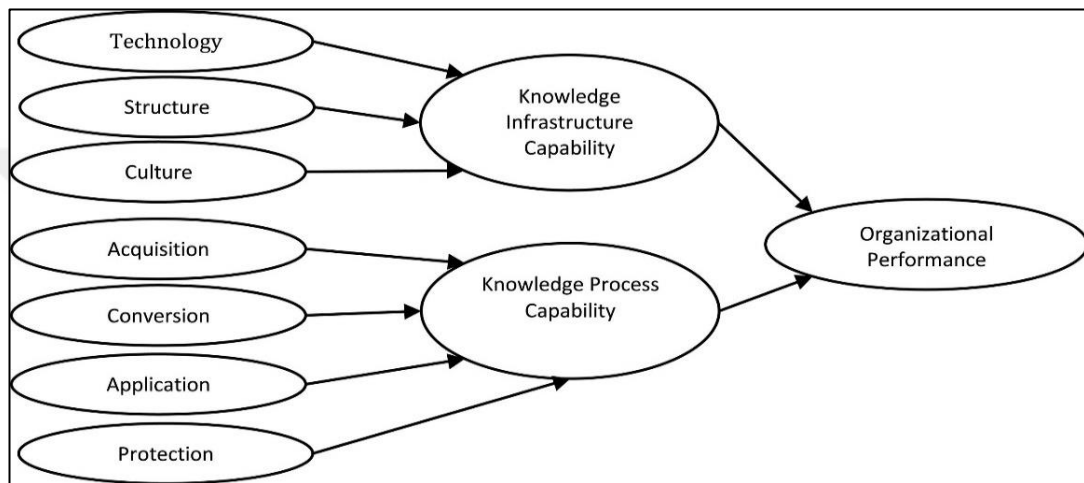


Source: Kohlbacher F., 2007

Makore (2016) collected several academic approaches about KM perspectives below three titles and categorized them along following perspectives as organizational perspectives, ecological perspectives and technological perspectives. Organizational perspective focuses on how an organization can be designed so as to facilitate knowledge processes best. (Rastogi, 2000, Spender & Scherer, 2007, Jasaphara, 2011; cited in Makore, 2016, p. 27).

Ecological perspective focuses on the interaction of people, knowledge, identity and environmental factors. (Rastogi, 2000, Spender & Scherer, 2007; cited in Makore, 2016, p. 27) and technological perspective focuses on specifically on technology, especially which enhances knowledge sharing and storage. (Spender & Scherer, 2007, Santosos, Surmacz, 2010; cited in Makore, 2016, p. 27).

Figure 2. 5: Organizational Knowledge Infrastructure



Source: Gold et al., 2001

2.3.4 Knowledge management processes, tools and techniques

In his article Treser (2016) arrayed KM tools and techniques starting from the ‘old reliable’ option.

- i. *Knowledge bases*: Treser tells that, knowledge bases usually take shape as an intranet portal or as a wiki-based mini site, where the employees can find answers to the most frequently asked questions in the organization, descriptions of technical procedures, detailed use cases and post-mortems of issues encountered in the past. He says that, a knowledge base can be in a form such as text, multimedia materials, video tutorials, links to relevant third party resources, and more.
- ii. *Communities of Practice*: Treser describes it as professional communities where members are united by a common sphere of activity, a shared project, or a common

goal. Key point is creating the right environment for the employees, so they can start talking shops with each other, sharing tips and experiences etc.

iii. *Knowledge Map*: It works principally by listing the experts within the organization, shows their respective areas of expertise, and provides the means of contacting them. It stands to reason that before you can ask for advice, you must first find someone who can give a competent answer, and this is where a knowledge map comes in handy.

iv. *Bank of Ideas*: Bank of ideas collects and stores the ideas and best practices generated in the organization.

Ghani (2009, p. 35) exemplified some KM tools and matched them with different types of knowledge from his point of view:

Table 2. 2: Examples for Tools of Different Types of Knowledge

Explicit knowledge	Know-how	Know-who	Implicit knowledge
System tools	Collaboration tools	CRM tools	Video conferencing
DBMS	E-mail	Social network analysis	Face-to-face facilitation
Data warehousing	Groupware	Knowledge portals	Other technologies

Source: Ghani, 2009

In addition to that, Ghani (2009, p.36) reviewed commonly used IT-Tools for KM and categorized them according to intended purpose into eight groups as following:

- a. Traditional Database Tools:
- b. Process Modelling and Management Tools
- c. Workflow Management Tools
- d. Enterprise Resource Management (ERP/ERM) Tools
- e. Agent Tools
- f. Search Engines, Navigation Tools and Portals

- g. Visualizing Tools
- h. Collaborative Tools

As is seen, amount of KM tools and techniques can be augmented, detailed and diversified according to usage area or intended purpose. Information Technologies (IT) enables organizations lots of different opportunities for creating, storing and sharing the knowledge. As a result of continuous technological developments, organizations are being forced to update firstly the mentality and corporate culture and then also the resources, systems in terms of an efficient collaboration working. They also have to adapt their employees to such changes as fast as possible and make them understand pros and cons of the idea behind it. At that point, all individuals have to gain some new business terms.

‘Agile’ is one of them. It is mostly used in a name of a process, e.g. Agile Project Management, to make it lean and to bring a new perspective as different from conventional understanding. It became nowadays already one of the most trending definitions of the business world, which literally means to be able to move quickly and easily. It is commonly used with other terms ‘Scrum’ or ‘Kanban’. None of these terms are actually brand new, for instance Kanban principle is being used at Toyota since from 1940’s.

Members are currently implementing:

- i. Better ways to create relevant connections between people
- ii. People profiles to indicate who knows what
- iii. New measures for contribution in a collaborative environment (talent management) (Consortium for Service Innovation, 2019)

These could be given as examples of communities of practice that Treser talked about. On the other hand, a project lessons-learned database or rules of procedures can be given as an example of a knowledge base, while an internal personal information portal can be associated with knowledge map.

Figure 2. 6: An Example of Modern KM Practice



Source: Daimler Annual Report, 2016, Leadership 2020

Scrum is also an agile methodology which is being used in software development for a long time. Only ‘Swarming’ methodology is called as a new way to align resources to work, which started being used instead of escalation based old streaming model. “It involves removing the tiers of support and, when appropriate, calling on the collective expertise of a “swarm” of analysts.

Scrum’s idea originally comes from a Japanese development process, where Scrum term refers to rugby star formation’s idea to progress as a unit over the whole field. Scrum process and rugby strategy are both self-organizing and adaptive (Schwaber and Beedle, 2002, cited in Seppänen, 2016, p. 3). “Agile” is an umbrella term for set of different practices that specify an iterative approach to software development.

Scrum is one type of an agile method, though often it is used as synonym for agile (Highsmith, 2011, cited in Seppänen, 2016, p. 2).

“Among many lean techniques, KANBAN is one of the major ones developed for pull system, where products/ services are pulled into the production system by responding to customer’s demand. Various practitioners confirm that KANBAN is a useful system in the way it addresses obstacles and wastes by detecting bottlenecks in organizations. Additionally, KANBAN allows users modify the system depending on their needs and situations, thus serves well by offering solutions to each unique problem existing in organizations” (Anderson, 2010, cited in Amin and Kubo, 2014, p. 11-12).

2.4 KNOWLEDGE SHARING (KS)

In business world, knowledge sharing has always been a critical issue. Companies are investing many resources to support and encourage their employees, for generating new ideas, to turn this raw ideas into the knowledge, shaping the future through these ideas, and while doing that keeping the knowledge as confidential. They are aware of it is an economical race running out with the others and, who goes through the finishing line first, will get the lion’s share from the pie as well.

In that case, it is obvious that the knowledge must be shared with the required ones and on the other hand, not with the non-desired ones. For instance, a new employee of a R&D department of a technology-leading company, must discern firstly the existing products and get the know-how behind it for understanding strength and weak characteristics of these, so that he could focus on potential solutions in terms of improving the product quality or reducing costs and etc. It is only possible to transfer this knowledge with the help of specific documentation methods, trainings and holding the communication channels with experienced colleagues all the time. During the whole process, it must be secured as well that these confidential knowledge hasn’t been spied, leaked, copied or transferred unexpectedly with the third parties.

Bukowitz and Williams (1999), defined knowledge sharing as an activity through which knowledge (namely, information, skills, or expertise) is exchanged among

people, friends, families, communities (for example, Wikipedia), or organizations. However knowledge is frequently described as an object. David Snowden indicated that, it is more appropriate to teach it as both a flow and a thing (Snowden, 2002). Knowledge as a flow can be related to the concept of tacit knowledge, (Polanyi, 1958 & Nonaka 1994-2009), while the difficulty of sharing knowledge is transferring knowledge from one entity to another, (Argote, 2000, Fan, 1998), it may become profitable for organizations to acknowledge the difficulties of knowledge transfer, adopting new knowledge management strategies accordingly (Snowden, 2002).

Bij et al. (2003), tested 10 factors in their study (including co-location, individual commitment, and risk-taking behavior) across 277 SBUs of US-based technology firms to determine which factors (if any) had an effect on knowledge sharing. The findings of the study demonstrated that with the exception of two factors (use of information technology and organizational redundancy), there was empirical support that each of the factors positively correlated with knowledge sharing.” (Jones, 2017, p. 2)

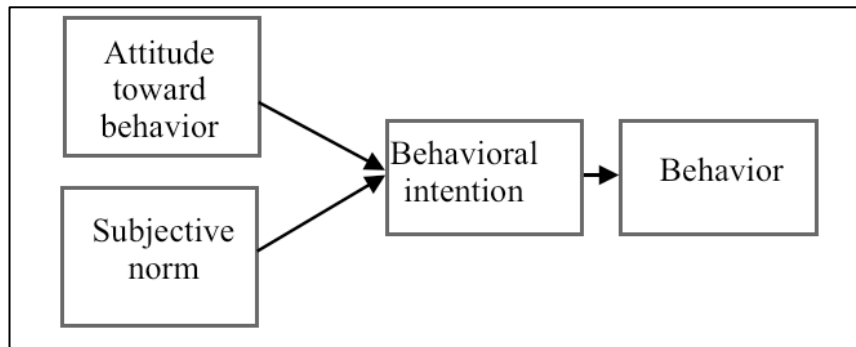
2.4.1 Theories of knowledge sharing

2.4.1.1 Theory of reasoned action (TRA)

“Theory of Reasoned Action (TRA) is a social psychology model, which explained the intention behaviour reasons” (Ajzen, 1985, cited in Razak, Zin, Pangil, Azlina, 2014, p. 188).

“The intention of an individual to perform a behaviour influenced by positive attitude and social norms is the degree to which an individual perceives how others approve the individuals participation in a specific behavior” (Bock, Zmud, Kim, Lee, 2005, cited in Razak, Zin, Pangil, Azlina, 2014, p. 188).

Figure 2. 7: Theory of Reasoned Action

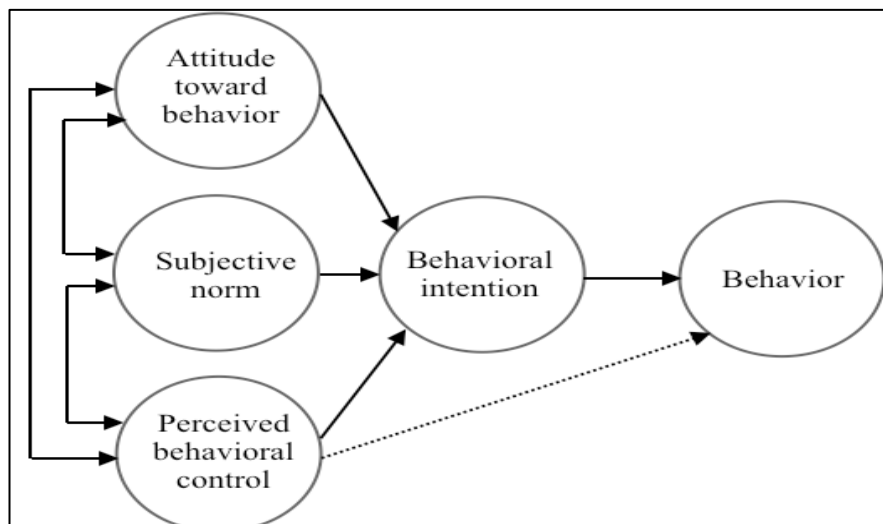


Source: Mahmood et al., 2016, Indian Journal of Science and Technology, p. 5

2.4.1.2 Theory of planned behavior (TPB)

“Many evidences show that TPB predicted behavior quite well in comparison to the ceiling imposed by behavioral reliability. Social attitude and personal traits is used in predicting and explaining the behavior. Social attitude and personal traits is used in predicting and explaining the behavior. Individual’s intention is the central factor in this theory. Intentions are assumed to capture the motivational factors that influence behavior, they are the indication of how hard people are willing to perform the behavior; of how much effort they are planning to exert, in order to perform the behavior” (Ajzen, 1991, cited in Mahmood, Dahlan, Hussin, Ahmad, 2016, Indian Journal of Science and Technology, p. 5)

Figure 2. 8: Theory of Planned Behavior



Source: Mahmood et al., 2016, Indian Journal of Science and Technology p. 5

2.4.1.3 Social exchange theory (SET)

“Social exchange theory is one of the models used in explaining knowledge sharing behavior. Social exchange theory is concerned with people behavior, outcomes or benefits, environment and the interpersonal network between individuals” (Blau, 1964, cited in Kwakye, Nor, American Journal of Economics and Business Administration, 2011, p. 69).

Kwakye and Nor (2011), discussed in their study also that, SET deals with exchange from cost-benefit point of view. They argued that, individuals intend to share knowledge in cases if they expect to profit from it or to get positive returns, but then they are not in to share it, if they perceive it as mere costs.

“According to the antecedent of SET, it is a theory that describes the rational behavior of individual to perceive the possibility of rewards that they would gain from the social exchange. There must be an actor that has own perception to another and has a belief to create the other’s perceptions needs” (Cry, Choo, 2010, cited in Razak, Zin, Pangil, Azlina, 2014, p. 190).

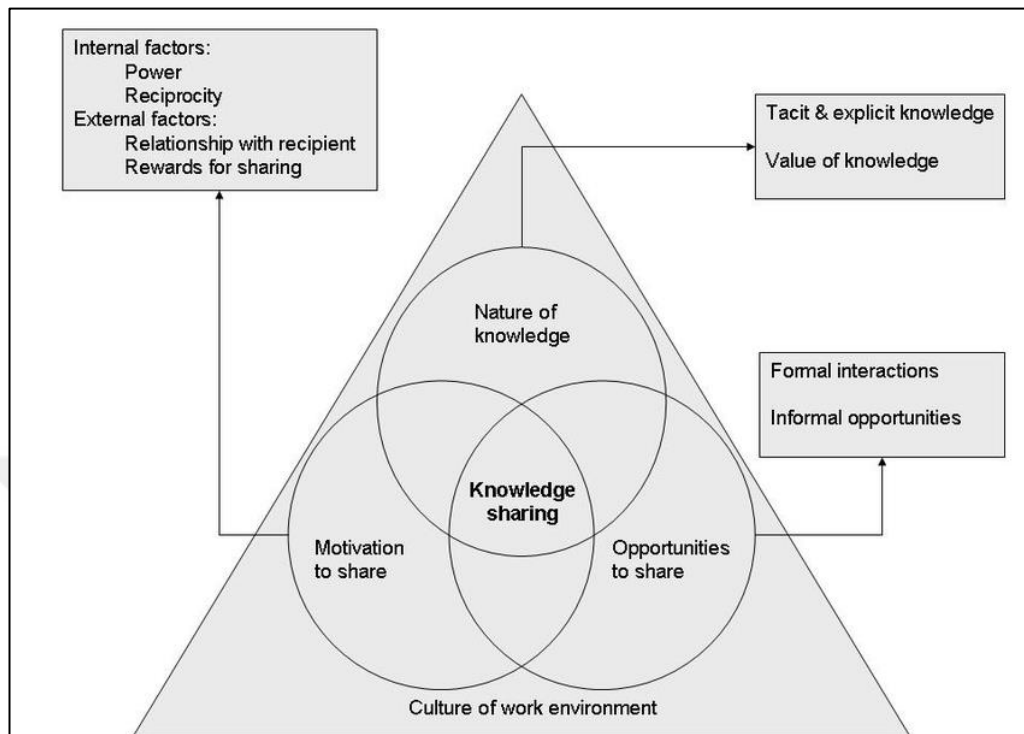
Blau conceptualized rewards into four types as below:

- i. Money,
- ii. Social approval,
- iii. Self- esteem or respect and
- iv. Compliances (Blau, 1964, cited in Razak, Zin, Pangil, Azlina, 2014, p. 190).

2.4.2 Factors influencing knowledge sharing

Ipe (2003) categorized that factors into four groups, which influence success of KS between individuals within an organization. These four factors are: Nature of knowledge, Motivation to share knowledge, Opportunities to do so, and the Culture of the organization (shown in the Figure 2.9).

Figure 2. 9: Factors Affecting Knowledge Sharing



Source: Ipe, 2003, cited in Mäki 2008, p.69

“Sharing is a common activity for everyone, but knowledge sharing within an organization is a complex and complicated issue. Knowledge sharing is the process by which knowledge of individuals is converted into a form that can be understood and used by other individuals” (Ipe, 2003, cited in Gaál, Szabó, Kovács, Csepregi, p.187).

Mäki (2008) reviewed approaches of Ipe (2003) to the factors of KS in his study. Ipe indicated that the first basic requirement for building a KS atmosphere is existence of motivation to share. On the other hand, motivation is being affected also from internal factors such as power, reciprocity and external factors e.g. and relationship with recipient and rewards for sharing (Ipe, 2003, cited in Mäki, 2008, p. 69).

Many scholars have reviewed a wide range of literature regarding the factors that influence KS. On the basis of point of origin, it is possible to classify them into 3 groups as below.

2.4.2.1 Individual factors

Kim and Mauborgne (1998) stated that ‘knowledge is a resource locked in the human mind’. Sharing and communicating knowledge are intangible activities that require a willingness of an individual who participate in such processes. Therefore Gosh (2004) suggested that knowledge sharing should be intrinsically rewarded (cited in Saretsalo, 2015, p. 27).

Deci and Ryan divided types of motivation into two groups, based on different goals, reasons that give rise to an action: extrinsic and intrinsic motivation. (Deci and Ryan, 2000). “Intrinsic motivation refers to motivation that is driven by an interest or enjoyment of the task itself or enjoying helping others, and exists within the individual rather than relying on any external pressure or reward. People who are intrinsically motivated are more likely to engage in the task, as well as work to improve their skills, which will increase their capabilities as well as the organization’s productivity” (Deci and Ryan 2000, Razmarita et al, 2016, p. 5).

“In the process of knowledge sharing, individuals serve as knowledge generator and knowledge receptor. Individuals generate knowledge by exchanging their ideas and experience through socialization.” (Nonaka, Tekeuchi, 1995, cited in Kwakye, Nor, 2011, p. 68).

As is classified by Ipe (2003), power is one of the prerequisites for the motivation. This was formerly argued by Huber (1982), and he stated that people with lower status or power are tend to share their knowledge with people with more status or power, and people with more status or power share their knowledge with people similar to themselves rather than with people with lower status or power. “*As a result, people with low status or low power are the least informed members of an organization*” (Huber, 1982, cited in Mäki, 2008, p. 70).

2.4.2.2 Organizational factors

Organizational culture determines values, beliefs, and work systems that could encourage knowledge sharing (Janz and Prasarnphanich, 2003, cited in Gaál et al., 2015, p. 187). *“Scholars indicate that organizational culture is central to an organization's ability to manage its knowledge more effectively”* (Davenport et al., 1998, cited in Kim, Lee, 2004, p. 282).

“Three components of organizational culture receiving consistent attention related to effective knowledge management include clear organizational Vision and Goals (King, 1999, Inkmen, Beamish 1997), Trust (Nonaka, I., and H. Takeuchi, 1995), and social network (Leoard, 1995, Nonaka, I., and H. Takeuchi, 1995)” (cited in Kim, Lee, 2004, p. 282).

“Trust has emerged as an important factor for knowledge sharing. Van Acker et al. (2014), found empirically that trust is related to the intentional and actual sharing of knowledge. Further, they found that knowledge sharing self-efficacy would be an important predictor of sharing and sharing intention” (Van Acker et al., 2014, cited in Noor, Hashim, Ali, 2014, p. 1316).

“Similarly, Chen et al, (2014) investigated the role of trust on knowledge sharing and they found that inter-organizational trust leads to better inter-organizational collaboration and knowledge sharing” (Chen et al., 2014, cited in cited in Noor, Hashim, Ali, 2014, p. 1316).

Trust between employees is an essential element of successful knowledge sharing within an innovative organization. Olander, Vanhala, Hurmelinna-Laukkanen, and Blomqvist (2015) stated that, considerable knowledge is embedded in the personnel, and if staff handles such knowledge carelessly or leaves taking the knowledge with them, not only is the door opened to harmful competitive imitation (McEvily & Chakravarthy, 2002) but the potential for disruption of the innovative activity also increases” (cited in Jones, 2017, p. 2).

