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# FACTORS AFFECTING THE KNOWLEDGE SHARING BEHAVIOUR

Master's thesis

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I declare I have written the master's thesis independently. All works and major viewpoints of the other authors, data from other sources of literature and elsewhere used for writing this paper have been referenced.

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# ABSTRACT

The organizational competitiveness and ability to cope with the environmental challenges depends on its knowledge competence. Having tech-enabled infrastructure and skilled employees is not enough to gain organizational efficiency rather how effectively these potentials are utilised and enabling the employees to share their knowledge and experiences is important. Knowledge sharing helps to shift the knowledge from individual to organizational level. The knowledge sharing behaviour ensures the sharing of information, data, skills, expertise, experience to other sources which can be people or an organization. The present study attempted to investigate the individual, organizational and technological influence on employee knowledge sharing behaviour in reference to Estonian organizations.

The study has undertaken mixed method that comprises qualitative and quantitative approach of investigations. The survey and focus group interview have been incorporated for collecting the data; the data has been collected from 203 employees working with different sectors in Tallinn. The study has further been analysed through content and regression analysis to give the findings. The findings conclude that individual motivation, Employee perceived organizational support; Organizational Culture and trust in technology have significant influence on knowledge sharing behaviour. The theoretical and managerial implications have been discussed to support the policy makers to ensure knowledge sharing behaviour at workplace.

Keywords: Knowledge sharing behaviour, Organizational culture, Perceived organizational Support and employee motivation.

# INTRODUCTION

Globalization has changed the organization's dynamics in today's global market place. Competitive advantages are no longer derived exclusively from service or quality but also derived from knowledge leverage (Fey & Furu, 2008). Today, the company's competitive advantage is highly knowledge-based. By sharing the knowledge innovative performance can be increased and resource spending can be reduced (Bohn, 2009). The organizational competitiveness and ability to cope with the environmental challenges depends on its knowledge competence. Having tech-enabled infrastructure and skilled employees is not enough to gain organizational efficiency rather how effectively these potentials are utilised and enabling the employees to share their knowledge and experiences is important. Knowledge sharing helps to shift the knowledge from individual to organizational level. The knowledge sharing behaviour ensures the sharing of information, data, skills, expertise, experience to other sources which can be people or an organization. Many organizations have realized that it is not a common practice to share knowledge. Nowadays there has been a tremendous increase in intangible and intellectual capital in organizations. It has been said that knowledge is any organization's intellectual capital. That's why many firms are encouraging their employees to share knowledge, and also several firms have started motivational scheme. It has been said that the transfer of knowledge is intimately linked to employees' intrinsic and extrinsic motivations (Lin H., Effects of extrinsic and intrinsic motivation on employee knowledge sharing intentions, 2007). Knowledge sharing is the process of mutual exchange of tacit and explicit knowledge between employees (Nonaka, The knowledge-creating company, 2007) in order to create new knowledge. Tactic knowledge resides in the mind of employees and individual can acquire that knowledge's in form of experience. Explicit knowledge can be which can be written down as a manual or guide in order to share the information to other team member in the organization, so that others can have the same experience without doing the same work (Newell et al. 2009). "Explicit knowledge sharing requires less effort of an employee to share than tacit knowledge" (Hauet al. 2013). According to Von Krogh et al. (2012), knowledge sharing not only improves tacit and explicit knowledge of employees also it helps to deliver high standards of perfection related to their work under certain conditions, depend upon the need of the hour. Knowledge sharing can be combined together with other knowledge processes including knowledge flow, transfer, learning, distributed cooperation and knowledge creation (Foss, Husted, & Michailova, 2010). "Knowledge sharing involves a set of behaviours that aid the exchange of acquired knowledge" (Chow & Chan, 2008).