Lauring (2009) took national culture also into account as a part of organizational culture and emphasized that organization culture is very powerful and influences daily work practices. “Knowledge is also bound to social structures and belongs to local communities of practice. Therefore it does not flow freely regardless of power relations.” Lauring determined that similar employees tend to interact more with each other than with non- similar employees. (Lauring, 2009, cited in Razmarita et al, 2016, p. 8).

Table 2. 3: Influences of National Culture on Knowledge Sharing

Influencing Factor	Influencing Attributes	Links to
National Culture	Individualistic – collectivistic Horizontal – vertical Long term orientation	Individual Organization Trust Willingness
Individual	Cultural distance Language fluency of the individual	Organization Trust Willingness
Organization	Incentives Management support for KS practices Existence of formal KS strategies Common goal	Individual Organization Trust Willingness
Trust	Competency-based Integrity-based Benevolence-based	Willingness Organization Individual
Tools	Support communication with others Ease of use	Willingness
Willingness	Sharing outside of group	Knowledge sharing

Source: Laitinen et al., *KM in Organizations*, Conference given in Maribor, 2015

Saretsalo (2015), argued also the importance of culture in terms of KS.

“Culture also plays a role in knowledge transfer but in a different manner. People’s willingness to share knowledge is shaped and influenced by people’s national cultural characteristics. For example, Hofstede’s cultural dimension theory classifies Finland to be an individualistic country where personal achievement is emphasized (The Hofstede Center, n.d.). (Saretsalo, 2015, p. 26).

2.4.2.3 Technological factors

Scholars also consider information technology infrastructure as an element crucial to the linkage of information and knowledge integration in organizations (Argyris and Schon, 1978, Duncan, 1972, Strover and Straubhaar, 2000). Kim and Lee argued that, organizations must develop a multi-purpose infrastructure, e.g. tools, devices and software, in order to enhance knowledge sharing capabilities (Kim, Lee, 2004, p. 282).

Technology was accused by playing not only an important role, but also it has a supportive duty. It contains four factors, which are listed as relevant in terms of knowledge sharing. These four factors are; IT infrastructure, IT for knowledge sharing (collaborative technology), codification and expert vs. distributed model (Beckman, 1999; Connelly & Kelloway, 2001; Davenport & Prusak, 2000; Dixon, 1999; 2000; Gottschalk, 2002; Jones, 2001; Nonaka & Takeuchi, 1995).

Noor et al, (2014) stated that traditional meaning of KS from IT implementation perspective included face-to-face, training, and reading of manual and instructions. However, due to the advancement in technology, social media has become one of the most important tool in terms of KS. (Noor et al, 2014). Ma and Chan (2014) evaluated the role of social media in knowledge sharing. According to their findings, elements of social media include altruism, perceived online attachment motivation, and perceived online relationship commitment influences knowledge sharing (Ma and Chan, 2014, cited in Noor et al, 2014). Enterprise social media is a facilitator of new ways of working along with new forms of knowledge sharing and interactions (Razmerita et al. 2016).

Mueller (2014) analyzed in his quantitative study users' willingness to share knowledge on Facebook groups. The findings show that reputation and self-worth influence knowledge sharing attitude. Further, element of social networking sharing culture (fairness, identification, and openness) are the most significant factors (Mueller, 2014, cited in Noor et al., 2014).

In this study, I will be analyzing the relationship between KS in the workplace and social media use in the workplace regarding cultural differences.

2.4.3 Knowledge sharing strategies in organizations

Niels Boer (2005), indicated that many researchers e.g. (Spender, 1996, p.52; Cook and Brown, 1999, cited in Boer, 2005, p. 27) argued that knowledge may be held individually as well as collectively, referring a group or an organization. Some of them even argued that individual and group knowledge are distinct entities (Cook and Brown, 1999, cited in Boer, 2005, p. 27). However, in his opinion, neither an organization nor organizational knowledge shouldn't have a meaning as an independent 'materialized' existence.

First of all, it should be out of question that knowledge can be shared or transferred within the individuals of an organization, only if they are willing to do it and if they are aware of that the knowledge exists.

Miller (1996) described organizational learning as the acquisition of knowledge by individuals and groups who are willing to apply it in their jobs, in making decisions and influencing others to accomplish tasks important for the organization. In that case, Miller indicated that, a single instance of organizational learning may be easily copied by other organizations, but continuous organizational learning has cumulative effects that are much more difficult to imitate and it is an important capability that can serve as a source of sustainable competitive advantage. Therefore, most of the highly competitive organizations invest in developing the capability for continuous organizational learning (Miller, 1996, cited in DeNisi et al., 2003, p. 15).

Ciborra (1998) claimed that, sharing of knowledge constitutes a major challenge in the field of knowledge management, because some employees tend to resist sharing their knowledge with the rest of the organization (Ciborra, 1998). However, most of the studies says that, the perception about knowledge sharing has showed changing

tendency since then. Organizations are setting up several strategies to enhance the knowledge sharing and improve the quality of the shared knowledge between their employees. Before that, we should understand what exactly knowledge sharing should be including.

Tsui (2006) argued basic requirements in her thesis and indicated that what should knowledge sharing basically to be consist of:

- i. *“Any activity that aims to share knowledge and expertise among researchers, policymakers, service providers, and other stakeholders to promote evidence-based practice and decision making.*
- ii. *“Situations in which knowledge sharing may not be an explicit goal, but knowledge and expertise are shared nonetheless.”* (Tsui, 2006, p.5).

Jacobson (2018) described knowledge sharing platform as following: “A software system that extends the functionality of a knowledge base with features such as a multiple file formats (including video), deep search within content, a Q&A engine, and social interactions to keep knowledge current, trustworthy, and quickly findable” (Bloomfire, 2018). In another one, Youngren (2015) on the same magazine, five suggestions were given to readers for increasing knowledge sharing within the organization:

- a. Designing the office space as conducive to be conversations, for example; by having coffee stations throughout the office instead of having in the kitchen or less formal meeting tables in conference rooms etc.
- b. Encouraging various forms of knowledge sharing, e.g. by setting aside face-to-face collaborations, scheduling off-site events and meetings etc.
- c. Incentivizing knowledge sharing by rewarding team members in various ways, for instance, praising a remarkable performance via an email, post or announcement, giving small prizes like t-shirts, coffee mugs etc.
- d. Revamping trainings and onboard methods e.g. assigning to each new hire a mentor, applying job shadowing and asking new hires for their feedbacks.

e. Developing the right knowledge sharing tool and bringing into use (Bloomfire, 2015).

Treser (2016) explained this basic conditions for knowledge sharing in a company by declaring that it is only possible if the following conditions are met:

- i. *“The knowledge provider can describe the information to be shared.*
 - ii. *“The knowledge recipient must be aware that knowledge exists and is available.*
 - iii. *“The knowledge recipient must be able to access the knowledge provider”*
- (Treser, 2016).

Knowledge sharing can be very beneficial to organizations. In the case of Toyota, the car manufacturer found success through knowledge sharing with other organizations in its supply chain (Dyer & Nobeoka, 2000, p. 316, cited in Jones, 2017, p. 2). Toyota shared knowledge on lean production techniques within its supply chain, resulting in superior productivity (Dyer & Nobeoka, 2000). As a result of this knowledge sharing, Toyota sustained steady growth from 1965 to 1990 (Dyer & Nobeoka, 2000).

Stan Garfield, a KM speaker and an author, emphasized first three steps in his article (Medium Magazine, 2016) in order to start a successful knowledge management strategy within an organization: On the top of list stands ‘Top-3 Objectives List’ of challenges and opportunities. It is being followed with ‘9 Answers’ phase, which is basically about providing the answers of questions about people, process and the technology. As the last step, rest is only defining your KM strategy. In addition, he arrays ten basic categories of KM strategy as following: motivate, network, supply, analyze, codify, disseminate, demand, act, invent, and augment. *“However, technology constitutes only one of the many factors that affect the sharing of knowledge in organizations, such as organizational culture, trust, and incentives.”* (Cabrera & Cabrera, 2002).

Bakhuizen (2012, p. 3) remarked in the same way vital importance of knowledge sharing for the success of organizations. She argued that, since the members of an organization are not always good at locating information and experts, exchanging

knowledge with others outside in their close circle, and sharing information that is tacit and difficult to communicate, organizations started building IT-systems and offering rewards to improve knowledge sharing, which was mostly in vain.

As Youngren (2015) specified in the final, the most important phase is finding the right tool and defining the methodology in terms of knowledge sharing. Within the help of developing technology, organizations have great numbers of options as well as individuals.

At that point we should consider The 4th Industrial Revolution and so-called ‘Internet of Things’ as well, which is going to end up by turning all the object around us into smart-ones.

2.4.4 Knowledge sharing after ‘*Internet of Things*’

The 4th Industrial Revolution (4IR) is mainly built on a load-bearing column, which is called ‘*Internet of Things*’. This means to us basically capability of standard devices and objects to get connected to internet, which we already use every day in our daily lives. For instance there are already lots of Human-Machine Interfaced (HMI) applications by passenger cars. It has been already in use since years, that multi-media unit of a passenger car is getting connected to smart phone, which enables us manage the smart phone via Bluetooth technology and showing all on the touchscreen of the car e.g. playing the music in the playlist, answering the phone call etc. This was obviously the transition period. Today, we are able to get connected to internet directly through the car without needing a smart phone application. This enables us via using specific software to remote the car, e.g. turn on/off AC unit, headlamps etc., to command on voice-control to carry out a search on Google for the way to the closest gas station or getting the weather forecast etc. It is even possible to send the car to park itself or call it back from the car parking without being in it. IoT will keep developing such abilities of connectivity and it will change our lives and habits probably even faster than we think. On the other hand, it would be wrong if we relate all only to skills of internet. Artificial Intelligence plays an important role behind it. So that, we will

see soon not only fully connected vehicles on the streets but also autonomously driven ones.

“The IoT can be considered as a series of disruptive technologies influencing the daily life of both individuals and businesses” (Atzori et al., 2010, cited in Santoro, Vrontis, Thrassour and Lezi, p.6).

“In fact, modern firms are increasingly developing and implementing disruptive ICTs in several business processes in order to increase their efficiency and innovativeness through new methods of knowledge flow and Data/Information gathering” (Del Giudice and Della Peruta, 2016, cited in Santoro, Vrontis, Thrassour and Lezi, p.6).

“Internet of Things (IoT) is network of physical devices connected to each other for exchange of data and information through sensors and actuators. These actuators and sensors are embedded on to these devices which allow them to exchange data with each other” (Techparks, 2013).

As a result digitalization of our lives, all these smart devices enable an easy and fast knowledge sharing between individuals and/or within teams through the websites and applications. Lee Rainie compiled the changes that IoT will bring into our lives through his speech in KM World Conference 2014, in terms of knowledge as following:

- i. “Expands the building blocks of knowledge,
- ii. Balloons the places where knowledge originates,
- iii. Changes the process of creating knowledge,
- iv. Changes your capacity to gain knowledge,
- v. Changes your capacity to dispense knowledge,
- vi. Changes the value of knowledge,
- vii. Changes the velocity of creation knowledge” (Rainie, 2014).

Klaus Schwab (2017), the Executive Chairman of the World Economic Forum, indicated that the need for technological innovation and digital productivity are largely

resulting from the Fourth Industrial Revolution. He described the extent and nature of the Fourth Industrial Revolution as following:

“Consider the unlimited possibilities of having billions of people connected by mobile devices, giving rise to unprecedented processing power, storage capabilities and knowledge access. Or think about the staggering confluence of emerging technology breakthroughs, covering wide-ranging fields such as artificial intelligence, robotics, the internet of things, autonomous vehicles, 3D printing, nanotechnology, biotechnology, materials science, energy storage and quantum computing, to name a few” (Schwab, 2017, World Economic Forum).

2.5 SOCIAL MEDIA

2.5.1 Meaning of ‘Web 2.0’ and introduction to social media

How did we spend our whole spare time before they did not exist? It turned into a third hand for me. Everyone must have heard such questions and comments at least once in his life. With the help of developing technology, nowadays most of the people has internet connection on smart mobile devices. Therefore it became so easy to surf on internet, to chat with friends, to post pictures or to watch videos independently from wherever they are. People uses such social networking sites (SNS) like Facebook, Instagram, LinkedIn, Twitter, YouTube etc. almost every day. Some of them are specified for more like personal purposes, while some of them are being used also in professional life.

Social networking sites have been brought into use firstly in the 1990s. As an example for precursor networking websites ‘Theglobe.com’ can be given, which was released in 1995. Following other websites such as GeoCities and Tripod.com enabled their users to interact with other users via chat rooms and other tools. They also provided easy-to-use publishing tools along with free web space. Classmates.com made it possible to finding a friends by linking people via emails.

In consideration of its short developing lifetime, social media was still defined in various ways. Kietzman and Kristopher (2011) described it as interactive computer-

mediated technologies that facilitate the creation and sharing of information, ideas, career interests and other forms of expression via virtual communities and networks. (Kietzman, Kristopher, 2011). Social media has a variety of broad definitions, such as "*collaborative online applications and technologies which enable and encourage participation, conversation, openness, creation and socialization amongst a community of users*" (Bowley, 2009, p.15), web-based tools and practices enabling participation and collaboration based on individuals' activities (Storey et al, 2010). Surowiecki (2005) defined that social media is to make use of the "*wisdom of the crowd*". Group of people are better at problem solving, fostering decision making than the individuals alone. New ways of inspiring and exploiting knowledge sharing are forcing organizations to expand their knowledge sharing technologies and practices (Mentzas et al, 2007, cited in Gaál et al., 2015, p. 188).

Gaál et al., (2015) compiled prior studies about Web 2.0 and found that the term 'Web 2.0' was put forward for the first time by O'Reilly Media in 2004 (O'Reilly, 2005, cited in Gaál et al., 2015, p. 188). In their study was that also mentioned that, according to Anderson (2007), Web 2.0 is commonly used as being associated to the technologies, which allow individuals to interactively participate with information and with other individuals, and to build networks based on mutual personal or professional interest. He added that, Web 2.0 enables social networking, thus is also referred to as the social media. Technologies such as - blogs (e.g. Blogger), video sharing (e.g. YouTube), presentation sharing (e.g. SlideShare), social networking services (like Facebook, LinkedIn), instant messaging services (like Skype, WhatsApp etc.) and groupware (like Google Docs) - foster a more socially connected platform (Anderson, 2007, cited in Gaál et al., 2015, p. 188).

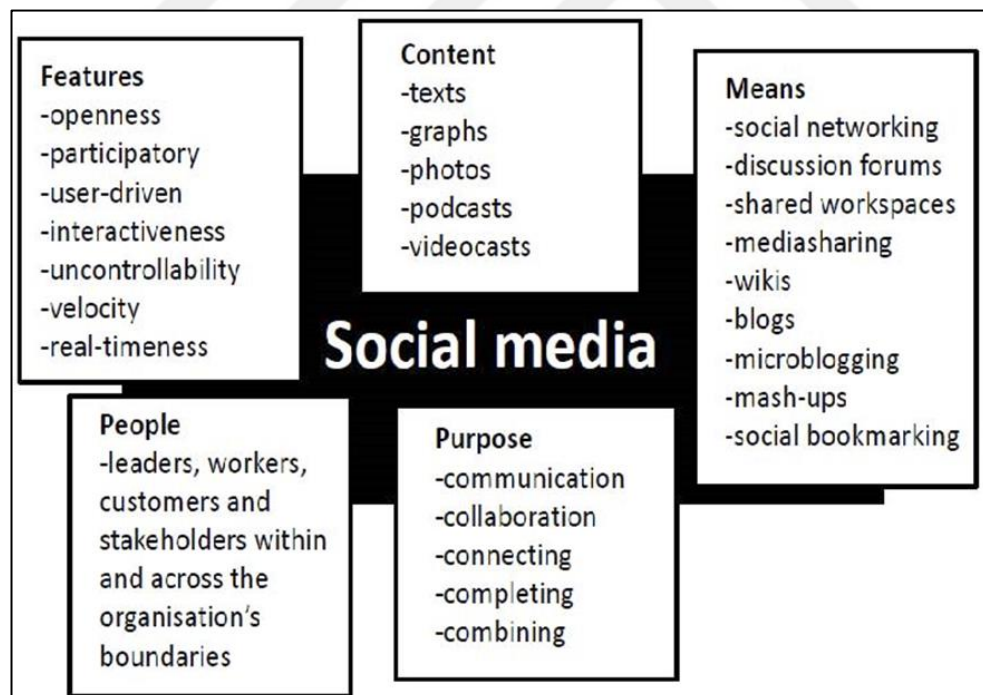
The variety of stand-alone and built-in social media services currently available introduces challenges of definition; however, there are some common features:

- i. "*Social media are interactive Web 2.0 Internet-based applications*" (Obar, Wildman, 2015).

- ii. *“User-generated content, such as text posts or comments, digital photos or videos, and data generated through all online interactions, is the lifeblood of social media”* (Obar, Wildman, 2015, Kaplan, Heinlein, 2010).
- iii. *“Users create service-specific profiles for the website or app that are designed and maintained by the social media organization”* (Obar, Wildman, 2015, Ellison 2007).
- iv. *“Social media facilitate the development of online social networks by connecting a user's profile with those of other individuals or groups”* (Obar, Wildman, 2015, Ellison 2007).

“Though there are a lot of SNSs with a lot of different features, the main backbone of all the SNSs consists visible profiles that display an articulated list of friends, who are also users of the system” (Patel, 2011, p.4).

Figure 2. 10: Elements of Social Media



Source: Gaál et al., 2015, p. 189, Jalonon, 2014, p.137

2.5.2 Types of social media by purpose of use

Table 2. 4: The Most Popular Social Networks Worldwide as of July 2018

	NetworkName	Number of Users (in millions)
1	Facebook	2,270
2	YouTube	1,900
3	WhatsApp	1,500
4	Facebook Messenger	1,300
5	WeChat	1,040
6	Instagram	1,000
7	QQ	806
8	QZone	563
9	Tik Tok	500
10	Sina Weibo	411
11	Twitter	336
12	Reddit	330
13	Baidu Tieba	300
14	Skype	300
15	LinkedIn	294
16	Viber	260
17	Snapchat	255
18	Line	203
19	Discord	200
20	Pinterest	200

Source: Statista

Vuori (2011) exemplified social media platforms in consideration of 5C aspect, whereby 5C stands for communication, collaboration, connecting, completing and combining (Vuori, 2011, Jalonen, 2014, cited in Gaál et al., 2015, p. 188):

- a. *Communication*: social media enables sharing, storing and publishing contents, and expressing opinions: Blogs (e.g. Blogger) and microblogs (e.g. Twitter), instant messaging service (e.g. WhatsApp, Skype), presentation sharing (e.g. Slide Share), video sharing (e.g. YouTube).
- b. *Collaboration*: social media enables collective content creation and edition without location and time constraints: Wikis (e.g. Wikipedia), Groupware/shared workspaces (e.g. Google Docs).

- c. *Connecting*: social media provides chances of networking with other people, socializing oneself into the community: Social networking services (e.g. Facebook, LinkedIn).
- d. *Completing*: social media tools are used to complete content by describing, adding or filtering information, tagging contents, and showing a connection between contents: Visual bookmarking tool (e.g. Pinterest), News aggregator (e.g. Bundle, Digg).
- e. *Combining*: social media tools are developed for mixing and matching contents. Combination of pre-existing web services that allow a certain user within a platform to use another application, in a specific window, without the need to get out of the initial website e.g. Mash-ups like Google Maps (Bonson and Flores, 2011).

“Kaplan & Haenlein (2010) divided the social media sites on the basis of self-disclosure or self-presentation which refers to the conscious or unconscious revelation of personal information (e.g., thoughts, feelings, likes, dislikes) that is consistent with the image one would like to represent to others” (Kaplan, Haenlein, 2010, cited in Alokandanda, Kaiyum, 2011, p. 11).

2.5.3 Advantages of social media use in organizations

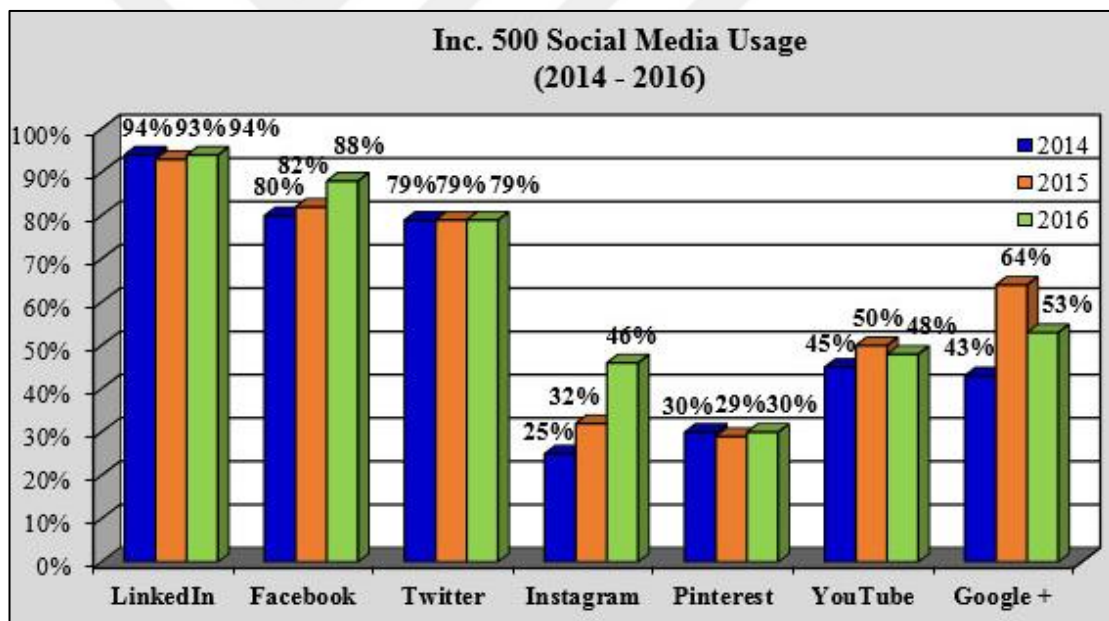
The use of social media technologies such as blogs, wikis, social networking sites, social tagging, and microblogging is proliferating at an incredible pace. One area of increasing adoption is organizational settings where managers hope that these new technologies will help improve important organizational processes. (Treem, Leonardi, 2012, p.143)

Barnes and Daubitz (2017) evaluated social media interests of ‘Inc. 500’ companies in their study and indicated that, depending upon rapidly development of social media, companies continue to look for the platforms, which fits their needs. In the Figure 11 it is shown that social media usage for the last three years among Inc. 500 companies. According to the chart, Eighty-two percent of the companies use at least one form of social media (Barnes and Daubitz, 2017).