In order to transform knowledge from individual knowledge to organizational, knowledge sharing practices are designed (Foss, Husted, & Michailova, 2010) and technological intervention influences the sharing behaviour. Web 2.0 which comprises the social networking sits, wikis, blogs etc. and help people to connect and give them chance to communicate, collaborate and participate in information sharing by adding or editing the piece of information Anderson 2007, Ankolekar et al 2008 and Pachler and Daly, 2009, Rollett et al. 2007, (Paroutis & Saleh, 2009). However, trust in these technological platforms may influence employee intention to share their knowledge. Therefore, it requires understanding the linkage between trust and employee's knowledge sharing behaviour. To be able to effectively share knowledge, organization needs to support the employee motivation, trust and, in particular, create a working environment that allows its members to share their individual knowledge (Bukowitz & Williams 1999: 167). Hence culture and perceived organizational support plays important role in shaping employee knowledge sharing behaviour (Jo, S. J., &Joo, B. K. (Brian)2011; Chang, C. L. hsing, & Lin, T. C. (2015). Several researches have examined the factors that influences the knowledge sharing intentions ( (Seba, Rowley, & Lambert, 2012); (Jolaee, Nor, Khani, & Yusoff, 2014). however, researches focusing to establish link between trust in technological platform and its influence on knowledge sharing behaviour has not been evidenced in the literature.

Estonia is one of most growing country in Europe. Every year various multinational, start- up companies are starting their journey and many companies have opened business centre due to ease of doing business and other geographical, economic reasons. Therefore every year new workforce coming in the market and contributing their knowledge in the form of offered services, however at the same time attrition and quick switchover are also being observed in employee behaviour therefore it's very important to store the new information, data, experience within the organization before they move to other through establishing knowledge management culture. To do this employees' knowledge sharing behaviour must be ensured in organization. Therefore, it's important to understand the individual, organizational and technological factors influencing the knowledge sharing behaviour so as establish knowledge sharing culture and ensuring longevity and sustainability of Estonian Organization. The study is therefore attempting to answer following research questions.

- 1. Does employee motivation give any influence to knowledge sharing behaviour in parlance to Estonian organizations?
- 2. Does perceived organizational support relates to knowledge sharing behaviour with reference to Estonian organizations?
- 3. Does organizational culture have any influence on employees' knowledge sharing behaviour with reference to Estonian organizations?
- 4. Whether trust in technological platform specially the web 2.0 has any influence on employees' knowledge sharing behaviour?

The present study is intended to give contextual contribution with studying the determinants (individual and organizational) of knowledge sharing behaviour in Estonian context and conceptual contribution with studying the linkage between trust in technology and knowledge sharing behaviour.

The thesis has been structured in the following heads, the first part is comprising the background and introduction of the study, whereas second part has undertaken the review of the literature and theoretical foundations and, the third part has given the details on the adopted methodology, the fourth part has given discussion and conclusion. The thesis then extended with the managerial implications along with future scope of investigations.

# **1. LITERATURE REVIEW**

### **1.1. Definition of Key terms:**

The main definition that has been used in this thesis are listed and shortly defined in Table 1. Knowledge sharing means how knowledge is used and utilized among employees. (van den Hooff, Schouten, & Simonovski, What one feels and what one knows: The influence of emotions on attitudes and intentions towards knowledge sharing, 2012). Motivation is divided into two factors where intrinsic means satisfying employee's needs immediately and extrinsic means satisfying employee's needs indirectly. (Calder & Staw, 1975)

#### Knowledge: --

Knowledge is understanding some facts, information, description or skills which is acquire through experience or learning.

#### Tacit Knowledge: -

Tacit knowledge is something, which is difficult to transfer from one person to another person by means of writing down.

#### Explicit Knowledge: -

Explicit knowledge which can be transfer from one person to another by means of communication, awareness, guidance, access of documents

#### **Knowledge Capturing: -**

Knowledge capturing the process of converting the knowledge or experience that resides in the mind of an individual into an explicit representation, whether in print, electronic, or multimedia form.

#### Knowledge Management: -

A discipline that promotes an integrated approach to identifying, capturing, evaluating, retrieving, and sharing all of an enterprise's knowledge assets. As defined by the Gartner Group (Duhon 1998), these assets include databases, documents, policies, procedures, and previously uncaptured expertise and experience of individual workers. Knowledge management efforts

overlap with organizational learning but may be distinguished from that by a greater focus on knowledge as a strategic asset and on encouraging the sharing of knowledge.

#### **Knowledge sharing**

A subset of knowledge management encompassing the exchange of knowledge (information, skills, experiences, or expertise) within and across organizations. Although it can be onedirectional, knowledge sharing in most cases is a two-way or multilateral exchange in which the parties learn from each other. Knowledge sharing is more than mere communication, because much knowledge in organizations is hard to articulate. In development work, some knowledge sharing has a regional aspect.

#### **Perceived Organizational Support:**

Perceive organizational support refers to the employees' perception concerning the extent to which the organization values their contributions and cares about their well being (Eisenberg at al, 1986).