Dolan and Pamela (2009) gave an example for using fields of Wikis. Medpedia is one of about 70 medical wikis that allows physicians and researchers exchange their information and share their knowledge. While the information is free and publicly available, contributions are limited to those provided by medical professionals (Dolan, Pamela, 2009).

Petersen and Thompson reviewed social media has an enormous impact on businesses. *“Platforms such as Twitter, YouTube and Facebook are used to not only promote brands and advertise new products but also are effective media that provide customer service and resolve disputes”* (Petersen, Thompson, 2019).

Figure 2. 11: Social Media Use of Inc. 500 Companies

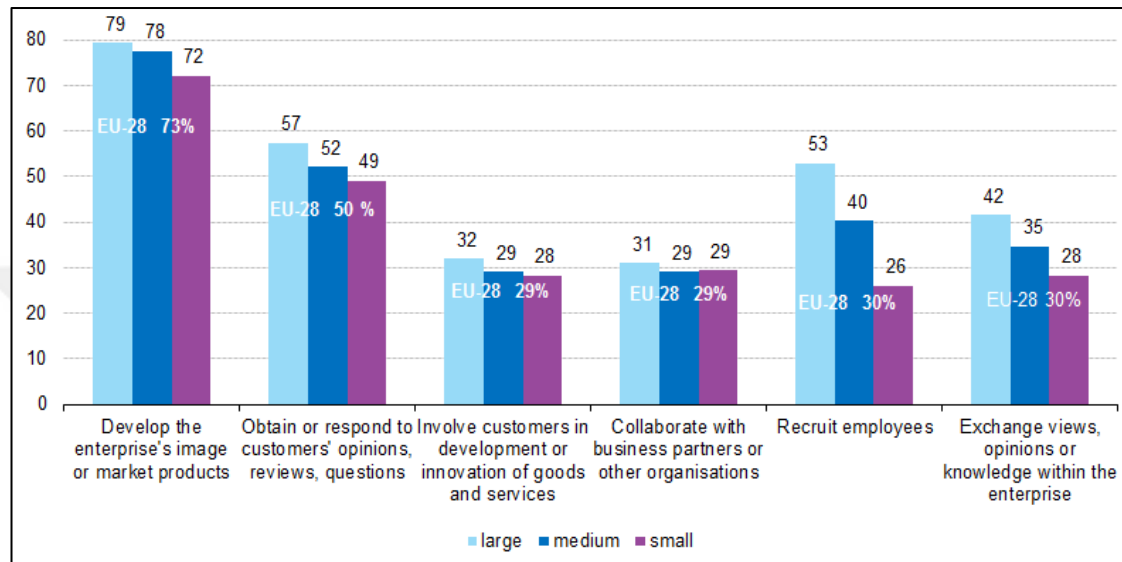


Source: Barnes and Daubitz, 2017

Mutuku (2017) considered social media as an efficient way of conducting business by which reducing costs and increasing income. She strengthened this proposition with an example about social media advertising. She compared general costs of social media use as an advertising tool with other forms of advertising where the others bring

extra costs to have their advertisement on TV or radio program. Unlike everything on social media is free (Mutuku, 2017).

Figure 2. 12: Enterprises Using Social Media, by Intended Use and Size, EU-28, 2013, EU-28, 2013



Source: Eurostat

Smith (2017), listed advantages of using social media in organizations as following:

- i. “Enables Social Advertising
- ii. Increases Brand Awareness
- iii. Increases Inbound Traffic
- iv. Improves Search Engine Optimization
- v. Increases conversion rates
- vi. Enables to satisfy customers
- vii. Enhances brand loyalty”

In conclusion, if social media used wisely, it may turn into a powerful business tool.

In that case it may have provide some opportunities and benefits such as:

- a. Increasing the revenue,
- b. Reducing advertising costs,
- c. Reaching millions of users through social media marketing,

- d. Extending brand awareness and enhancing brand image by attracting customers,
- e. Increasing efficiency of customer and public relations,
- f. Enabling researches e.g. for the market or consumer satisfaction by simplifying feedback collection,
- g. Networking,
- h. Expanding the searching diameter regarding possible recruitments,
- i. Optimizing search-engine discoverability.

2.5.4 Role of social media in knowledge sharing within organizations

Argote and Ingram (2002) argued that previously face-to face meetings and discussions in groups were among the most influential platforms for knowledge sharing. Nowadays through social media, since people are easily connected to each other, it enhances knowledge sharing process as well. Blogs, forums and social networking sites were given as examples for diverse applications of social media. (Argote and Ingram, 2002, cited in Ghazali et al., 2016). Singh (2011), emphasized important similarities between knowledge management and social media. He indicated that, people use them both to obtain and access new information with the use of technology and for both of them individuals are necessary who are going to provide new inputs and create new content intended for sharing. On the other hand, he argued an important difference between these two. He separated these two terms by specifying knowledge management as what the organization, or what the superiors want you to know, with other words what they assume is important for your work, meanwhile social media, is a tool that tells you what your peers think important, based on their own life experiences so far, and you are the decision-maker to judge or agree with what they have to say (Singh, 2011).

Grundin et al. (2006), indicated that, social media technologies such as blogs, wikis, social networking sites (SNS), micro blogs, or social tagging tools may enhance communication within organizations differently from traditional computer-mediated communication (CMC) technologies e.g. e-mail, teleconferencing, intranets, decision-support systems, and instant messaging (Grudin, 2006; McAfee, 2006; Steinhuser,

Smolnik, & Hoppe, 2011). Baker and Green (2008) argued that referring to the role of social media use in organizations: “Social media will change your business” (Baker & Green, 2008). DuBois took a one step further and even questioned, whether social apps can kill enterprise software (DuBois, 2010).

2.5.5 Enterprise social networking (ESN)

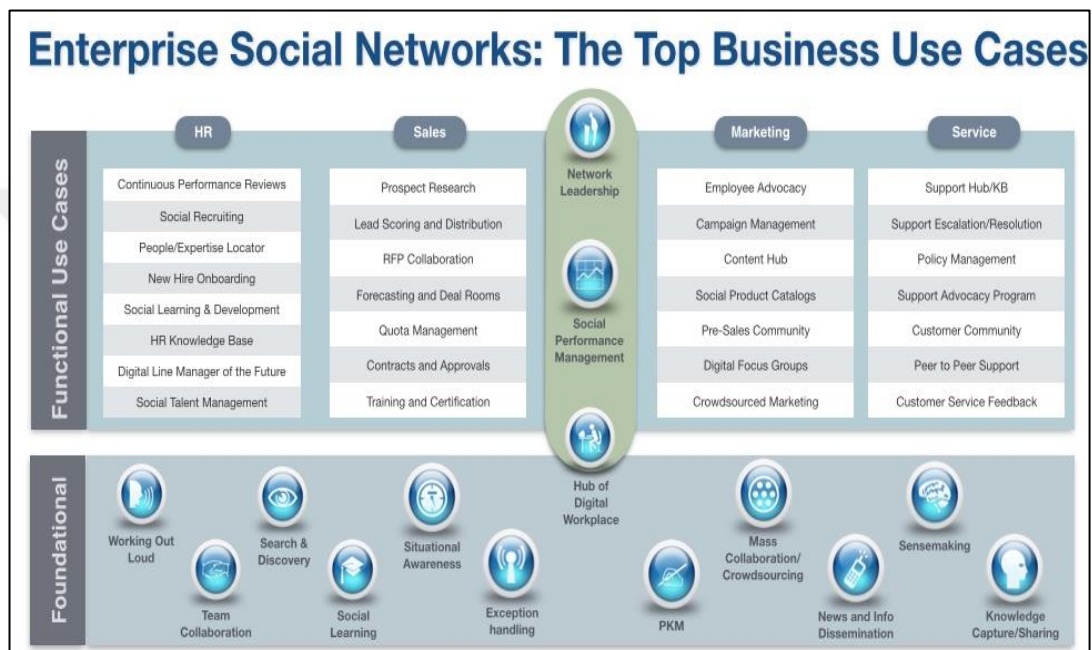
As is seen, we don't know yet, whether conventional enterprise software would fully replaced by social media, but Geyer et al., (2008), reviewed IBM's Beehive research project in their study as one example which were based on their Lotus Connections product (Geyer et al., cited in Michael, 2008). “Many companies are encouraging employees to use their social networks so they can connect with other employees, help people to socialize when they take a break, or even help contribute to other work-related issues” (DiMicco et. al, cited in Michael, 2008).” Brandel (2008), stated that, not only IBM but also many companies have already started to build their own social networks behind the firewall, to promote collaboration amongst their employees. “Microsoft calls it TownSquare. Deloitte hosts D Street. IBM has its Beehive, and Best Buy its BlueShirt Nation” (Brandel, 2008). Based on research by Gartner (2010), 50% of enterprises will be using some sort of social network by 2012.

Some companies have started to teach their employees about cloud computing and SaaS (Software as a Service). These new technologies are being added to the enterprise social networks. These networks are being implemented to get employees collaborating and sharing tips and ideas about how to improve the workplace.

Enterprise Social Networking, (ESN), is use of social networks such as specialized software, websites or applications internally, which is provided by the enterprise, and where employees interact to each other and share business activities. Public social networks e.g. Facebook, Instagram etc. contain the content related to personal activities, while the enterprise social networking is providing an online meeting point, where the business topics such as projects, solutions, problems, experiences and new

ideas can be shared and exchanged. ESN platforms mostly offer a similar functionality to public ones, but unlike these, the enterprise social networks limit users to connect and share information with employees within the organization (or business partners) (Business Productivity, 2013).

Figure 2. 13: Intended Use of ESN



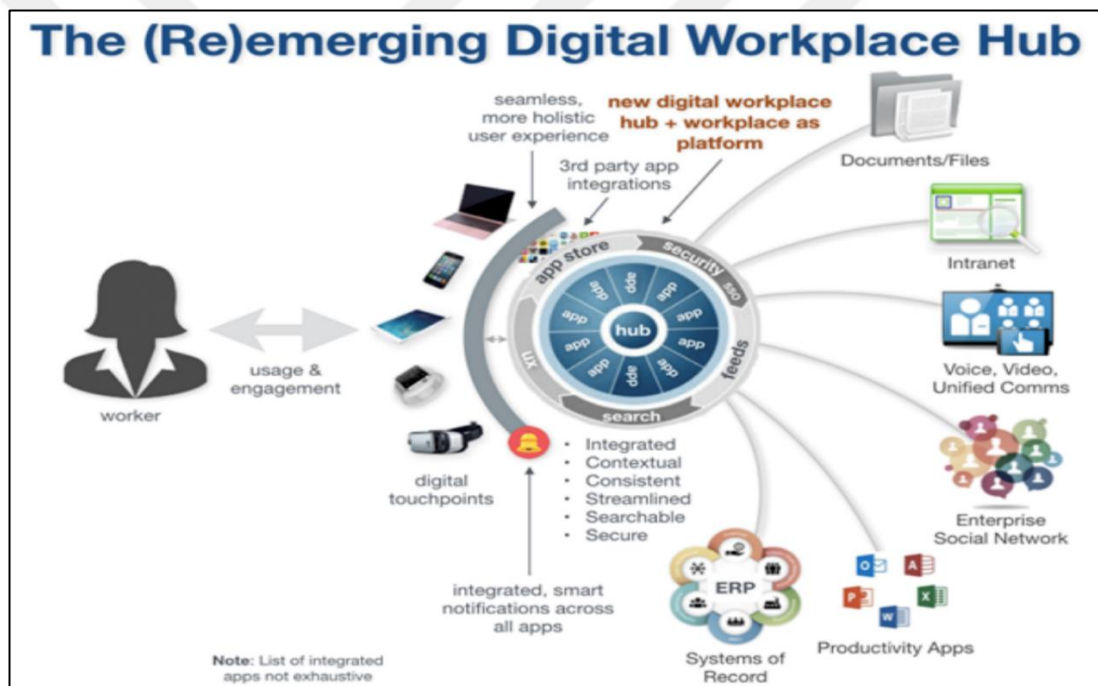
Source: Hinchcliffe, 2017

Major benefits of ESN were listed in an article on Business Productivity Magazine and improved knowledge sharing is described as one of the major benefits of enterprise social networking is since all the discussions, documents, people and other related information will be reachable and discoverable by searching the enterprise social network. On the other, all these documents and also past activities will be archived. In addition, the impact of enterprise social networking was discussed on helping increase transparency within an organization and on encouraging participation at all levels (Business Productivity, 2013).

Overby (2016) argued that, people might be in need of different tools and sharing portals, unlike having one tool, which does not suit all people, contexts, and use cases.

She explained it with an example as following: at the team level, some teams might prefer real-time wiki-based collaboration to manage projects and to apply documentation or explore new ideas, while others are using combination of real-time chat (using Slack or Microsoft Teams) combined with document sharing (Dropbox, Box, Sharepoint, Yammer etc). Some other may cover all of this in a working-group through ESN. Therefore, she emphasized that, integration of all IT tools is becoming much simpler, and with flexible user licensing (especially in the cloud), there is no longer a barrier to offering a variety of tools to suit different needs (Overby, 2016).

Figure 2. 14: Enterprise Social Networking



Source: Hinchcliffe, cited in Overby, 2016

2.5.6 Risks of social media use in organizations

There are also some risks and threats of having information flow and more freely within an organization. Business Productivity Magazine touched this risks also in their article (Business Productivity, 2013). Major threats that organizations are concerned about are cyber security and information security for sure. They indicated that, confidential information, such as sensitive HR documents, might be shared with

anyone, who doesn't have to see it. There is also the threat of data leaks, confidential information about product roadmaps or business strategy, being leaked to the competition.

Table 2. 5: Top Five Social Media Risks for Business

Risk	Impact
Use of personal accounts to communicate work-related information	Privacy violations Corporate reputation damage Loss of competitive advantage
Posting of photographs or information that link users to their employees	Brand damage Corporate reputation damage
Excessive use of social media in the workplace	Network utilization issues Loss of productivity Increased risk of exposure to viruses and malware
Use of company-supplied mobile devices (such as smartphones) to access social networking sites	Infection of mobile devices Data theft from mobile devices Data leakage Bypassed enterprise controls

Source: ISACA, 2010

It is absolutely necessary that you have a strategy in place and that your IT department is involved in your enterprise social networking platform so that they can make sure to put proper policies in place (like removing access for employees who have left the company). ISACA, a Global association for enterprise governance of information technology (IT), urges organizations to actively address the following potential risks:

- a. Viruses or malwares,
- b. Brand hijacking,
- c. Lack of control over content,
- d. Unrealistic customer expectations of 'Internet-speed' service,
- e. Non-compliance with record management regulation.

Organizations do not have to face only to IT-related risks, but also they are concerned about the possible negative impact of enterprise social networking on productivity.

They afraid of whether employees spend too much time on social networking sites and become distanced to responsibilities and working environment.

2.6 HOFSTEDE'S CULTURAL DIMENSIONS

A Dutch social psychologist, former employee of IBM, and Professor Geert Hofstede founded the personnel research department of IBM in 1965 and managed it until 1971. Between 1967 and 1973, he conducted a survey study in order to understand national values differences across the worldwide subsidiaries of this multinational corporation. He compared the answers of more than 100000 of IBM employees in different countries. Firstly, he started to his research with 40 largest countries, and then extended it to 50 countries and 3 regions (Whatsonmymind, 2010).

As a result of this study, Hofstede developed a model by using factor analysis. In the beginning, Hofstede's theory contained four dimension, which enables to analyze cultural values. These were Individualism versus Collectivism; Uncertainty Avoidance; Power Distance (strength of social hierarchy) and Masculinity-Femininity (task-orientation versus person-orientation). In 1991, study of Michael Harris Bond among students in 23 countries inspired Hofstede to generate a fifth dimension, which was named as 'Long Term Orientation' (Minkov, 2007).

As of 2010, Hofstede enlarged this research up to 76 countries by applying the IBM study on different international populations (Hofstede, 2010) and generating the sixth dimension, which was names as 'Indulgence'. Hereby, the 6D Model of National Culture was finalized.

2.6.1 National culture

Hofstede defined culture as *“the collective programming of the mind distinguishing the members of one group or category of people from others.”* He investigated the influences of culture on values in the workplace. The application of this research is

used worldwide in both academic and professional management settings (Hofstede Insights, 2019).

2.6.2 Dimensions of national culture

The six dimensions of national culture are defined after completion of that extensive research by Professor Geert Hofstede, Gert Jan Hofstede, Michael Minkov and their research teams. They indicated that, “the cultural dimensions represent independent preferences for one state of affairs over another that distinguish countries (rather than individuals) from each other” (Hofstede Insights, 2019).

Hofstede found that, the country scores on the dimensions are relative, in that we are all human and simultaneously we are all unique. In other words, culture can only be used meaningfully by comparison. The model contains six cultural dimensions.

2.6.2.1 Power distance index (PDI)

According to Hofstede, *“this dimension expresses the degree to which the less powerful members of a society accept and expect that power is distributed unequally. The fundamental issue here is how a society handles inequalities among people”* (Hofstede Insights, 2019).

Tai (2004), argued that the level of power distance is significantly focused on the emphasis of hierarchical relations and status privileges (Tai, 2004, cited in Hofmann, 2018, p. 7).

Hofstede indicated that, people in societies with a higher power distance, accept the hierarchical array and they don’t oppose. *“In societies with low power distance, people try to equalize the distribution of power and request arrangements for inequalities of power”* (Hofstede Insights, 2019).

Smit (2012) indicated that, cultures with low PDI, the emotional distance is small. There are more democratic or consultative relations between expecting and accepting

power and gave Netherlands, United Kingdom, Germany and Nordic countries as examples, while France, Belgium and Arab countries were given as examples for high PDI cultures.

2.6.2.2 Individualism (IDV)

Hofstede explained the Individualism, as a preference, “which can be defined for a loosely-knit social framework in which individuals are expected to take care of only themselves and their immediate families” (Hofstede Insights, 2019).

“It’s opposite, Collectivism, represents a preference for a tightly-knit framework in society in which individuals can expect their relatives or members of a particular in-group to look after them in exchange for unquestioning loyalty. A society’s position on this dimension is reflected in whether people’s self-image is defined in terms of “I” or “we” (Hofstede, 2010).

2.6.2.3 Masculinity (MAS)

Hofstede defined the Masculinity as a preference in society and associated this dimension with such terms success, heroism, self-confidence, assertiveness, and material rewards. Masculine societies are mostly more competitive. Femininity, is defined as a preference and associated with cooperation, submission, supporting the weak creatures of the society and the quality of life. According to Hofstede, this kind of societies are mostly more consensus-oriented. Hofstede indicated that, the association of Masculinity versus Femininity is sometimes also used for ‘*tough versus tender*’ cultures in the business context.

2.6.2.4 Uncertainty avoidance (UAI)

Uncertainty Avoidance Index indicates the ratio of members in a society, who feels uncomfortable with uncertainty and ambiguity. The fundamental issue here is how a society deals with the fact that the future can never be known. Countries with a high UAI, have strong beliefs and rigid behaviors, and are interpret as intolerant of unorthodox behavior and ideas, while countries with a low UAI are more relaxed in attitudes.

2.6.2.5 Long term orientation (LTO)

Every society has to maintain some links with its own past while dealing with the challenges of the present and the future. Societies prioritize these two existential goals differently. Societies who score low on this dimension, for example, prefer to maintain time-honored traditions and norms while viewing societal change with suspicion. Those with a culture which scores high, on the other hand, take a more pragmatic approach: they encourage thrift and efforts in modern education as a way to prepare for the future. In the business context, this dimension is referred to as “(short-term) normative versus (long-term) pragmatic” (PRA). In the academic environment, the terminology Monumentalism versus Flexhumility is sometimes also used.

2.6.2.6 Indulgence versus restraint (IND)

Indulgence stands for a society that allows relatively free gratification of basic and natural human drives related to enjoying life and having fun. Restraint stands for a society that suppresses gratification of needs and regulates it by means of strict social norms.

3. METHODOLOGY

3.1 PURPOSE OF THIS STUDY

Raeth et al., (2009), emphasized in their study, although social media is already adopted by many of firms, there are still open points about integration of corresponding new technologies into organizational processes, which needs to be better understood by the communication researchers (Raeth, Smolnik, Urbach, & Zimmer, 2009, cited in Treem and Leonardi, 2012, p. 144). As in the literature review seen, KM is one of the important elements of organizational processes. At that point, it is obviously one of the main objectives for the corporations, is being able to provide an easy and safe knowledge sharing atmosphere among the employees, which is expected as an opportunity from social media, By this time, a wide range of studies have been conducted either on relation between social media behaviors and knowledge sharing, or about the correlation between cultural differences and social media behaviors. Besides, there were also cross-cultural studies implemented from a comparative point of view. They focused on impacts of cultural differences and compared characteristics of employees from different nations. For instance, Judith Hofmann (2018), investigated “Impacts of Cultural Dimensions on Social Media Behavior.” In this comparative study, she reached at least people from 9 different countries. In another example, Anell and Wu (2013), conducted also a comparative study and investigated “Knowledge management in Global Teams”, by comparing cultural differences between Swedish and Chinese IT employees of Volvo Group.

With the help of these studies, the relationship between social media behaviors and intention of knowledge sharing was several times argued. In the same way, impact of cultural differences both on knowledge sharing and social media behaviors were also often discussed. Similar to these prior studies, my main aim of curiosity based also on, investigating the impacts of cultural differences on tendency to share the knowledge in the workplace. In addition to this, I would like to do a research about the role of cultural differences on tendency of knowledge sharing via social media, by compounding this two topics by a third dimension. From this point of view, this study

deals with uncovering the factors, which are consisted of cultural differences and social media habits of nations, and that have influences on tendency to share the knowledge in the workplace.

In brief, three main purposes of this study are listed as following:

- i. Researching the correlation between cultural differences and attitudes towards social media with regard to influences on knowledge sharing,
- ii. Understanding the role of social media in knowledge sharing from a cross-cultural comparative point of view,
- iii. Finding the factors especially cultural differences, which may have impacts on tendency to share knowledge via social media.

On the other hand, in order to conduct a reliable research, as many as participants were asked with different gender, titles, level of education, work experience etc. However a uniform distribution was aimed during the Data collection, it was not possible obtaining equal responses from each of targeted countries.

3.2 RESEARCH DESIGN

An online survey was conducted within cross-cultural R&D employees from selected countries, who are working for a world-wide known manufacturer in the automotive industry, in the same business unit, and managed by the single roof organizational structure by C-level. This corporation is operating world-wide, and it contains various brands and business units within itself as well as several segmentations. Despite different branding and product strategies depending on markets, it belongs to the same holding. Name of this corporation will be held anonymous due to privacy policy and in order to avoid violate any of corporate procedures.

3.2.1 Data Collection

In consideration of the demographic distribution of participants, this study aims to pass a more significant judgement on impacts of cultural differences. Since each continent and nation has unique characteristics, I decided to look into four nations from three different continents. As representative of Latin American culture, Brazil- of European culture; Germany- of Eurasian culture; Turkey- and of Asian culture, specifically of the Far East; Japan have been selected and asked.

3.2.2 Research Method

An online survey conducted with a quantitative method approach. Questionnaires from prior studies were adopted, mixed and extended with a few additional questions. Survey questions were classified into groups in order to uncover the demographic indicatives, attitudes towards social media, importance of social media, trust in social media, knowledge sharing tendency, activities and type of shared content on social media and background of information safety. Demographic Indicatives were analyzed by the ANOVA-Method (Analysis of Variance) except for 'Gender', which was analyzed by the Independent Samples T-Test Method. Collected Data were analyzed by the Correlation Analysis and the Regression Analysis Methods. During the cultural comparisons, following five of the Hofstede's six cultural dimensions have been used as reference:

- a. Power Distance Index (PDI),
- b. Masculinity versus Femininity (MAS),
- c. Individualism versus Collectivism (IDV),
- d. Uncertainty Avoidance Index (UAI),
- e. Long Term Orientation versus Short Term Normative Orientation (LTO).

3.2.3 Research Questions

Research Question 1: Is there a correlation between social media attitudes of employees from different nations and tendency of knowledge sharing?

Research Question 2: Which of the Hofstede's cultural dimensions do have a noticeable influence on tendency to share knowledge via social media?

Research Question 3: Is there any significant differences consisted of nationality and having influence on tendency to share the knowledge via social media?

3.2.4 Hypothesis

H1: Social media attitudes have impacts on tendency to share knowledge via social media in the workplace.

H2: Cultural dimensions create various factors, which have influences on tendency to share knowledge via social media.

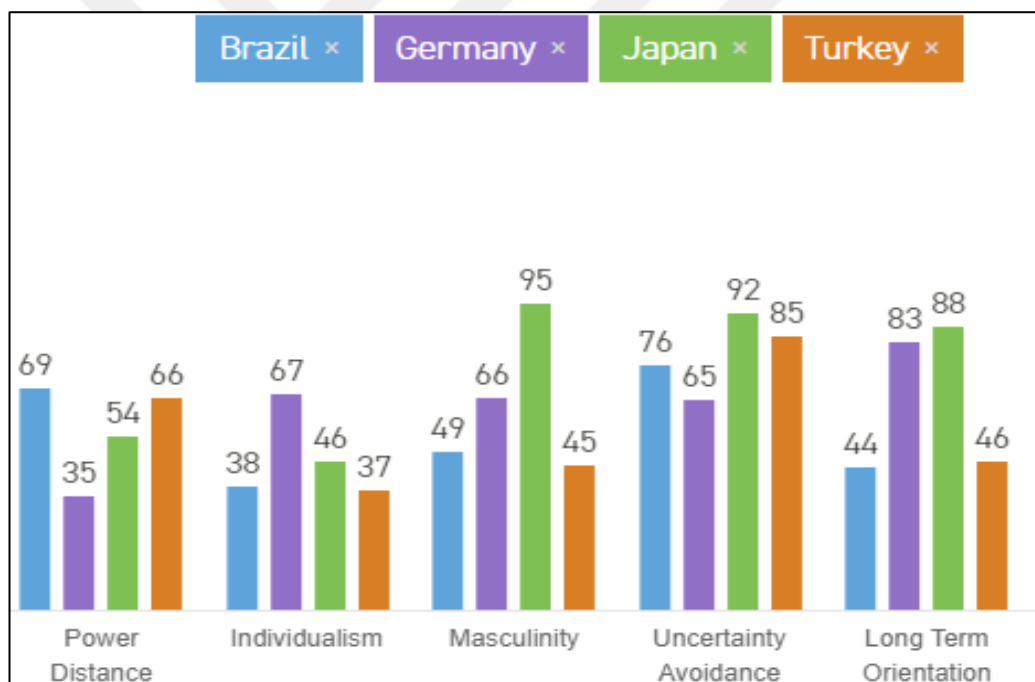
H3: National communities have significant unique characteristics, which effects tendency to share the knowledge via social media.

4. ANALYSIS & FINDINGS

This comparative study is designed on the basis of Hofstede's 6D Model (Hofstede's Cultural Dimensions Theory). In that case, only five of this dimensions will be used as reference. The last and newest dimension of Hofstede, 'Indulgence' will not be considered, during the analysis. In order to analyze results of this quantitative survey reliably, national characteristics of chosen countries) should be understood very well on the basis of Hofstede's Cultural Dimensions.

4.1 COMPARISON OF FOUR NATIONS BY HOFSTEDE'S 6D MODEL

Figure 4. 1: Comparison of Four Countries by Hofstede's Dimensions



Source: Culture Compass, Hofstede Insights, 2019

4.1.1 Comparison of four nations by *Power Distance Index (PDI)*

Hofstede classified Brazil with its score of 69, as a hierarchical country. This means, society accepts the hierarchy and thinks that existence of inequalities among people is normal. Hofstede supported this theory with an argument, that powerful people have

more benefits than the less powerful people in the society. Hofstede argued its reflections to the business life and indicated that, “in companies there is one boss who takes complete responsibility” (Culture Compass, Hofstede Insights, 2019).

Germany is described as a lower power distant country with its score of 35. It consisted of decentralized structure of the country and strong middle class. Hofstede indicated that, co-determination is comparatively prevalent and have to be considered by the management. He indicated that, communication occurs in a direct and participative understanding and control is disliked. “Leadership is challenged to show expertise and best accepted when it’s based on it” (Culture Compass, Hofstede Insights, 2019).

Japan is classified as a hierarchical society, with its borderline score of 54, although it is not that strong in comparison with the other Asian cultures. Hofstede indicated that, according to some foreigners, Japan is utilized extremely hierarchical due to their slow decision making process. Decisions must be confirmed by each hierarchical authority and also by the top management. On the other hand, despite their slow decision making process, there is no one top person who can take decision as in more hierarchical societies. Hofstede gave an example from Japanese education system, where it is taught, everybody was born equal and anyone can take in charge, if he works hard enough. (Culture Compass, Hofstede Insights, 2019).

Turkey is classified as a hierarchical country with its score of 66. This means, Turkish society is dependent, hierarchical and superiors often inaccessible. As different from the countries, ideal boss attributed to a father figure. Communication occurs indirect and the information flow is selective. Hofstede indicated that, a similar situation can be observed also in the family, where the father has a role of patriarch (Culture Compass, Hofstede Insights, 2019).

4.1.2 Comparison of four nations by *Individualism (IND)*

Brazil has a lower ranking (38) in this dimension. This makes Brazil a collectivistic country. People are integrated into strong, cohesive groups. Hofstede gave an example

about extended family structure, where uncles, aunts, grandparents and cousins are also parts of it. In business, it is important for Brazilians that building up a trustworthy and continuous relationships. Meetings usually start with general conversations in order to get to know each other before doing business. The preferred communication style is context-rich (Culture Compass, Hofstede Insights, 2019).

The German society is specified as rather individualistic, with its score of 67. As different from Brazil, there are commonly small families with core family concept (e.g. without aunts and uncles). Hofstede indicated that, ‘there is a strong belief in the ideal of self-actualization.’ Communication is classified as the most direct in the world, with an aspect of being ‘honest, even if it hurts’ – and providing a chance to learn from mistakes (Culture Compass, Hofstede Insights, 2019).

Hofstede indicated that, Japanese society is more on the collectivistic side with its score of 46. He added that, however it is not as collectivistic as most of other Asian countries. For instance, Japanese society does not have an extended family structure, if compared to other collectivistic societies such as China and Korea. Hofstede gave an example, that Japanese are famous for their loyalty to their companies, while Chinese are tend to change job more easily. In addition to that, Hofstede emphasized that also, job change is an individualistic thing to do. Therefore, Hofstede assumed Japanese society as being in-group is situational. “Japanese society is experienced as collectivistic by Western standards and experienced as Individualist by Asian standards. They are more private and reserved than most of other Asians” (Culture Compass, Hofstede Insights, 2019).

Turkish society, with a score of 37, is identified as a collectivistic society. This means that the “We” is more important than “I”; people tend to act in groups and belong to families, clans or organizations, who takes care of each other in exchange. Communication occurs mostly in an indirect way and the harmony of the group is also important. Hofstede underlined that, similar to Brazil, in order to build up trust, effort and time needs to be spent. Open conflicts are generally avoided. Feedbacks are given

usually indirect, also in the business environment (Culture Compass, Hofstede Insights, 2019).

4.1.3 Comparison of four nations by *Masculinity* (MAS)

Brazil could not be significantly categorized, due to its very average score of 49. The fact remains that, Brazil is a little on the Feminine side. According to Hofstede, a low score (Feminine) on this dimension can be interpreted as “dominant values in society are caring for others and quality of life” (Culture Compass, Hofstede Insights, 2019).

Germany is as a Masculine society, with its score of 66. Hofstede emphasized that, in German society, people live in order to work as opposite of work in order live. Employees expect from managers to be decisive and assertive. Status is often shown, especially by cars, watches and technical devices (Culture Compass, Hofstede Insights, 2019).

With its score of 95, Japan is identified as one of the most Masculine societies in the world. However, in combination with their so-called ‘mild collectivism’, it is not easy to observe that assertive and competitive individual behaviors which are often associated with Masculine culture. Instead of it, it is possible to observe severe competitions between groups. Famous workaholic Japanese society is also considered as another sign of their Masculinity. Hofstede underlined that, it is still not easy for women to climb up the career ladders in Japan in consideration of their Masculine norms such as hard and long working hours. (Culture Compass, Hofstede Insights, 2019).

Turkey is located on the Feminine side of the scale with a score of 45. This means softer aspects of culture such as leveling with others, consensus, sympathy for the underdog are important values. Conflicts are avoided in private and work life. Spare time is important for Turks in terms of spending it with the whole family, clan and friends. Status is shown, but this is associated more with the high PDI (Culture Compass, Hofstede Insights, 2019).

4.1.4 Comparison of four nations by *Uncertainty Avoidance (UAI)*

Brazil is classified as high on UAI, just as the majority of Latin American countries, with its score of 76. According to Hofstede, high level UAI is known with showing a strong need for rules and laws in terms of putting the life in order. Hofstede emphasized that, individuals need to obey these rules, even if they don't work properly. Therefore, just as in all high Uncertainty Avoidance societies, terms like bureaucracy, laws and, rules are very important in Brazil too. Brazilians like doing relaxing activities such as chatting with colleagues, enjoying a long meal or dancing with guests and friends. Hofstede indicated that, as a result of high score on this dimension, Brazilians are passionate and demonstrative people: emotions can be observed through the body language (Culture Compass, Hofstede Insights, 2019).

Germany is also assessed as one of the uncertainty avoidant countries, with its score of 65. All the activities like thinking, presenting or planning, and doing all of them systematically is relative important to Germans. Details are equally important to create certainty, for instance considering all the details while planning a project in order to avoid possible failures. In consideration of their low Power Distance Index score, since the responsibility of certainty is not covered only by the boss, Germans are tend to handle uncertainty based on their own expertise (Culture Compass, Hofstede Insights, 2019).

Japan is one of the most uncertainty avoidant countries on earth, with a score of 92. Hofstede indicated that, this is often attributed to the threat of natural disasters such as earthquakes, tsunamis, typhoons or volcano eruptions that Japanese society so far quite often faced to. In that conditions, Japanese people learned to live with such uncertain situations. Therefore they tend to have an emergency plan and take precautions against unexpected situations incl. natural disasters. Life is highly ritualized in Japan and this causes also a lot of ceremonies, where the rules standardized and written. For example, at weddings and funerals, it is all written in details in etiquette books regarding what people should wear and how people should behave etc. In business life, Japanese

society spend a lot of time and effort on feasibility studies and on assessing all the risks before starting a project. Managers follow the processes with details of facts and figures very close, before taking any decision. According to Hofstede, this high need for UAI causes a stable environment, where it is not easy to implement any kind of changes (Culture Compass, Hofstede Insights, 2019).

Turkey has also a high score of 85 on this dimension, which makes it also strongly uncertainty avoidant. Hofstede explained that with need of laws and rules. Society is tend to use rituals, in order to minimize anxiety. For instance, most of things are referenced with ‘Allah’, it might seem religious, but Hofstede emphasized that, these are traditional social patterns, which are used often in specific situations to ease tension (Culture Compass, Hofstede Insights, 2019).

4.1.5 Comparison of four nations by *Long Term Orientation* (LTO)

Brazil is classified as intermediate level in this dimension, with its average score of 44. With a high score of 83, Germany is assessed as a pragmatic country, according to Hofstede. He emphasized that, people from societies with a pragmatic orientation, believe that truth depends on time, context and situation. This kind of societies are tend to adapt traditions easily corresponding to changing conditions, with a tendency to save and invest resources by the status in order to achieve results. (Culture Compass, Hofstede Insights, 2019).

Japan is identified as one of the most long term oriented societies, with its score of 88. Japanese society think that their life is a short part of a long history of mankind. Therefore, fatalism is not a new thing for the Japanese society. Hofstede gave various examples from the business life. It is possible to observe the long term orientation by high rate of consistent investment in R&D even during economic crisis, prioritization of steady growth instead of having a profit on a quarter base etc. Hofstede explained the idea behind as following: “The companies are not here to make money every quarter for the shareholders, but to serve the stake holders and society at large for many

generations to come (e.g. Matsuhista)” (Culture Compass, Hofstede Insights, 2019). As similar to Brazil, Turkey is classified as intermediate level with its score of 46. This means, Turkish society could not be utilized as dominant on cultural preferences regarding LTO (Culture Compass, Hofstede Insights, 2019).

4.2 DEMOGRAPHIC INDICATIVES

Figure 4. 2: Map Overview of the Study Group

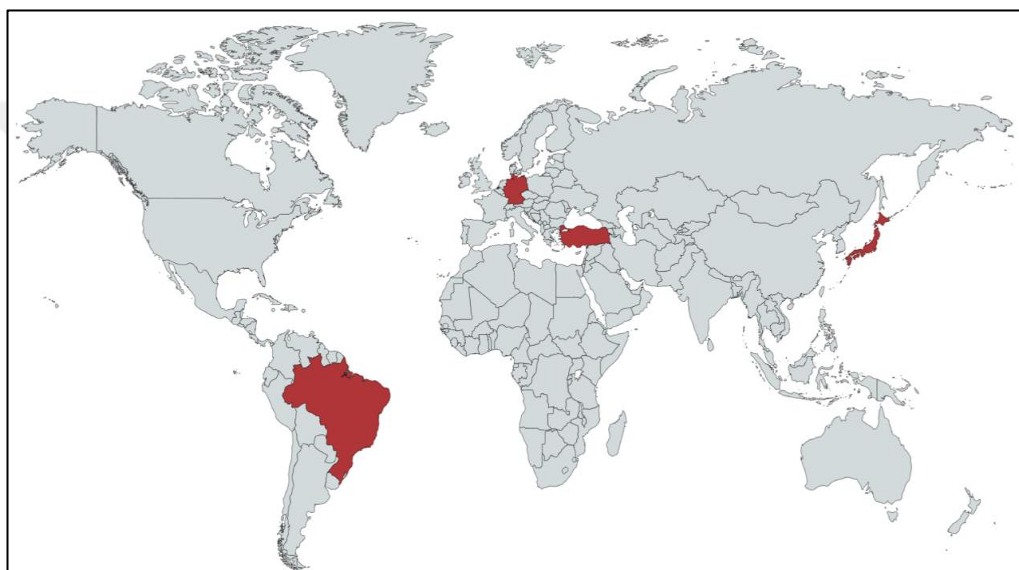
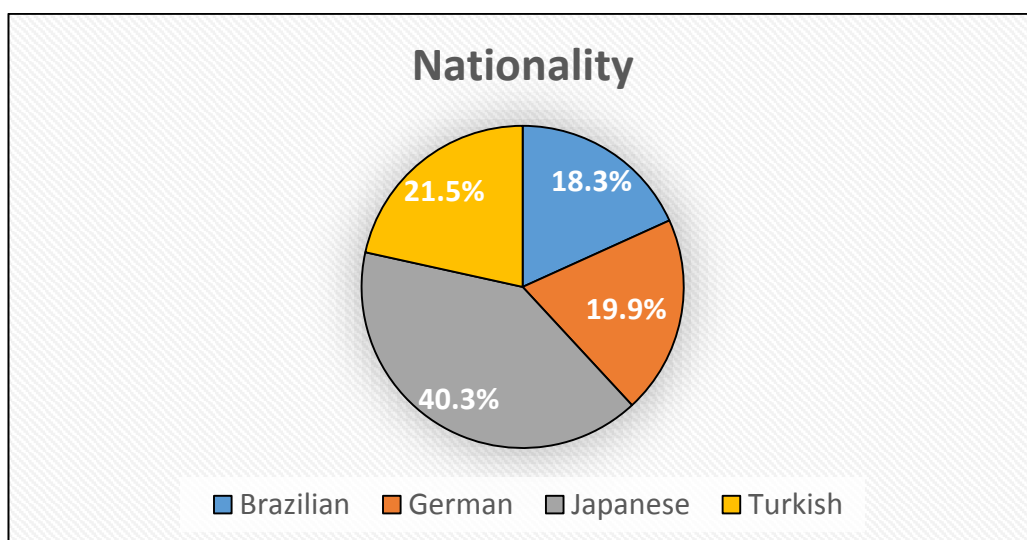


Figure 4. 3: Distribution of Participants by Nationality (in percentage)

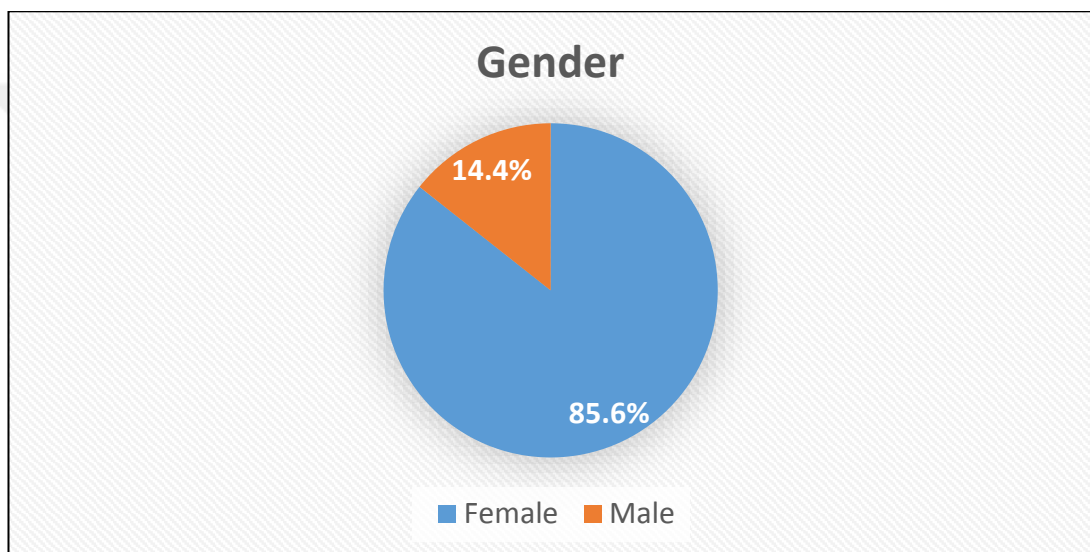


- a. 33 Brazilian,
- b. 36 German,
- c. 39 Turkish,
- d. 73 Japanese participants participated