#### **Organizational Culture**

Organizational Culture is defined as a set of belief, values, behaviour patterns and assumptions shared by the members of an organization (Cooke and Rousseau, 1998).

#### **Trust in Technology**

The belief that the specific technology will consistently operate properly (McKnight and Chervany 2002).

## **1.2.** Theoretical Foundations.

#### **1.2.1.** Theory of Reasoned Action and Planned Behavior:

The theory of reasoned action has given by (Hill, Fishbein, & Ajzen, 1977), the theory reveals the understanding that individual are more likely to do something, if they plan or aim to do it then if they do not (Ajzen, 1985). Mostly driven to study the intention determining behavior, however this could not explain the behavior in willful control hence Ajzan has again conceptualized the theory of planned behavior, which influences many researchers studying the people's intention and subsequently their behavior (Ajzan 2015). The theoretical premises include the construct such as attitude, subjective norms and volitional /behavioral control. Attitude refers to the belief a system that has resulted in value being placed on the outcome of the behavior (Ajzan, 2002), attitude being positive and negative depends upon the favorability towards outcome. Subjective norms refer to perceived social pressure to engage or not to engage

in certain behavior, whereas volitional control explains the ability to decide at will to engage in or not. (Ajzan, 1991) and behavioral control is concerned with perceived control of behavior or how easy or difficult is to perform behavior. The present study attempted to investigate the employees attitude, his organizational support culture, perceived support and his behavioral intention to share the knowledge, hence finds the theory of planned behavior as best applied and would therefore take as premises to undertake further literature investigations.



Source: Razak, N. A., Pangil, F., Zin, M. L. M., Yunus, N. A. M., &Asnawi, N. H. (2016). Theories of Knowledge Sharing Behavior in Business Strategy. *Procedia Economics and Finance*. https://doi.org/10.1016/S2212-5671 (16)30163-0

#### **1.2.2.** Theory of social exchange

(Cropanzano & Mitchell, Social exchange theory: An Interdisciplinary review, 2005) asserted that social exchange theory is one of the most influential conceptual paradigms for understanding of workplace behavior. The theory initially defined as an exchange of valuable resources against the benefit. According to SET explains the rational behavior of an individual to gain the rewards out of the offered exchange ( (Razak, Pangil, Zin, Yunus, & Asnawi, 2016). SET has two dimensions in the literature where the first waves which have undertaken the rewards perspective and the second waves have undertaken the social relationship. Balu's contribution is unique because it covers the dimensions of social exchange relationship. This depicts the workplace antecedents that leads to interpersonal connections, referred to as social exchange relationship (Cropanzano R. , Rupp, Mohler, & Schminke, 2001) (Cropanzano & Mitchell, Social exchange theory: An Interdisciplinary review, 2005). The theory says that people interactions are based upon self-interest on perceived benefits. Since the study is attempting to examine the behaviour that may influenced by workplace behaviour hence proposed best application of social exchange theory, as employee would certainly seek benefits it terms of rewards or recognition to share knowledge hence support and culture must ensure the employee benefits.

#### 1.2.3. Knowledge sharing behavior:

Knowledge sharing is a human behaviour, which can take place in all situations of life. However, the focus of this paper is on knowledge sharing at the workplace. Knowledge sharing in the workplace is the exchange of knowledge among individuals, teams, units or organizations (Paulin & Suneson, 2011) (Wasko & Faraj, 2017) investigated that in order to contribute knowledge, individual must think that their contribution will create value in the organizations. Similar work is done by Ma and Chan 2014, Wasko and Faraj 2005, Hung et al. 2011, (Chennamaneni, Teng, & Raja, 2012).Thereby it is one critical part of knowledge management. The below table shows various definition in regards to knowledge sharing mentioned in the different literature.