Thereof;

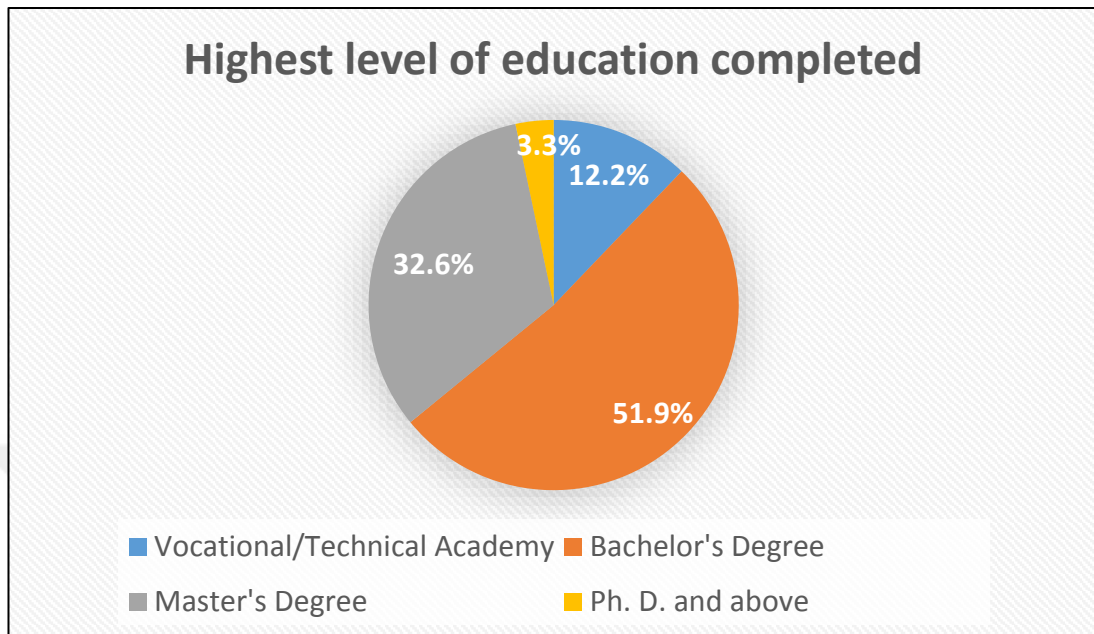
- a. 155 male;
- b. 26 female,

Figure 4. 4: Distribution of Participants by Gender (in percentage)



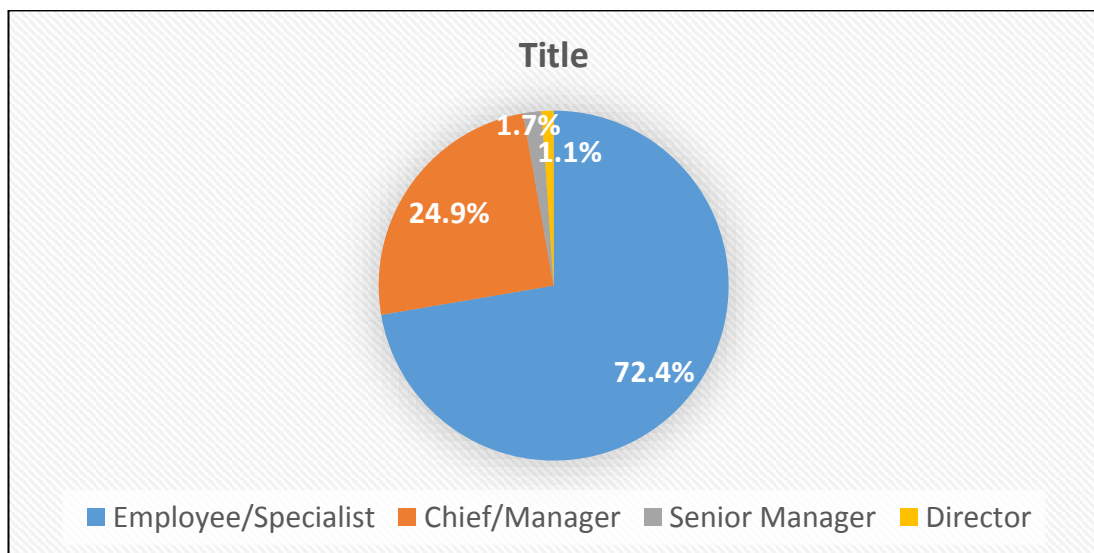
- a. 22 Vocational/Technical Academy Alumni,
- b. 94 Bachelor's Degree,
- c. 59 Master's Degree,
- d. 6 Ph. D. and above.

Figure 4. 5: Distribution of Participants by highest level of education completed



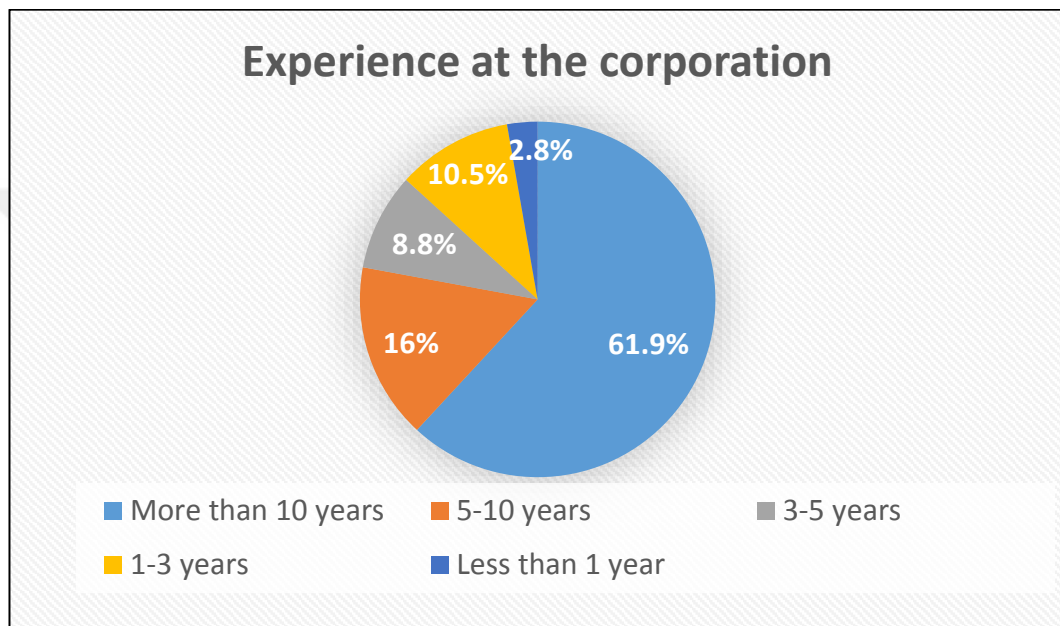
- a. 131 employees (specialists),
- b. 45 chiefs or managers,
- c. 3 senior managers,
- d. 2 directors.

Figure 4. 6: Distribution of participants by title



- a. 112 have an experience more than 10 years at the corporation,
- b. 29 have an experience between 5-10 years at the corporation,
- c. 16 have an experience between 3-5 years at the corporation,
- d. 19 have an experience between 1-3 years at the corporation,
- e. 5 have an experience less than 1 year at the corporation.

Figure 4. 7: Distribution of Participants by experience at the corporation



- a. 122 have a total work experience more than 10 years
- b. 32 have a total work experience between 5-10 years,
- c. 15 have a total work experience between 3-5 years,
- d. 9 have a total work experience between 1-3 years,
- e. 3 have a total work experience less than 1 year.

Figure 4. 8: Distribution of participants by total work experience

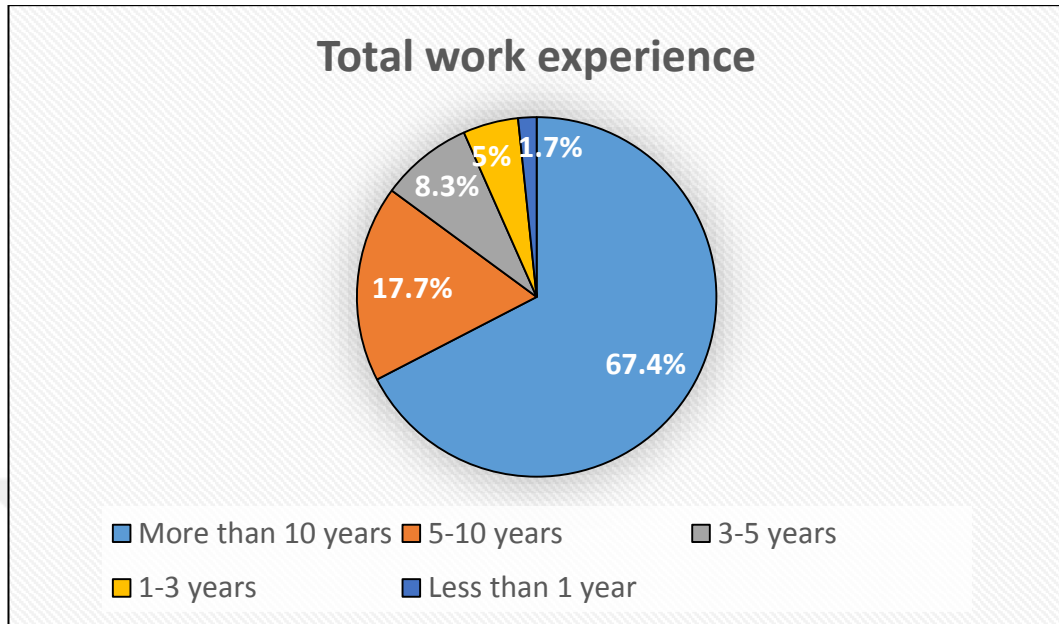


Table 4. 1: Descriptive mean statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Gender	181	1	2	1,86	,352
Highest level of education completed	181	1	3	2,24	,653
Title	181	1	4	1,31	,563
Experience at the Corporation	181	1	5	4,24	1,152
Work Experience in Total	181	1	5	3,94	,780
I am working at the R&D Department.	181	1	2	1,01	,105
Valid N (listwise)	181				

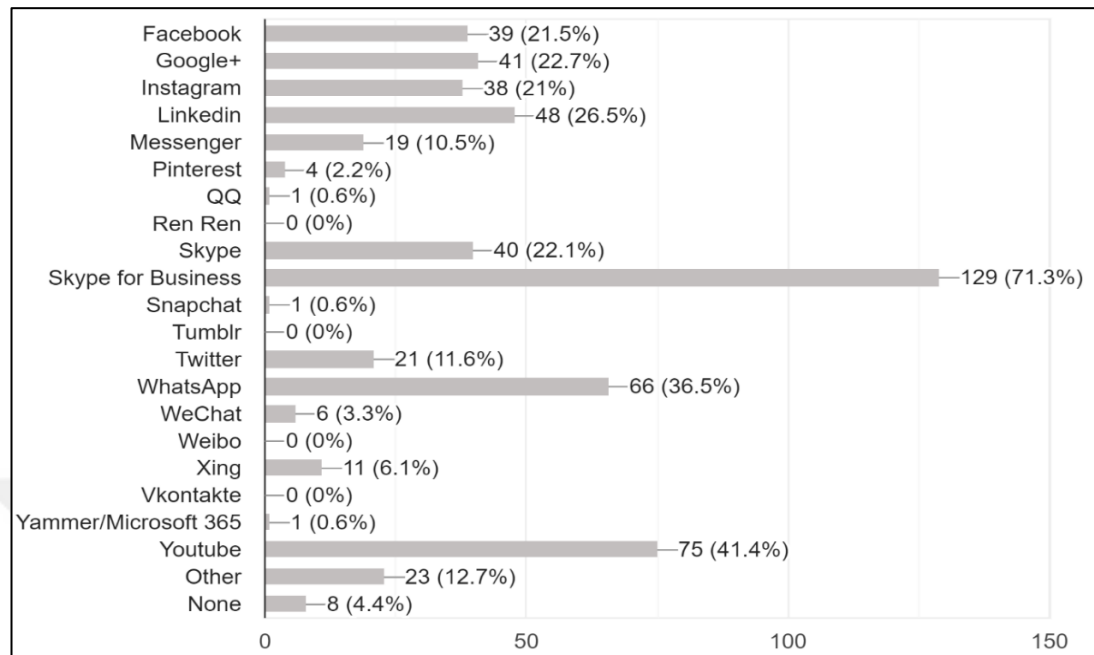
4.3 FINDINGS OUT OF MULTIPLE ANSWER QUESTIONS

After drawing a frame to the study with demographical indicatives, participants have been asked fifteen questions in the first part of the survey, in order to understand user's social media behaviors. The idea behind this part was identifying the general intention of social media use and, exploring the usage aims and areas in the daily life.

In the second section, three questions about the importance level of social media and four questions about trust were stated. The main purpose of these questions was to uncover, how important is the social media to individuals and, whether they trust in social media. In the third section, five questions were in total stated, which aimed to measure the general tendency to share knowledge. All questions in these three sections were stated in the same format, as well as the most of the questions in the last part, where participants extended their ideas on whether they strongly disagree, disagree, neutral, agree or strongly agree with the statement.

In addition to that, there were also four multiple answer questions in the last section, where the participants selected the social media platforms they prefer to use in general, intended use for personal and for business purposes in the workplace, and what kind of content do they usually share for both personal and business purposes. Findings out of these multiple answer questions are listed below. The most popular social media platforms that preferred to use in the workplace (see below the Figure 4.9):

Figure 4. 9: Social Media Preferences in the Workplace



- i. High incidence of the community (71.3%) use Skype for Business in the workplace, which is an instant messaging and videoconferencing tool provided by the corporation.
- ii. Almost half of the participants (41.4%) visit public video-sharing website YouTube in the workplace.
- iii. WhatsApp is the most preferred public instant messaging application (36.5%) and followed by Skype (22.1%).
- iv. Social networking and picture/video sharing sites Facebook, Google+ and Instagram are preferred almost at an equal rate.
- v. LinkedIn is the most preferred (26.5%) social networking site, which is used for professional networking and, followed by Xing (6.1%).
- vi. Twitter is the most popular microblogging application used in the workplace (11.6%).

Common areas of use of social media in the workplace for business purposes (see below the Figure 4.10):

- a. High incidence of the community (72.9%) use social media for communication purpose. It is followed respectively by networking (35.4 %), knowledge acquisition (33.1%) and, gathering information e.g. on new technologies or competitors etc. (32.6%).
- b. Only 13.3% of the community use social media for data storage purpose, 8.3% for public relations and 6.1% for promotion. 14.4% of the participants declared that, they use social media for other purposes as different from above listed ones.

Common areas of use of social media in the workplace for personal purposes (see above the Figure 4.11):

- a. High incidence of the community (64.6%) use social media for personal communication purpose. It is followed respectively by knowledge acquisition (34.8%).
- b. Almost quarter of the community (24.9 %) use social media for following breaking news, financial parameters and sports.
- c. 22.7% of the community use social media staying in touch with friends and follow their posts and 21.5% watching videos.
- d. %14.9 of the community use social media for online shopping/purchasing.
- e. %14.4 of the participants declared that, they use social media for networking/self-marketing, while %11 is using it also for job seeking.
- f. Only %6.1 of the participants use social media for personal blogging during the day.
- g. 18.8% of the community declared that, they use social media in the workplace also for other reasons, which are not listed above.

Figure 4. 10: Intended Use of Social Media in the Workplace for Business Purposes

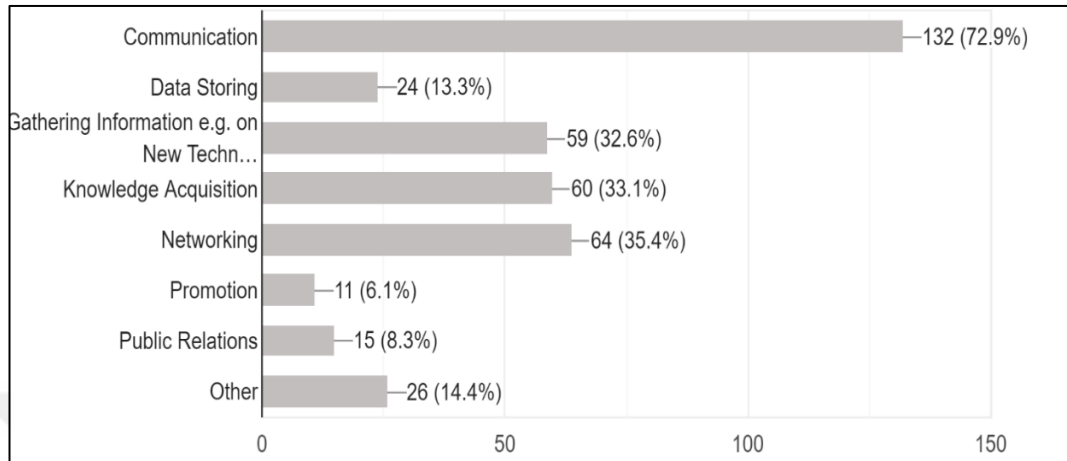
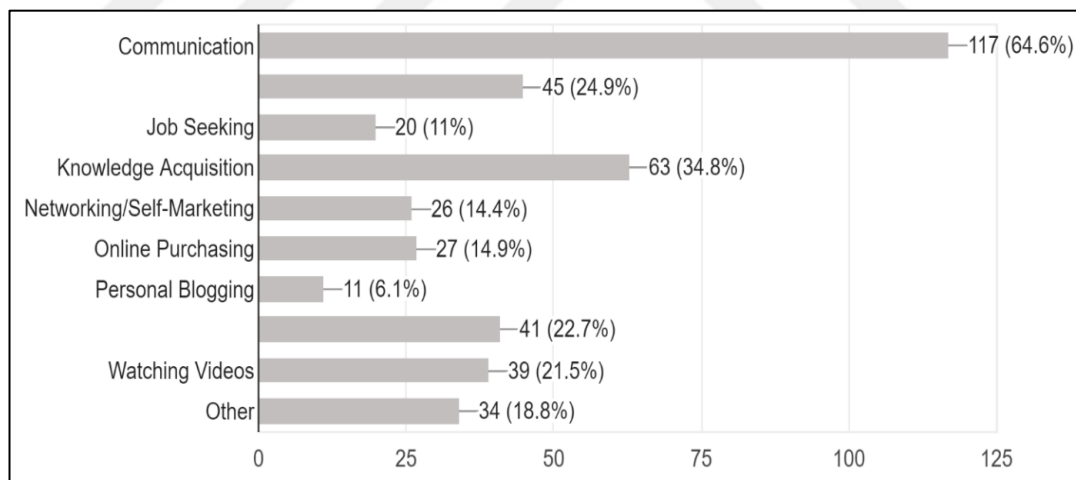


Figure 4. 11: Intended Use of Social Media in the Workplace for Personal Purposes

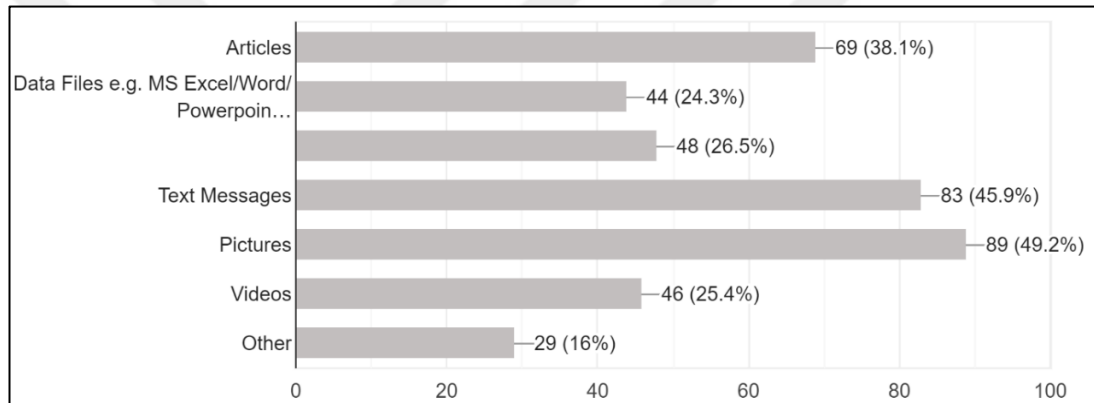


Mostly shared content on social media for both business and personal purposes (see below the Figure 4.12):

- a. Almost half of the community (49.2%) prefer to share pictures on social media and it is followed by text messages (45.9%).

- b. 38.1% of the community prefer to share articles, while 26.5% tend to share the link, which directs to the related website.
- c. Despite the high rate of YouTube use (%41.4), only 25.4% of the participants declared that, they share videos in the workplace.
- d. 24.3% of the community tend to share data files such as MS Excel, MS Word, MS PowerPoint or PDF.
- e. 16% of the community declared that, they share on social media other types of Data too, which are not listed above.

Figure 4. 12: Mostly Shared Content on Social Media



4.4 SCALE RELIABILITY & FACTOR ANALYSIS

In order to turn these answers of participants into useful Data for the factor analysis, all the answers were extracted to Excel-Sheet and matched with numbers from 1 to 5 as following:

- a. Strongly Disagree: 1
- b. Disagree: 2
- c. Neutral: 3
- d. Agree: 4
- e. Strongly Agree: 5

Through the analysis program ‘SPSS’, factor analysis was implemented and following seven factors have been defined:

- i. Factor 1: Intended Use of Social Media
- ii. Factor 2: Importance Level of Social Media
- iii. Factor 3: Trust in Social Media
- iv. Factor 4: Intention of Sharing Knowledge via Social Media
- v. Factor 5: History of Information/Cyber Security Trainings
- vi. Factor 6: Awareness of Corporate Policy regarding Social Media Use
- vii. Factor 7: Enterprise/Public Social Media Preference

Table 4. 2: KMO of Sampling Adequacy of Factor 1 (Total variance explained: 56.73%)

Factor Analysis		
KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,841
Bartlett's Test of Sphericity	Approx. Chi-Square	1034,706
	df	105
	Sig.	,000

Table 4. 3: KMO of Sampling Adequacy of Factor 2 and 3 (Total variance explained: 67.97%)

Factor Analysis		
KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,775
Bartlett's Test of Sphericity	Approx. Chi-Square	467,715
	df	21
	Sig.	,000

Table 4. 4: KMO of Sampling Adequacy of Factor 4, 5, 6 and 7 (Total variance explained: 65.58%)

Factor Analysis		
KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,784
Bartlett's Test of Sphericity	Approx. Chi-Square	586,901
	df	66
	Sig.	,000

4.5 FINDINGS OUT OF CORRELATION ANALYSIS

As stated in the third chapter, 'Gender' variable was analyzed by the Independent Samples T-Test method. No significant impact, consisted of gender variable, was found.

Table 4. 5: Relationship between Gender and Factors

T-Test					
Group Statistics					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
Factor1	1	26	3,2821	,69725	,13674
	2	155	2,8796	,71030	,05705
factor2	1	26	3,4615	,78359	,15368
	2	155	3,1097	,78414	,06298
factor3	1	26	2,2212	,85536	,16775
	2	155	2,3419	,67841	,05449
factor4	1	26	3,2308	,79593	,15609
	2	155	2,8258	,66214	,05318
factor5	1	26	3,8269	,92674	,18175
	2	155	3,5000	,96531	,07754
factor6	1	26	3,5192	,81830	,16048
	2	155	3,2871	,74282	,05966
factor7	1	26	3,7885	,72351	,14189
	2	155	3,5129	,70928	,05697

Table 4. 6: Results of ANOVA regarding Total Work Experience by Factors

		Sum of Squares	df	Mean Square	F	Sig.
Factor1	Between Groups	1,591	4	,398	,762	,551
	Within Groups	91,866	176	,522		
	Total	93,457	180			
factor2	Between Groups	2,349	4	,587	,936	,444
	Within Groups	110,449	176	,628		
	Total	112,798	180			
factor3	Between Groups	4,278	4	1,070	2,209	,070
	Within Groups	85,215	176	,484		
	Total	89,493	180			
factor4	Between Groups	5,395	4	1,349	2,909	,023
	Within Groups	81,613	176	,464		
	Total	87,008	180			
factor5	Between Groups	4,145	4	1,036	1,118	,350
	Within Groups	163,206	176	,927		
	Total	167,351	180			
factor6	Between Groups	6,104	4	1,526	2,774	,029
	Within Groups	96,811	176	,550		
	Total	102,914	180			
factor7	Between Groups	,865	4	,216	,416	,797
	Within Groups	91,387	176	,519		
	Total	92,251	180			

The relationship between the demographic indicatives and above defined factors were analyzed by the ANOVA-Method and following correlations were achieved:

- Title is found out in correlation with Factor 5.
- Experience at the corporation is found out in correlation with Factors 3, 4 and 6.
- Total work experience is found out in association with Factor 4.

Table 4. 7: Results of ANOVA regarding Nationality by Factors

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Factor1	Between Groups	1,442	3	,481	,925	,430
	Within Groups	92,015	177	,520		
	Total	93,457	180			
factor2	Between Groups	9,158	3	3,053	5,213	,002
	Within Groups	103,640	177	,586		
	Total	112,798	180			
factor3	Between Groups	,992	3	,331	,661	,577
	Within Groups	88,501	177	,500		
	Total	89,493	180			
factor4	Between Groups	9,415	3	3,138	7,159	,000
	Within Groups	77,593	177	,438		
	Total	87,008	180			
factor5	Between Groups	1,473	3	,491	,524	,666
	Within Groups	165,878	177	,937		
	Total	167,351	180			
factor6	Between Groups	4,593	3	1,531	2,756	,044
	Within Groups	98,322	177	,555		
	Total	102,914	180			
factor7	Between Groups	1,346	3	,449	,874	,456
	Within Groups	90,905	177	,514		
	Total	92,251	180			

In consequence of the analysis by the ANOVA-Method regarding ‘Nationality’ variable, following connections were captured (see Table 4.7):

- Factor 2 showed a significant difference between German (mean value: 2.7) and Turkish nations (mean value: 3.4).
- Factor 4 showed a significant difference between Japanese (mean value: 2.7) and Brazilian (mean value: 3.1); as similar to between Japanese and Turkish (mean value: 3.1) nations.

Furthermore, in order to uncover relationship between defined factors and chosen Hofstede’s Cultural Dimensions (Power Distance Index, Individuality versus

Collectivity, Masculinity versus Femininity, Uncertainty Avoidance Index and Long Term Orientation versus Short Term Normative Orientation), correlation analysis was implemented.

In consequence of analysis, following correlations were ascertained:

- i. Individualism was found in correlation with Factor 2.
- ii. Power Distance Index was found in correlation Factors 2 and 4.
- iii. Masculinity was found in negative correlation with both Factors 4 and 6.
- iv. Uncertainty Avoidance was found in correlation with Factor 2 and, in a negative correlation with Factor 4.
- v. Long Term Orientation was found in negative correlation with both Factors 2 and 4.

Table 4. 8: Correlation Analysis between PDI and Factors

Correlations									
		Factor1	factor2	factor3	factor4	factor5	factor6	factor7	PD
Factor1	Pearson Correlation	1	,626**	,286**	,477**	-,009	,103	,004	,121
	Sig. (2-tailed)		,000	,000	,000	,904	,166	,960	,104
	N	181	181	181	181	181	181	181	181
factor2	Pearson Correlation	,626**	1	,212**	,504**	,036	,116	-,007	,239**
	Sig. (2-tailed)	,000		,004	,000	,629	,119	,928	,001
	N	181	181	181	181	181	181	181	181
factor3	Pearson Correlation	,286**	,212**	1	,351**	,038	,152*	-,071	,050
	Sig. (2-tailed)	,000	,004		,000	,614	,042	,342	,505
	N	181	181	181	181	181	181	181	181
factor4	Pearson Correlation	,477**	,504**	,351**	1	,103	,164*	,061	,155*
	Sig. (2-tailed)	,000	,000	,000		,169	,028	,417	,037
	N	181	181	181	181	181	181	181	181
factor5	Pearson Correlation	-,009	,036	,038	,103	1	,160*	,222**	-,056
	Sig. (2-tailed)	,904	,629	,614	,169		,031	,003	,451
	N	181	181	181	181	181	181	181	181
factor6	Pearson Correlation	,103	,116	,152*	,164*	,160*	1	,151*	,016
	Sig. (2-tailed)	,166	,119	,042	,028	,031		,043	,833
	N	181	181	181	181	181	181	181	181
factor7	Pearson Correlation	,004	-,007	-,071	,061	,222**	,151*	1	,012
	Sig. (2-tailed)	,960	,928	,342	,417	,003	,043		,870
	N	181	181	181	181	181	181	181	181
PD	Pearson Correlation	,121	,239**	,050	,155*	-,056	,016	,012	1
	Sig. (2-tailed)	,104	,001	,505	,037	,451	,833	,870	
	N	181	181	181	181	181	181	181	181
**. Correlation is significant at the 0.01 level (2-tailed).									
* Correlation is significant at the 0.05 level (2-tailed).									

Table 4. 9: Correlation Analysis between IDV with factors

		Correlations							
		Individualism	Factor1	factor2	factor3	factor4	factor5	factor6	factor7
Individualism	Pearson Correlation	1	-,117	-,255**	-,062	-,107	,070	-,010	-,014
	Sig. (2-tailed)		,118	,001	,409	,150	,349	,898	,856
	N	181	181	181	181	181	181	181	181
Factor1	Pearson Correlation	-,117	1	,626**	,286**	,477**	-,009	,103	,004
	Sig. (2-tailed)	,118		,000	,000	,000	,904	,166	,960
	N	181	181	181	181	181	181	181	181
factor2	Pearson Correlation	-,255**	,626**	1	,212**	,504**	,036	,116	-,007
	Sig. (2-tailed)	,001	,000		,004	,000	,629	,119	,928
	N	181	181	181	181	181	181	181	181
factor3	Pearson Correlation	-,062	,286**	,212**	1	,351**	,038	,152*	-,071
	Sig. (2-tailed)	,409	,000	,004		,000	,614	,042	,342
	N	181	181	181	181	181	181	181	181
factor4	Pearson Correlation	-,107	,477**	,504**	,351**	1	,103	,164*	,061
	Sig. (2-tailed)	,150	,000	,000	,000		,169	,028	,417
	N	181	181	181	181	181	181	181	181
factor5	Pearson Correlation	,070	-,009	,036	,038	,103	1	,160*	,222**
	Sig. (2-tailed)	,349	,904	,629	,614	,169		,031	,003
	N	181	181	181	181	181	181	181	181
factor6	Pearson Correlation	-,010	,103	,116	,152*	,164*	,160*	1	,151*
	Sig. (2-tailed)	,898	,166	,119	,042	,028	,031		,043
	N	181	181	181	181	181	181	181	181
factor7	Pearson Correlation	-,014	,004	-,007	-,071	,061	,222**	,151*	1
	Sig. (2-tailed)	,856	,960	,928	,342	,417	,003	,043	
	N	181	181	181	181	181	181	181	181

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table 4. 10: Correlation Analysis between MAS with Factors

		Correlations							
		Factor1	factor2	factor3	factor4	factor5	factor6	factor7	MSC
Factor1	Pearson Correlation	1	,626**	,286**	,477**	-,009	,103	,004	-,045
	Sig. (2-tailed)		,000	,000	,000	,904	,166	,960	,549
	N	181	181	181	181	181	181	181	181
factor2	Pearson Correlation	,626**	1	,212**	,504**	,036	,116	-,007	-,089
	Sig. (2-tailed)	,000		,004	,000	,629	,119	,928	,232
	N	181	181	181	181	181	181	181	181
factor3	Pearson Correlation	,286**	,212**	1	,351**	,038	,152*	-,071	,063
	Sig. (2-tailed)	,000	,004		,000	,614	,042	,342	,398
	N	181	181	181	181	181	181	181	181
factor4	Pearson Correlation	,477**	,504**	,351**	1	,103	,164*	,061	-,328**
	Sig. (2-tailed)	,000	,000	,000		,169	,028	,417	,000
	N	181	181	181	181	181	181	181	181
factor5	Pearson Correlation	-,009	,036	,038	,103	1	,160*	,222**	-,031
	Sig. (2-tailed)	,904	,629	,614	,169		,031	,003	,675
	N	181	181	181	181	181	181	181	181
factor6	Pearson Correlation	,103	,116	,152*	,164*	,160*	1	,151*	-,146*
	Sig. (2-tailed)	,166	,119	,042	,028	,031		,043	,050
	N	181	181	181	181	181	181	181	181
factor7	Pearson Correlation	,004	-,007	-,071	,061	,222**	,151*	1	-,068
	Sig. (2-tailed)	,960	,928	,342	,417	,003	,043		,365
	N	181	181	181	181	181	181	181	181
MSC	Pearson Correlation	-,045	-,089	,063	-,328**	-,031	-,146*	-,068	1
	Sig. (2-tailed)	,549	,232	,398	,000	,675	,050	,365	
	N	181	181	181	181	181	181	181	181

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table 4. 11: Correlation Analysis between UAI with Factors

Correlations									
		Factor1	factor2	factor3	factor4	factor5	factor6	factor7	UA
Factor1	Pearson Correlation	1	,626**	,286**	,477**	-,009	,103	,004	,049
	Sig. (2-tailed)		,000	,000	,000	,904	,166	,960	,511
	N	181	181	181	181	181	181	181	181
factor2	Pearson Correlation	,626**	1	,212**	,504**	,036	,116	-,007	,177*
	Sig. (2-tailed)	,000		,004	,000	,629	,119	,928	,017
	N	181	181	181	181	181	181	181	181
factor3	Pearson Correlation	,286**	,212**	1	,351**	,038	,152*	-,071	,092
	Sig. (2-tailed)	,000	,004		,000	,614	,042	,342	,217
	N	181	181	181	181	181	181	181	181
factor4	Pearson Correlation	,477**	,504**	,351**	1	,103	,164*	,061	-,162*
	Sig. (2-tailed)	,000	,000	,000		,169	,028	,417	,029
	N	181	181	181	181	181	181	181	181
factor5	Pearson Correlation	-,009	,036	,038	,103	1	,160*	,222**	-,091
	Sig. (2-tailed)	,904	,629	,614	,169		,031	,003	,222
	N	181	181	181	181	181	181	181	181
factor6	Pearson Correlation	,103	,116	,152*	,164*	,160*	1	,151*	-,059
	Sig. (2-tailed)	,166	,119	,042	,028	,031		,043	,431
	N	181	181	181	181	181	181	181	181
factor7	Pearson Correlation	,004	-,007	-,071	,061	,222**	,151*	1	-,011
	Sig. (2-tailed)	,960	,928	,342	,417	,003	,043		,885
	N	181	181	181	181	181	181	181	181
UA	Pearson Correlation	,049	,177*	,092	-,162*	-,091	-,059	-,011	1
	Sig. (2-tailed)	,511	,017	,217	,029	,222	,431	,885	
	N	181	181	181	181	181	181	181	181
**. Correlation is significant at the 0.01 level (2-tailed).									
* Correlation is significant at the 0.05 level (2-tailed).									

Table 4. 12: Correlation Analysis between LTO and Factors

Correlations									
		Factor1	factor2	factor3	factor4	factor5	factor6	factor7	LTO
Factor1	Pearson Correlation	1	,626**	,286**	,477**	-,009	,103	,004	-,089
	Sig. (2-tailed)		,000	,000	,000	,904	,166	,960	,236
	N	181	181	181	181	181	181	181	181
factor2	Pearson Correlation	,626**	1	,212**	,504**	,036	,116	-,007	-,168*
	Sig. (2-tailed)	,000		,004	,000	,629	,119	,928	,024
	N	181	181	181	181	181	181	181	181
factor3	Pearson Correlation	,286**	,212**	1	,351**	,038	,152*	-,071	,022
	Sig. (2-tailed)	,000	,004		,000	,614	,042	,342	,765
	N	181	181	181	181	181	181	181	181
factor4	Pearson Correlation	,477**	,504**	,351**	1	,103	,164*	,061	-,307**
	Sig. (2-tailed)	,000	,000	,000		,169	,028	,417	,000
	N	181	181	181	181	181	181	181	181
factor5	Pearson Correlation	-,009	,036	,038	,103	1	,160*	,222**	,001
	Sig. (2-tailed)	,904	,629	,614	,169		,031	,003	,985
	N	181	181	181	181	181	181	181	181
factor6	Pearson Correlation	,103	,116	,152*	,164*	,160*	1	,151*	-,107
	Sig. (2-tailed)	,166	,119	,042	,028	,031		,043	,152
	N	181	181	181	181	181	181	181	181
factor7	Pearson Correlation	,004	-,007	-,071	,061	,222**	,151*	1	-,051
	Sig. (2-tailed)	,960	,928	,342	,417	,003	,043		,498
	N	181	181	181	181	181	181	181	181
LTO	Pearson Correlation	-,089	-,168*	,022	-,307**	,001	-,107	-,051	1
	Sig. (2-tailed)	,236	,024	,765	,000	,985	,152	,498	
	N	181	181	181	181	181	181	181	181
**. Correlation is significant at the 0.01 level (2-tailed).									
*. Correlation is significant at the 0.05 level (2-tailed).									

4.6 FINDINGS OUT OF REGRESSION ANALYSIS

Correlation Analysis was followed by the Regression Analysis, in order to uncover interactions between factors and Hofstede's cultural dimensions.

Table 4. 13: Regression Analysis between Factor 1 and Cultural Dimensions

ANOVA ^a									
Model		Sum of Squares	df	Mean Square	F	Sig.			
1	Regression	2,521	2	1,260	40111,000	,004 ^b			
	Residual	,000	1	,000					
	Total	2,521	3						
a. Dependent Variable: Factor1									
b. Predictors: (Constant), LTO, INDV									
Coefficients ^a									
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	3,753	,031		121,442	,005			
	INDV	,008	,000	,120	21,000	,030	,831	,999	,074
	LTO	-,037	,000	-,902	-157,515	,004	-,997	-1,000	-,556
a. Dependent Variable: Factor1									

In the regression analysis of the Factors 2, 3, 4, 5, 6 and 7, cultural dimensions did not have a significant effect on the factors. But, Factor 1 was found directly in proportion to IDV and, in inversely proportion to LTO.

5. RESULTS & DISCUSSIONS

By interpreting all the findings, which are listed in Chapter 4, following results have been achieved.

5.1 RESULTS OF ANALYSIS WITH DEMOGRAPHICS

5.1.1 Results of analysis with ‘*Nationality*’ variable

In consideration of findings by the ANOVA-Method, Factor 2 (importance level of social media) showed a significant differentiation between Germany and Turkey. This means, social media is relatively more important for the Turkish community, by contrast of German community. Similar to that, Factor 4 (intention of sharing knowledge via social media) showed a significant differentiation between Japan and Brazil as well as Japan and Turkey. This means, Brazilian and Turkish communities are more tend to share the knowledge via social media, in comparison with Japanese community.

5.1.2 Results of analysis with ‘*Gender*’ variable

According to findings out of Independent Samples T-Test Method, ‘Gender’ variable does not have an influence on any of defined factors, which is worth to consider.

5.1.3 Results of analysis with ‘*Title*’ variable

‘Title’ variable has been found in correlation with Factor 5, which is associated with the history of information security and cyber security trainings. In total;

- a. 111 participants declared that, they have attended at least once to a training regarding information/knowledge security. All of the participants, which have attended to this training, belong to title groups Employee/Specialist, Chief/Manager or Senior Manager.

- b. 107 participants declared that, they have attended at least once to a training regarding cyber security. All of the participants, which have attended to this training, belong to title groups Employee/Specialist, Chief/Manager or Senior Manager.
- c. None of the persons, who has Director-Title, have not attended to any of trainings either on information/knowledge security or cyber security. Despite the found correlation, this result would constitute a wrong inference to associate the title with history of mentioned trainings, because there were only 2 persons among the participants, who has a Director-Title, are both from Brazil and, did not attend in any of these trainings.

5.1.4 Results of analysis with ‘*Experience at the Corporation*’ variable

Experience at the Corporation was found out in correlation with Factors 3, 4 and 6.

Factor 3 is associated to trust in social media:

Any of participants, who has an experience less than 1 year or 1-3 years at the corporation, do not agree with the statement, that ‘social media is generally trustful’. First person, who declared that, he agrees with the statement ‘social media is generally trustful’, has an experience at least 3-5 years at the corporation. From this group, who thinks that, information, activities, users on the social media and social media itself are generally trustful, are only the Turkish participants, which are representing the minority of the Turkish community.

Participants, who has an experience either 5-10 years or 10 years and above at the corporation, and agree with the statement ‘social media is generally trustful’, are either from Brazil or from Japan. However, as similar to the prior situation, they are representing minority of their national communities.

In this group, there isn’t any German participant, who agrees with this statement, however, a minority of Germans agreed with statement ‘social media is a trustful

mechanism in terms of information security’ or ‘users on social media platforms are generally trustful’.

In brief, persons who has less experience at the corporation, are tend to not to trust in social media by comparison more experienced participants. Germans are in general more distanced to trust in social media than other three nations.

Factor 4 is associated to intention of sharing the knowledge via social media.

When participants compared to each other, who has an experience less than 1 year or 1-3 years at the corporation, according to tendency to share the knowledge or the information from social media, participants from Brazil, Germany and Turkey are in half shares tend to share knowledge with other team members. There is no Japanese participant among this experience level. German participants in this group, are more tend to transfer the knowledge to their personal space than Brazilian and Turkish participants.

Participants from Germany and Turkey, who has an experience less than 1 year or 1-3 years at the corporation, are more tend to follow colleagues, make comments and forward their posts than Brazilians.