Author	Year	Defination
Bartol & Sirvasta	2002	"Knowledge sharing is the
		process of transferrring
		explicit knowledge to other
		members of the orgnizations"
Ipe, M (2003) Knolwedge	2003	" knowledge shairng is a
sharing in organization		process where indivisual turns
		to be understood, absorbed
		and used by others"
Van Den Hoff and De Ridder	2004	"Knowledge shairng is a
		process where mutually
		exchange their explicit and
		tacit knowledge to create new
		Knowledge"(p.119).
Singh Sandhu et al	2011	"The term knowledge sharing
		is usually used to describe a
		unidirectional way of
		exchanging knowledge, as for
		instance, one colleague
		explains a procedure to

Table 1.1 Definition of Knowledge sharing:-

		another colleague. Anyway,	
		knowledge sharing can also	
		take place in a bi- or even	
		multidirectional way, for	
		instance in team meetings.	
		However, it has to be	
		distinguished between	
		donating knowledge and	
		receiving knowledge when	
		talking about the construct of	
		knowledge sharing"- (Sandhu,	
		Jain, & Ahmad, 2011)	
Haas and Hansen	2007	"Knowledge sharing is a practice which create new knowledge economy"- Haas and Hansen (2007).	
Connelly	2000	"knowledge sharing is exchange of knowledge that help others with knowledge"	

According to (De Vries, Van Den Hooff, & De Ridder, 2006), every knowledge sharing create supply of new knowledge and demand for new knowledge (Wabwezi, 2011,p.14), they also argued that in this process of creation of new knowledge, there will be many obstacle which is influence by various factors within organizations culture or out of organization. Ultimately, knowledge sharing is seen as a determinant of individual and organizational performance (Henttonen et al. 2016; Kang et al. 2008; Law and Ngai 2008), job satisfaction (Fischer and Döring 2018; Kianto et al. 2016) and innovative capability (Curado et al. 2017; Nieves et al. 2016). Additionally, some authors distinguish between knowledge sharing and knowledge transfer: If knowledge is already codified and only consumed, knowledge is not shared but transferred ( (Tangaraja, Mohd Rasdi, Abu Samah, & Ismail, 2016); Kang et al. 2008: 1549). Knowledge sharing is influenced by multiple determinants.

According to (Taminiau, Smit, & de Lange, 2009), Knowledge sharing can be done formal way (resource, service, activity) or informal way (meeting, friendly discussion). But the main aim of knowledge sharing is to enhance organization efficiency. Knowledge should be obtained by all employees' minimum effort.

Jialin Yi 2009 defined Knowledge sharing behavior as a set of individual behaviors involving sharing one's work-related knowledge and expertise with other members within one's organization, which can contribute to the ultimate effectiveness of the organization. The author reveals the five dimensions that entail the knowledge sharing behavior at workplace i.e. written contribution, organizational communication, personal interaction and communities of practice dimensions. Jialin Yi, 2009 asserted that written contributions illustrates the behavior of employees' sharing ideas, expertise and information through written documentation rather than dialogues. (Bartol & Srivastava, 2002) Reveals that organizational meetings and seminar often gives chance to share employees' expertise and experience which gives them reward and recognition, hence employee brain storming sessions, meeting and seminar participations often supports the knowledge sharing behavior. Personal interaction on other hand gives deep support to behavior as informal social interaction explores the opportunity to take tacit knowledge into surface. The employee feels motivated and he perceives knowledge sharing as self -determined note to his behavior (Kaser and Miles, 2001; Jialin Yi 2009). Jialin Yi (2009) asserted that communities of practice represent the voluntary group of employee communicating around the topic of common interest in non-routine of personality. The current thesis adopts the above dimensions.

#### 1.2.4. Individual Factors

#### **1.2.4.1.** Employees' Motivation and knowledge sharing:

Motivation is defined as motive behind action hence plays important role in determining the behavior. The literature has given two important dimensions to study the motivation intrinsic and extrinsic motivation and widely discussed the concept of motivation (Deci and Ryan 2000). The present review is focusing the employee motivations in regards to knowledge sharing behavior. The literature has evidences that motivation is primary determinant for knowledge transfer (Frey & Osterloh, 2002). The extrinsic dimensions that relates to knowledge sharing behavior are expected organizational rewards as employee seek the exchange value of the knowledge transfer in terms of rewards or benefits (Fray B. and Osterloh M., 2000; (Bandura, 2012); (Lin H., Knowledge sharing and firm innovation capability: An empirical study, 2007). Perceived

Reciprocal benefits are also evidenced with the individual intention to knowledge sharing behavior (Moghavvemi S., Sharabati, Paramanathan, & Rahin, 2017). Knowledge self efficacy depicts the individual self determination to perform certain action and dealing with the environmental challenges E.L Deci 1975; Bollinger, A. S., & Smith, R. D. 2001; Bandua, 2012). Literature has also found evidenced that enjoyment received in helping others supports the employee knowledge sharing behaviour (Wasko & Faraj, 2017); (Lin H., Effects of extrinsic and intrinsic motivation on employee knowledge sharing intentions, 2007); (Paroutis & Saleh, 2009); (Chennamaneni, Teng, & Raja, 2012);Jean, Kim et al. 2011; Ma and Chan 2014). Attitudes toward knowledge sharing (Bello, O. W., & Oyekunle, R. A., 2014) and Knowledge sharing intentions (Reychav, I., & Weisberg, J. 2010) affects the employee knowledge sharing behaviour. The study could not find the evidence in literature where the present conceptual investigation in made in regards to Estonian working environment.