Participants from Turkey, who has an experience less than 1 year or 1-3 years at the corporation, significantly agree with the statement ‘instant messaging applications enable fast and safe knowledge sharing’ in comparison with Brazilians and Germans.

Participants from Brazil, Germany and Turkey, who has an experience either 5-10 years or 10 years and above at the corporation, are more tend to follow colleagues, make comments and forward their posts than Japanese participants.

The majority of the Japanese participants, who has an experience either 5-10 years or 10 years and above at the corporation, are tend to stay distanced to social media for

sharing the knowledge in comparison with other nations. Brazilian, German and Turkish communities are willing to with a rate almost half-and-half, however, number of persons, who tend to share the knowledge is higher in all of three countries.

Participants from all four nations; Brazil, Germany, Japan and Turkey, who has an experience either 5-10 years or 10 years and above at the corporation, agree by a majority with the statement 'instant messaging applications enable fast and safe knowledge sharing', however, Brazilian, German and Turkish communities show that more significant than Japanese community.

In conclusion, Brazilian, German and Turkish participants are tend to follow colleagues, forward their posts and make comments than Japanese participants. Experienced Japanese participants are more distanced to social media in terms of sharing the knowledge in comparison with experienced Brazilian, German and Turkish participants.

Factor 6 is associated to awareness of corporate policy regarding social media use.

Participants from Brazil and Turkey, who has an experience less than 1 year or 1-3 years at the corporation, assume that, their background knowledge about knowledge security is sufficient, while Germans disagree with that.

Participants from Turkey and Germany, who has an experience less than 1 year or 1-3 years at the corporation, agree with the statement 'I know the corporate policy regarding social media use in the workplace', however, Turkish community shows that more significant.

Participants from all four nations; Brazil, Germany, Japan and Turkey, who has an experience either 5-10 years or 10 years and above at the corporation, assume that by a majority, their background knowledge about knowledge security is sufficient, however, German and Turkish communities show that more significant than Brazilian and Japanese communities.

Participants from all four nations; Brazil, Germany, Japan and Turkey, who has an experience either 5-10 years or 10 years and above at the corporation, agree with the statement by a majority, 'I know the corporate policy regarding social media use in the workplace', however, Japanese participants show that less significant (60%) than other nations.

In conclusion less experienced Brazilian and Turkish communities think that their background knowledge is sufficient, however Germans disagree with that. Experienced participants from all four nations have a consensus on their background knowledge and corporate policy regarding social media use.

5.1.5 Results of Analysis with '*Total Work Experience*' Variable

Experience at the Corporation was found out in correlation with Factor 4 and it is associated to intention of sharing the knowledge via social media.

Differently from the case of experience at the corporation, participants who has a total work experience less than 1 year or 1-3 years, are not tend to follow colleagues, make comments and forward their posts, although a very minority of Brazilian participants shows different tendency.

Participants from Brazil and Turkey, who has a total work experience either 5-10 years or 10 years and above, are more tend to follow colleagues, make comments and forward their posts than German and Japanese participants under the same conditions. Turkish community shows that more significant.

Participants from Germany and Turkey, who has a total work experience less than 1 year or 1-3 years, are tend to share the knowledge or the information from social media with other team members than Brazilian participants. There is no Japanese participant among on experience level. Due to very low number of persons, who suits into this

classification, it would constitute wrong inference to generalize. This applies also for knowledge sharing to personal space.

The majority of the Japanese community, who has a total work experience either 5-10 years or 10 years and above, are not tend to share the knowledge or information from social media in comparison with other nations. Number of Germans, who tend to share the knowledge from social media with other team members, are less than the members of opposite group. Brazilian, and Turkish communities are tend to do it, however, Brazilian community shows that more assertive. In this group, participants from Brazil, Germany and Turkey by majority, are tend to share the knowledge to their personal space, however Japanese community was divided into two groups equally.

Participants from all four nations, who has a total work experience either 5-10 years or 10 years and above, agree by a majority with the statement 'instant messaging applications enable fast and safe knowledge sharing', however, Brazilian, German and Turkish communities show that more assertive than Japanese community. Due to low number of persons, who suits into this classification, this comparison has not been implemented for less experienced participants.

In conclusion, participants who are less experienced are tend to not follow colleagues, make comments or forward their posts, while experienced Brazilian and Turkish communities are more tend to do it than German and Japanese communities. Experienced Japanese participants are more distanced to social media in terms of sharing the knowledge.

5.2 RESULTS OF ANALYSIS WITH CULTURAL DIMENSIONS

5.2.1 Results of Analysis with '*Individualism*' Variable

Individualism was found in correlation with Factor 2, which was associated to represent the importance level of social media to the individuals.

Participants from four nations arrived at a consensus by a majority on the statement, 'social media platforms are helpful to get the necessary information from other users or places.' According to Hofstede's country scores, Brazil, Japan and Turkey were classified as collectivistic countries, while Germany was classified as individualistic. In that case, all participants agree with that, social media is in some way important, as independent from classification by individualism.

Participants from Brazil, Japan and Turkey agree with that, comments of their friends on social media, constitute referential values to them, however German community disagree with this proposition by majority. At that point, results are widely parallel to the Hofstede's country scores. Participants from Germany, which was classified as an individualistic country, with its score of 67, do not take opinions of friends serious as much as Brazilian, Japanese and Turkish participants do. Although, Japan was classified as a collectivistic country with the second highest score (46) on this dimension among four countries, the result was corroborated through number of persons, who disagree with this proposition. On the other hand, Turkey (37) and Brazil (38) have very close scores on this dimension. It is truly supported also by the answers of Turkish community, where the majority agree with it, in accordance with a collectivistic country. Yet, in Brazil, number of persons in the community, who disagree with the proposition, is too close to ones, who agree, in contrast of collectivistic classification.

Japanese and Turkish communities think that social media is one of the major ways to share the knowledge or to exchange the information with other people, while German

participants do not think same way by a majority. Since both countries are classified as collectivistic, it is understandable to expect showing a tendency to share the knowledge or exchange the information with other people. In consideration with individualistic characteristics of German community, this result is also not surprising. The only result, which does not correlate to country classification, belongs to Brazil. Brazilian community was divided into two groups in half shares at this question. So that it is not possible to reach a precise inference about Brazil.

In conclusion, importance level of social media is a factor, which is being affected by individualism dimension and, has influences on tendency to share the knowledge via social media.

5.2.2 Results of Analysis with ‘*Power Distance Index*’ Variable

PDI correlated with Factor 2 (importance level of social media) and Factor 4 (intention of sharing knowledge via social media). In Hofstede’s Culture Compass, Brazil has the highest score (69) on this dimension, which is followed by Turkey (66) and Japan (54).

Factor 2 stands for importance level of social media to the individuals.

As uncovered before, participants from all four nations arrived at a consensus on the proposition, that social media is helpful to get necessary information. Although, participants from Brazil, Germany and Turkey agree with this proposition stronger in comparison with Japanese, a direct connection with PDI on the basis of this results is not apparent. Because, differently from Brazil and Turkey, Germany is specified as a low power distanced country.

We saw that, participants from Brazil, Japan and Turkey agree with that, comments of their friends on social media, constitute referential values to them, while Germans are thinking different about it. It seems like, this finding directly proportionate to PDI

scores of these nations. Because, these three nations are classified as high power distanced, in contrast with Germany (35).

As is discussed above, Japanese and Turkish participants see the social media as one of the major ways to share the knowledge or exchange the information, in contrast with Germans. This shows parallelism with PDI scores of these nations as well.

Factor 4 was defined as intention of sharing the knowledge via social media.

It was found before, especially experienced Brazilian and Turkish participants are more tend to follow colleagues, make comments and forward their posts on social media than German and Japanese participants. Yet, this result can't be directly associated to power distance index, although the results of high power distanced countries Brazil and Turkey affirm such a correlation. Because, the Japanese community, which is considered as a power distanced country with a score of 54, are not tend to do that by a majority. On the other hand, behavior of German participants shows differences depending upon level of experience. Less experienced German participants are more tend to do it than more experienced ones.

Participants from Brazil and Turkey are tend to share the knowledge or exchange the information from social media, than participants from Germany and Japan. This shows also parallelism with the country scores regarding PDI. Countries with a high PDI score are more tend to share the knowledge from social media with other team members. In addition to that, with its score of 54, results of Japanese community do not affirm that. But, Hofstede has emphasized that, Japan is standing in the borderline, because of its average score in this dimension and Japan was specified as not high power distanced as much as other Asian cultures.

Neither tendency to share the knowledge to the personal information space nor sharing the personal experience about social media with other team members, show a logical and relatable correlation with PDI. Since all the participants from four nations agree

by a majority with the statement ‘instant messaging enable safe and fast knowledge sharing’, it is also not possible to look for a relationship with PDI.

In sum, importance level of social media and intention of sharing the knowledge via social media are factors, which are being affected by the power distance dimension and has influences on tendency to share the knowledge via social media.

5.2.3. Results of Analysis with ‘Masculinity’ Variable

Masculinity was found negatively in correlation with Factors 4 and 6, which are intention of sharing the knowledge via social media and awareness of corporate policy regarding social media use.

Inferences out of analysis with Factor 4:

According to results, as discussed before, especially experienced Brazilian and Turkish participants are more tend to follow colleagues, make comments and forward their posts on social media than German and Japanese participants. This shows parallelism with country scores regarding Masculinity. In that case, nations with a low masculinity score are more tend to interact with colleagues on social media than high masculinity communities such as German and Japanese.

Participants from Brazil and Turkey are more tend to share the knowledge or exchange the information from social media, in comparison with participants from Germany and Japan. This is in proportion to MAS. Nations with a low masculinity score, are more tend to share the knowledge or exchange the information from social media with other team members, than communities with higher masculinity e.g. German and Japanese.

Neither transferring the knowledge to the personal information space, nor sharing the personal experience about social media with other team members, show a logical and relatable correlation with MAS dimension.

Since all the participants from four nations, agree by a majority with the statement ‘instant messaging enable safe and fast knowledge sharing’, it is also not possible to establish a relationship with MAS dimension, on the basis of this proposition.

Inferences out of analysis with Factor 6:

Experienced participants from all four nations; Brazil, Germany, Japan and Turkey, assume that by a majority, their background knowledge about knowledge security is sufficient, however, Turkish community with the lowest MAS (45) score shows that more assertive than any other community. In addition to that, it is not significant to see such a strong dominance in another ‘Feminine’ classified country Brazil (49). On the other hand, very masculine considered Japanese community (95) also agree with this proposition by a majority, as well as the middle masculine considered Germany (66). Therefore, it would not be so true to relate this proposition with MAS.

Experienced participants from all four nations; Brazil, Germany, Japan and Turkey, agree with the statement by a majority, ‘I know the corporate policy regarding social media use in the workplace’, however, the Japanese community with the highest score on MAS shows that less significant than other nations.

In conclusion, in consideration of this results, intention of sharing the knowledge via social media is a factor, which is inverse proportioned to masculinity dimension and, has influences on tendency to share the knowledge via social media. In addition to that, awareness of corporate policy is a factor which is affected a little by masculinity dimension and does not have a precise influence on tendency to share knowledge via social media.

5.2.4 Results of Analysis with ‘*Uncertainty Avoidance*’ Variable

Uncertainty Avoidance was found in correlation with Factor 2 and in negative correlation with Factor 4, which are associated respectively to the importance of social media and to intention of sharing the knowledge via social media.

Inferences out of analysis with Factor 2:

Participants from all four nations arrived at a consensus on the proposition, that social media is helpful to get necessary information. Since all nations are classified as uncertainty avoidant, it shows also parallelism with country scores in this dimension.

It was found that, participants from Brazil, Japan and Turkey agree with that, comments of their friends on social media, constitute referential values to them, while Germans are thinking different about it. Since Germany has the lowest score among four countries, this shows parallelism also with the scores; meaning, communities with higher UAI score, are more tend to agree with this proposition.

Japanese and Turkish participants see the social media as one of the major ways to share the knowledge or to exchange the information, in contrast with Germans, although Germany has a UAI score of 65. This shows parallelism with UAI scores as well. Japan has the highest score (92) in this dimension, which is followed by Turkey (85), while Germany has the lowest score among four countries.

Inferences out of analysis with Factor 4:

It was found before, especially experienced Brazilian and Turkish participants are more tend to follow colleagues, make comments and forward their posts on social media than German and Japanese participants. However, no significant relation was found with UAI on the basis of this proposition.

Participants from Brazil and Turkey are more tend to share the knowledge or exchange the information from social media with other team members, in comparison with

participants from Germany and Japan. Thus, no significant relation was found with UAI.

Participants from Brazilian and Germany, are tend to share the knowledge to their personal space, however Japanese and Turkish communities are thinking opposite. This shows also parallelism with the UAI scores. Participants from countries with a higher UAI score, e.g. Japan and Turkey, are tend to avoid sharing the knowledge to their personal information space by a majority. The reason for that, might be the aim of reducing risks for information security.

Neither sharing the personal experience about social media with other team members nor the agreeing on the statement ‘instant messaging enable safe and fast knowledge sharing’, do not show a logical and relatable correlation with UAI.

Participants from all four nations arrived at a consensus by a majority on the proposition, that they would share the knowledge or the information from social media to other social platforms. Since all four countries are classified as uncertainty avoidant, there might be a relationship between the proposition and this dimension.

In brief, with regard to the results, importance of social media is identified as a factor, which is proportioned with degree of uncertainty avoidance and has influences on tendency to share the knowledge via social media. In addition to that, intention of sharing the knowledge via social media is identified as a factor which is affected by uncertainty avoidance dimension. Participants from countries with a higher UAI score, e.g. Japan and Turkey, are tend to avoid sharing the knowledge to their personal information space by a majority.

5.2.5 Results of Analysis with ‘Long Term Orientation’ Variable

Long Term Orientation was found in negative correlation with both Factors 2 and 4.

Inferences out of analysis with Factor 2:

Japanese community, as the most long-term oriented nation, declared that, they find the social media important, however, they are distanced to the idea sharing the knowledge via social media. Likewise, another long-term oriented nation, German community, find social media less important than the nations with short-term oriented. On the other hand, short-term oriented ones, Brazil and Turkey, care about it more than these two. Therefore, it is possible to make an inference like that, as LTO is increases, importance of social media is decreasing from knowledge sharing point of view.

Inferences out of analysis with Factor 4:

It was found before, especially experienced Brazilian and Turkish participants are more tend to follow colleagues, make comments and forward their posts on social media than German and Japanese participants. This shows parallelism also with LTO scores of this four countries. Participants from countries, which are short term oriented, e.g. Brazil and Turkey, are tend to follow colleagues, make comments and forward their posts on social media. The reason behind it, might be the aim of widening the network.

Participants from Brazil and Turkey are more tend to share the knowledge or exchange the information from social media with other team members, in comparison with participants from Germany and Japan. This shows parallelism also with LTO scores of this four countries. Participants from countries, which are short term oriented, e.g. Brazil and Turkey, are more tend to share the knowledge or exchange the information from social media with other team members. The reason behind it, might be aim of calling attention on current issues.

5.3 RESULTS OF REGRESSION ANALYSIS

Factor 1, which was associated to intended use of social media, was found in directly proportion to IDV and, inversely proportional to LTO. This means two things. First, as individualism increases, the intended use of social media, is becoming diversified and, second, as long-term orientation increases, intended use of social media is becoming narrow. However, these two results constitute discrepancy to each other, because, German community for instance, as the most individualistic one among four, has also the second highest score in LTO dimension. But, since these are two unique dimensions, it is possible to observe such a converse interaction regarding impacts on intended use of social media.

6. CONCLUSION & RECOMMENDATIONS FOR RESEARCH

This study was conducted within R&D employees of a multinational corporation, who are from four different countries. Total number of employees that are working for selected business unit worldwide amounts to 83000 (as of December, 31st 2018). Number of total R&D employees, who are responsible for this business unit, and working only in this mentioned four countries, is estimated to be 5000. This number is representing at the same time the, target population of this study. In total 181 employees participated in the survey. 8 responses from India and other countries, were unfortunately not considered, due to lack of responses.

In consideration of the results, it has been revealed that, social media behaviors of employees from different nations, are affected by the cultural dimensions and, this have impacts on tendency of knowledge sharing via social media. Specifically the countries, which have very low or very high scores in Hofstede's cultural dimensions, show significant characteristics and unique tendencies. This is a proof of how culture strongly is effecting social media behaviors and intention of knowledge sharing.

During the comparisons of four nations on the basis of Hofstede's cultural dimensions, it has been realized that, different nations show divergent tendency to share the knowledge via social media. This can be associated to three factors such as; Importance Level of Social Media, Intention of Sharing Knowledge via Social Media and Awareness of Corporate Policy regarding Social Media Use.

In consequence of the analysis, it was found that, individualism, power distance, uncertainty avoidance and long term orientation have influences on importance level of social media for persons and, it shows differences by the national culture. Collectivistic communities apparently care about the social media more than individualistic communities. Collectivistic countries also believe that, social media is one of the major ways for knowledge sharing, in contrast with individualistic countries e.g. Germany. But, this is not sufficient by alone to associate it with the tendency of

knowledge sharing via social media. There are other inhibitors or interfaced factors related to knowledge sharing, such as in the case of Japan. In that case, power distance might be the interfaced dimension, which can explain the intention of Japanese community. It was also found that, communities with a higher power distance, for instance Brazil and Turkey, care about the social media more than communities with a lower power distance. At that point, I would recommend to the successor studies, to examine that, whether individualism and power distance has an interfaced impact on tendency to share knowledge via social media. In the next dimension, as is seen from the results of analysis with UAI, an inference can be expressed that, as UAI score increases, importance of social media is increasing too. About the relationship between importance of social media and LTO, an inference can be generated like that, as LTO increases, importance of social media is decreasing.

Second factor, intention of sharing the knowledge via social media, was found with power distance in a positive; with masculinity, uncertainty avoidance and long-term orientation in a negative correlation. According to findings, as power distance increases, intention of sharing knowledge via social media is also increasing. However, it differs in some cases, depending upon experience for instance like in Germany. At that point, I would recommend to successor studies to evaluate the impacts of work experience at the corporate on intention of knowledge sharing via social media, from a comparative point of view, based on power distance index. Furthermore, it was seen that, nations with lower masculinity, are more tend to interact with colleagues on social media and to share the knowledge from social media with other team members. In that case, such an inference can be generated that, as MAS decreases, intention of sharing the knowledge via social media is increasing. Similar inverse relationship was found also between uncertainty avoidance and intention of sharing the knowledge via social media. With an example, it was seen that, countries with a higher UAI score, e.g. Japan and Turkey, are tend to avoid transferring the knowledge to their personal information. The reason for that, might be the aim of reducing risks for information security. Measuring the reasons behind it, would be an interesting subject for a research too. At

last, an inverse proportion was ascertained between long-term orientation and intention of sharing the knowledge via social media. As LTO increases, intention of sharing the knowledge via social media is decreasing.

Despite the found correlation between awareness of corporate policy regarding social media use and MAS, it can be explained with a little influence consisted of masculinity, like Turkish community has the highest awareness and lowest score in this dimension. However, Brazil has also similar lower score in this dimension, Brazilian community does not show it as significant as other nations. In that case, such an inference can be generated that, it does not have a precise impact on tendency to share knowledge via social media and, it would be recommended, to do a comparative research with other Latin American nations in order to clarify, whether it is a specific characteristic for Brazil.

On the other hand, as is explained through an example of experience at the corporation in Germany case; demographic indicatives, such as nationality, experience at the corporation and total work experience are also playing an important role on the characteristics of nations regarding intention of knowledge sharing via social media.

REFERENCES

Books

Allee, Verna. (2003). *The Future of Knowledge*. Routledge, 2009. ISBN1136357890, 9781136357893

Ashkenas RN, DeMonaco LJ, Francis SC. (1998). *Harvard Business Review*. 1998 Jan-Feb;76(1):165-70, 172, 174-8.

Boer, Niels-Ingvar. (2005). Knowledge Sharing within Organizations - A situated and relational Perspective. *Erasmus Research Institute of Management (ERIM) RSM Erasmus University / Erasmus School of Economics Erasmus University Rotterdam*. ISBN 90-5892-086-0. p. 27.

Bukowitz, Wendi R. & Williams, Ruth L. (1999). *The Knowledge Management Fieldbook*. Financial Times Prentice Hall, 1999. 0273638823, 9780273638827

Cooper John M. & Hutchinson, D.S. (1997). *Introduction to Politikos*. Plato: Complete Works, Hackett Publishing Co., Inc. ISBN 0-87220-349-2

Jamil, George Leal and four others. 1959- editor. *Handbook of research strategic innovation management for improved competitive advantage*. Hershey: PA. Business Science Reference [2018]. ISBN: 9781522530138 (ebook)

Liebowitz, Jay & Beckman, Thomas J. (2000). *Knowledge Organizations: What Every Manager Should Know*. 1st CRC Press, Inc. Boca Raton, FL, USA ©2000 ISBN: 1574441965

Pagels, Elaine (1995). *The Origin of Satan*. Allen Lane, The Penguin Press. Plato. (429-347 B.C.). p. 167. *Meno*. Dover Thrift Editions. Dover Publications Inc. Mineola New York. 2019, p. vi. ISBN-10: 0486831787

Polanyi, Michael. (1967). *The Tacit Dimension*. With a New Foreword by Amartya Sen. The University of Chicago Press. Chicago and London. ISBN-13: 978-0-226-67298-4 (paper) ISBN-10: 0-226-67298-0 (paper)

The Oxford English Dictionary, Second Edition, Volume V, Dvandva-Folis

Periodicals

- Ahmad, A. & Khan, H. (2008). The Importance of Knowledge Management Practices in Overcoming the Global Software Engineering Challenges in Requirements Understanding. p. 18.
- Ahmed, Saeema. Blessing, Luciënne. Wallace, Ken. (1999). The Relationships Between Data, Information and Knowledge Based on a Preliminary Study of Engineering Designers. *ASME Design Theory and Methodology*. September 12th-15Th, 1999 Las Vegas, Nevada
- Amin, Mahgol & Kubo, Tomomi. (2014). Kanban Implementation From a Change Management Perspective: A Case Study of Volvo IT. p. 11-12.
- Alexander, P.A. & Judy, P.E. (1988). The interaction of domain specific and strategic knowledge in academic performance. *Review of Educational Research*, 58,375-405.
- Annell, Johan & Wu, Chao. (2013). Knowledge Management in Global Teams A Case Study at Volvo IT in Sweden and China. p. 7.
- Argote, Linda & Ingram, Paul. (2000). Knowledge Transfer: A Basis for Competitive Advantage in Firms. *Vol. 82, No. 1, May*, p. 150–169
- Azlina, Noor. Pangil, Fazinuah. Zin, L. Mohd. Zila, Razak. (2014). Theories of Knowledge Sharing Behavior in Business Strategy. *Conference Paper in Procedia Economics and Finance · September 2014*. p. 188-190.
- Backhuisen, Nicolette. Knowledge Sharing using Social Media in the Workplace. A chance to expand the organizations memory, utilize weak ties, and share tacit information? p. 3.
- Brachman, R. J. & Hector L. J. (2004). Knowledge Representation and Reasoning. *AT&T Labs – Research Florham Park, New Jersey. Department of Computer Science University of Toronto Toronto, Ontario*. p. 7.
- Braune, R. & Foshay, W.R. (1983). Towards a practical model of cognitive /information processing task analysis and schema acquisition for complex problem-solving situations. *Instructional Science*, 12, pgs. 121-145.

- Burgin, Mark. (2016). University of California, Los Angeles/USA. Theory of Knowledge – Structures and Processes. *World Scientific Series in Information Studies Vol.5*. p. 48-49-50
- Cabrera, A., & Cabrera F. Elizabeth (2002). Knowledge-Sharing Dilemmas. *Organization Studies* 23(5):687-710 · September 2002.
- Christiaans, H. (1992). H.C.M., Creativity in Design The Role of Domain Knowledge in Designing. Lemma, Utrecht.
- Ciborra, C.U. Patriota, G. (1998). Groupware and teamwork in R&D: limits to learning and innovation. *R&D Management*. Vol. 28 Iss: 1. p 1–10.
- Corcoran, J. 2006. An Essay on Knowledge and Belief. *The International Journal of Decision Ethics*. II.2, 125-144
- de Jong, de Hoog & Schreiber. (1988). Knowledge acquisition for an integrated project management system. *Information Processing and Management*, 24,681-691.
- Dahri, Ani F. & Yunus, Alwi M. (2018). The Effectiveness of Social Media as Knowledge Management Sharing Tool in Government Agency: A Case Study. *International Journal of Academic Research in Business and Social Sciences* 2017, Vol. 7, No. 12 ISSN: 2222-6990.
- DeNisi, Angelo S. Hitt, Michael A. Jackson, Susan E. (2003). The Knowledge-Based Approach to Sustainable Competitive Advantage.
- Dyer, Jeffrey H. & Nobeoka, Kentaro. (2000). Creating and Managing a High-Performance Knowledge-Sharing Network: The Toyota Case. *Strategic Management Journal* Vol. 21, No. 3, Special Issue: Strategic Networks, p. 345-367.
- Ghani, Syed R. (2009). Knowledge Management: Tools and Techniques. *DESIDOC Journal of Library & Information Technology*, Vol. 29, No. 6, November 2009. p. 33-38
- Geyer, Werner, Dugan, Casey, DiMicco, Joan, Millen, David R, Brownholtz, Beth and Muller, Michael (2008). Use and Reuse of Shared Lists as a Social Content Type. Motivations for Social Networking at Work
- Goldschmidt, G. (1997). Capturing Indeterminism: Representation in the Design Problem Space. *Design Studies*, v18, n4, p. 441- 455.

- Gott S.P. (1989). Apprenticeship instruction for real-world tasks: the coordination of procedures, mental model and strategies. *Review of Research in Education* 15. 97-169.
- Hinchcliffe, Dion. (2016-2017). What We Know About Making Enterprise Social Networks Successful Today
- Hofstede, Geert. (2010). Hofstede, Gert Jan and Michael Minkov, Cultures and Organizations: Software of the Mind. Revised and Expanded 3rd Edition. McGraw-Hill 2010.
- Ichigo K. & Kolhbach F. (2007). The Toyota Way of Knowledge Creation and The Learn Local, Act Global Strategy. *International Journal of Automotive Technology and Management*, 7(2-3), 116-134, doi:10-1504/IJATM.2007.014970
- Ipe, Minu. (2003). Knowledge Sharing in Organizations: A Conceptual Framework. *Human Resource Development Review* 2(4):337-359 · December 2003
- Jones, Gilbert. (2017). Knowledge sharing and technological innovation: The effectiveness of trust, training, and good communication. *Cogent Business & Management* (2017), 4: 1387958
- Kandadi, Kondal R. (2006). Knowledge Management.
- Kochlbacher, Florian (2008). Tappin Tacit Local Knowledge in Emerging Markets – The Toyota Way.
- Kogut, Bruce & Zander, Udo. (1992). Knowledge of The Firm, Combinative Capabilities, and The Replication of Technology. *Organization Science*. Vol. 3, No. 3. August 1992
- Kwakye, Eugene-Okyerere & Nor, Khalid Md. (2011). Individual Factors and Knowledge Sharing. p. 68
- Lam, Alice. (2000). Tacit Knowledge, Organizational Learning and Societal Institutions: An Integrated Framework
- Lewicki, Pawel. Czyzewska, Maria & Hoffman, Hunter (1987). Unconscious Acquisition of Complex Procedural Knowledge
- Makore, Stanford. (2015). The Role of Knowledge Management in Organizational Performance. p. 27.

- Mäki, Anu-Riikka. (2008). The Barriers of Knowledge Sharing in Multicultural Organization.
- Messick, S. (1984). The psychology of educational measurement. *Journal of Educational Measurement*. 21, 215-237.
- Mutuku, Caroline. (2017). Advantages and Disadvantages of Using Social Networks in Business. Essay. 7 pages.
- Nonaka, Ikujiro & Takeuchi, Hirotaka. (1995). How Japanese Companies Create the Dynamics of Innovation. Oxford University Press Inc. ISBN-0-19-509269-4
- Nonaka, I. Toyama, R. & Konno, N. (2000). SECI, Ba and Leadership: A Unified Model of Dynamic Knowledge Creation. Long Range Planning. *International Journal of Strategic Management*, 33(1), 5-34.
- Noor, D. Ammar. Hashim, H. Salah, Norashikin, Ali (2012). Factors Influencing Knowledge Sharing in Organizations: A Literature Review. *International Journal of Science and Research (IJSR) ISSN (Online): 2319-7064 Impact Factor (2012): 3.358*. p. 1314-1319
- Posner, M.I. & McLeod P. (1982). Information processing models, in search of elementary operations. *Annual Review of Psychology*, 333 pgs. 477-514.
- Porter, E. Stanley. Yoon, David. (2016). Paul and Gnosis. *BRILL*. p. 9. ISBN 978-90-04-31669-0.
- Razmerita, Liana. Kierchner Kathrin, Nielsen, Pia. (2016). What Factors Influence Knowledge Sharing in Organizations: A Social Dilemma Perspective of Social Media Communication. In: *Journal of Knowledge Management*, Vol. 20, No. 6, 2016.
- Riesenberger, J.R. (1998). Executive Insights: Knowledge – the Source of Sustainable Competitive Advantage. *Journal of International Marketing*, 6(3), 94-107.
- Saretsalo, Mariel. (2015). Factors Influencing Organizational Knowledge Management- Knowledge transfer in two local finance companies.
- Shurbi, S. (2016). Difference Between Information and Knowledge. Key Differences. <https://keydifferences.com/difference-between-information-and-knowledge.html>

- Smith, Elizabeth A. (2001). The role of tacit and explicit knowledge in the workplace. *Journal of Knowledge Management* Volume 5 Number 4 2001. p. 311-321
- Snowden, David J. (2002). Complex Acts of knowing: Paradox and Descriptive Self Awareness
- Stadler, M.A.(1989). On Learning Complex Procedural Knowledge. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, Vol.15, No.6. pgs. 1061-1069.
- Stewart, T. (1997) *Intellectual Capital: The New Wealth Of Organizations*, Nicholas Brealey Publishing, Business Digest, New York
- Sternberg, Robert J. (2005). *The Theory of Successful Intelligence*. p. 193
- Ton de Jong, University of Twente & Monica G.M. Ferguson-Hessler, Eindhoven University of Technology. Types and Qualities of Knowledge. *Educational Psychologist*, 31(2) 105-113, (1996), Lawrence Erlbaum Associates, Inc.
- Treem, J.W. & Leonardi, P.M. (2012). Social Media Use in Organizations: Exploring the Affordances of Visibility, Editability, Persistence, and Association, *Communication Yearbook*, 36, 143-189.
- Tsui, Lily. (2006). A Handbook on Knowledge Sharing: Strategies and Recommendations For Research, Policy Makers and Service Providers.
- Wijetunge, Pradeepa (2002). The Information Literacy model developed in Sri Lanka to underpin changing education paradigms of Sri Lanka.
- Villoro, Luis. (1992-1996). Belief, Personal, and Propositional Knowledge. Translated by David Sosa and Douglas McDermid. *Siglo XXI, S.A.de C.V., Mexico Editores*, p. 200.

Other sources

Brandel, Mary. (2008). The new employee connection: Social networking behind the firewall. Computerworld IDG Communications, Inc.
<https://www.computerworld.com/article/2551401/the-new-employee-connection--social-networking-behind-the-firewall> [accessed 9 April 2019].

Cambridge Dictionary. <https://dictionary.cambridge.org/dictionary/learner-english/knowledge> [accessed 8 February 2019].

Garfield, Stan. (2016). 10 Types of Knowledge Management Strategies.
<https://medium.com/@stangarfield/10-types-of-knowledge-management-strategies-f947f28599a7> [accessed March 25].

Gemma, Will. (2014). The 6 Types of Knowledge: From A Priori to Procedural. *Udemy Academy*. <https://blog.udemy.com/types-of-knowledge/> [accessed 15 March 2019].

Hofstede Insights. (2019). Country Compass. Mikonkatu, Helsinki, Finland
<https://www.hofstede-insights.com/country-comparison/brazil,germany,japan,turkey/> <https://www.hofstede-insights.com/models/national-culture/> [accessed 3 March 2019].

Jacobson, Madeline. (2018). Knowledge Base vs. Knowledge Sharing Platform: What's the Difference. *Bloomfire Inc.* <https://bloomfire.com/blog/dt-knowledge-base-vs-knowledge-sharing-platform/> [accessed 9 March 2019].

Johnston, Shwan. (2013). Enterprise Social Networks by Microsoft. Business Productivity. <https://www.businessproductivity.com/enterprise-social-networks-by-microsoft/> [accessed 20 April 2019].

Knowledge Management Institute-KMI, South Africa,
<http://www.kminstitute.co.za/what-is-knowledge> [accessed 5 January 2019].

Lurie, Ian. (2012). Information is free, knowledge is not
<https://www.portent.com/blog/random/information-is-free-knowledge-is-not> [accessed 13 February 2019].

Online Business Dictionary.
<http://www.businessdictionary.com/definition/explicit-knowledge> [accessed 29 January 2019].

- Online Encyclopedia Britannica. <https://www.britannica.com/topic/a-posteriori-knowledge> [accessed 5 February 2019].
- Online Etymology Dictionary. Douglas Harper. <https://www.etymonline.com/word/knowledge> [accessed 15 January 2019].
- Overby, Christine. (2016). The Next Wave Of Utility For Enterprise Social Networks. <https://postshift.com/next-wave-for-esn/> [accessed 30 March 2019].
- Petersen, Lainie. Reviewed by Jayne Thompson, LLB, LLM; Role of Social Media in Organizations. <https://smallbusiness.chron.com/role-social-media-organizations-30678> [accessed 24 March 2019].
- Singh, Robin. (2011). Role of Social Media In Knowledge Management. <https://biznology.com/2017/05/role-of-social-media-in-knowledge-management/> [accessed 07 April 2019].
- Smit, Chris. (2012). Power Distance or PDI. Retrieved 14 September 2015. (self-published). <https://culturematters.com/power-distance-index-examples/> [accessed 8 April 2019].
- Smith, Karen. (2017). The Importance of Social Media in Business. Lyfe Marketing <https://www.lyfemarketing.com/blog/importance-social-media-business/> [accessed 17 March 2019].
- Spaced-out Magazine. (2015). Can knowledge come from within? or A brief history of knowledge. <https://spacedoutscientist.com/2015/04/13/a-brief-history-of-knowledge/> [accessed 7 January 2019]
- Spacey, John. (2016, 2017). Simplicable. 13 Types of Knowledge. <https://simplicable.com/new/types-of-knowledge> [accessed 11 February 2019].
- Treser, Michael. (2016). Getting Started With Knowledge Management. eLearning Industry. <https://elearningindustry.com/getting-started-knowledge-management> [accessed 20 February 2019].
- Université Nice Sophia Antipolis. (1985). Declarative vs Procedural Knowledge. http://unt.unice.fr/uoh/learn_teach_FL/affiche_theorie.php?id_concept=90&lang=eng&id_theorie=1&id_categorie=3 [accessed 15 February 2019].
- Youngren, Dana. (2015). 5 Ways To Increase Knowledge Sharing In Your Organization. Bloomfire Inc. <https://bloomfire.com/knowledge-sharing/522359-5-ways-to-encourage-knowledge-sharing-within-your-organization/> [accessed 4 April 2019].

APPENDICIES



APPENDIX A: Survey Questions

Descriptive:

Q1: Nationality

1. American
2. Brazilian
3. Chinese
4. German
5. Indian
6. Japanese
7. Turkish
8. Other

Q2: Gender

1. Female
2. Male
3. Other

Q3: Highest level of education completed

1. Technical/Vocational Academy
2. Bachelor's Degree
3. Master's Degree
4. Ph. D. and above

Q4: Title

1. Employee/Specialist
2. Chief/Manager
3. Senior Manager
4. Director
5. C-Level
6. Member of the Board of Management

Q5: Experience at the Corporation

1. Less than 1 year
2. 1-3 years
3. 3-5 years
4. 5-10 years
5. 10 years and above

Q6: Work Experience in Total

1. Less than 1 year
2. 1-3 years
3. 3-5 years
4. 5-10 years

5. 10 years and above

Q7: I am working at the R&D Department.

1. Yes
2. No

Attitudes towards Social Media

Q1: I use social media platforms to become more sociable.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q2: I use social media platforms to keep in touch with my colleagues.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q3: I use social media platforms to seek help from my colleagues.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q4: I use social media platforms for getting job-related information.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q5: I use social media platforms to share new ideas.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q6: I use social media platforms to create my social identity.

1. Strongly Disagree

2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q7: I use social media platforms to get the information regarding upcoming social events.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q8: I use social media platforms for participating in online group discussions.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q9: I use social media platforms for reading news.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q10: I use social media platforms for sharing pictures.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q11: I use social media platforms to do research.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q12: I use social media platforms to get relief from work stress.

1. Strongly Disagree
2. Disagree
3. Neutral

4. Agree
5. Strongly Agree

Q13: I use social media platforms for watching movies.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q14: I use social media platforms for collaborative learning.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q15: I use social media platforms to look at funny posts.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Importance of Social Media and Trust

Q1: Social media platforms are helpful for me to get necessary information from other users or places.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q2: The comments of my friends in social media platforms are referential values to me.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q3: Social media platforms have been one of the major ways for me to share knowledge and information with other people.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q4: Social media platforms have a trustful technological mechanism in terms of information security and protection.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q5: Users in social media platforms are generally trustful.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q6: The information and activities in social media platforms are generally trustful.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q7: I assume that social network platforms are in general trustworthy.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Tendency of Knowledge Sharing

Q1: I would make comments, forward posts, or follow my colleagues in social networks.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q2: I would share knowledge and information from social networks with my colleagues and other team members.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q3: I would share knowledge and information from social networks to my personal information space.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q4: I would share knowledge and information from social networks to other network platforms.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q5: I would share my personal experiences about social networks with other members.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Social Media Use in the Workplace

Q1: Which of the listed social media platforms do you use in the workplace?

1. Facebook
2. Google+
3. Instagram
4. LinkedIn
5. Messenger
6. Pinterest
7. QQ
8. Ren Ren
9. Skype
10. Skype for Business
11. Snapchat

12. Tumblr
13. Twitter
14. WhatsApp
15. WeChat
16. Weibo
17. Xing
18. Kontakte
19. Yammer/Microsoft 365
20. Youtube
21. Other
22. None

Q2: For which of the listed activities do you use social media platforms in the workplace in terms of business purposes?

1. Communication
2. Data Storing
3. Gathering Information e.g. on New Technologies and Competitors etc.
4. Knowledge Acquisition
5. Networking
6. Promotion
7. Public Relations
8. Other

Q3: For which of the listed activities do you use social media platforms personally in the workplace?

1. Communication
2. Following Breaking News, Financial Parameters, Sports etc.
3. Job Seeking
4. Knowledge Acquisition
5. Networking/Self-Marketing
6. Online Purchasing
7. Personal Blogging
8. Staying in Touch with Friends and Following Their Posts
9. Watching Videos
10. Other

Q4: Which of the listed content do you usually share on social media platforms for both business purposes and personal use?

1. Articles
2. Data Files e.g. MS Excel/Word/PowerPoint, PDF and etc.
3. Links directing to related web-sites
4. Text Messages
5. Pictures

6. Videos
7. Other

Q5: I think that social media use in the workplace plays an important role for an easy and fast knowledge share.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q6: I think that instant messaging applications enable safe and fast knowledge share.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q7: I think that social media use in the workplace poses a risk in terms of information security.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q8: I would rather trustful communication and knowledge sharing tools than public ones, such as internal use only social platforms, instant messaging applications etc.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q9: I think that my background knowledge about knowledge security is sufficient.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q10: I know the corporate policy regarding social media use in the workplace.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree

5. Strongly Agree

Q11: What is the policy of your corporation for use of social media through personal cell-phones?

1. It's is fully allowed.
2. It is partially allowed.
3. It is not allowed, but everybody still uses it.
4. It is strictly forbidden.
5. I don't have an idea.

Q12: I have attended at least once to a training regarding information/knowledge security.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Q13: I have attended at least once to a training regarding cyber security.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

APPENDIX B: Curriculum Vitae

Personal Information

Name: Özgür Barış
Surname: Özer
Date & Place of Birth: 15.12.1990, Kütahya/Turkey
Nationality: Turkish



Employment

02/2015 - present **Mercedes-Benz Turk A.S., Istanbul/Turkey**
R&D, Mercedes-Benz Trucks
Project & Series Management Specialist

Professional Experiences

07/2014 - 02/2015 **Mercedes-Benz Turk A.S.**
Istanbul/Turkey, Long-Term Trainee
R&D, Mercedes-Benz Trucks, Product Management

07/2012 - 08/2012 **ARCELIK A.S. Refrigerator and Compressor Plant**
Eskisehir/Turkey, Intern, Business Administration

07/2011 - 08/2011 **TUSAS Engine Industries Inc. (TEI)**
Eskisehir/Turkey, Intern, Manufacturing Engineering

06/2010 - 09/2010 **Premier Aquatics**
Virginia/USA, Work and Travel, Lifeguard & Pool Operator

E d u c a t i o n

- 09/2016 – 06/2019** **Bahcesehir University, Istanbul/Turkey**
Master of Business Administration
- 08/2009 – 01/2015** **Kocaeli University, Kocaeli/Turkey**
Mechanical Engineering, Bachelor's Degree
- 09/2012 – 08/2013** **Chemnitz University of Technology, Chemnitz/Germany**
Mechanical Engineering, Year Abroad (Erasmus)
- 09/2004 – 06/2008** **Kilicoglu Anatolian High School, Eskisehir/Turkey**
Math & Natural Sciences
- 09/1996 – 06/2004** **Vecihbey Elementary School, Bandirma/Turkey**

L a n g u a g e s

- **Turkish:** Native
- **English:** Advanced in Reading, Writing and Speaking
Certificate of American Culture Association
Abroad Experience in USA (3 Months)
- **German:** Advanced in Reading, Writing and Speaking
Certificate of TU Chemnitz (B1 & B2)
Certificate of Attendance, Goethe Institute Istanbul (B1, B2 & C1)
Abroad Experience in Germany (approx. 2 Years)

Mobile: +90 505 765 15 13
E-mail: ozgurbarisozer@gmail.com



Özgür Barış Özer



Özgür Barış