Hypothesis 1: Employee motivation factors i.e Expected organizational rewards, Reciprocal benefits, Knowledge self-efficacy, Enjoyment in helping others, Attitudes toward knowledge sharing and Knowledge sharing intentions significantly influence the knowledge sharing behavior.

#### 1.2.4.2. Employee experience and Knowledge sharing Behavior:

Employee educational background has important factor that demonstrate the knowledge competence of the individual and helps him to execute the knowledge sharing capabilities. However how long the employee has spent into their respective profession do play important role in making the knowledge contribution in the knowledge management practices in organization. Literature has evidenced the link between individual demographic variables such as age, gender, education and knowledge sharing intention (Lawal, F. M., Oriogu, C. D., &Ogbuiyi, S. U. 2017). However there is dearth of research investigating the link between employment experiences and knowledge sharing behavior.

Hypothesis 2: As the Employees' employment experience significantly contributes to knowledge sharing behavior at work place.

#### 1.2.5. Organizational Factors

#### **1.2.5.1.** Organizational Cultural influence on knowledge sharing behavior;

Organizational culture defines the shared values, artifacts and underlying assumption carried over within the organization (Schein, 1996). According to Robbins and Coulter (2012) "Organizational culture is described as the shared values, principles, traditions, and ways of doing things that influence the way organizational members act" (p. 80). By facilitating or restricting the flow of knowledge, culture can have a wide impact on the process of knowledge sharing. According to Levine (2001;18(1):21-32), "an organization that supports the sharing of information and the creation of knowledge among its members and is committed to the inclusion and reconciliation of multiple perspectives is likely to establish effective and efficient processes and improve organizational life" (p. 23). Furthermore, Ahmed, Lim and Loh (2002) asserted that knowledge transfer can be promoted in the organization based on the appropriate cultural norms widely held by the organization; they, however, warn that if the wrong norms exist, regardless of the effort and good intention of individuals trying to promote knowledge, little knowledge transfer is likely to be forthcoming as a result (p. 59). Even with the existence of the aforementioned culture scenario, employees will easily learn what values and behaviors are acceptable regardless of what is communicated officially by the company (2005, p. 291). Therefore, it is important for companies to establish a culture that has high sense of commitment to knowledge sharing. A fair system of recognition and incentives ensures that each employee contributes to the same goal. Tang et al 2000 gave four dimensions of healthy organizational culture i.e. family orientation/loyalty, open communication, team approach, knowledge of managers. Literature has evidenced the linkage of organizational culture with knowledge sharing behavior (Al-Alawi, Al-Marzooqi, & Mohammed, 2007) however the Estonian context is not being undertaken in this regards. The present study therefore presents the contextual gap with investigating the influence of organizational cultural factors on employees' knowledge sharing behaviour.

Hypothesis 3; Organizational Culture factors i.e family orientation/loyalty, open communication, team approach and knowledge of manager influences the employees' knowledge sharing behaviour.

#### **1.2.6.** Perceived Organizational Support and knowledge sharing behavior

Perceived organizational support (POS) is defined as the employees' "beliefs concerning the extent to which the organization values their contribution and cares about their well-being" (Eisenberger et al., 1986). Rhoades and Eisenberg (2002) found that Perceived positive organizational support are significantly related to fair organizational practices, supervisors' support, favourable rewards and job conditions, that eventually resulted into the positive outcomes, hence presenting the important notion that perceived organizational support is important for both employee and employer to gain mutual success. The employees' perceived support received from his organization contributes to his intention to share the knowledge (Swift & Virick, 2013). Though the perceived organizational support has a wide aspect that reflects several employee treatments, but this research focuses on the factors that help employees to execute knowledge sharing behaviour. Such as how well organizations are treating employees and giving them freedom to share their tacit knowledge and surface up with the perceived organizational support influences the employee intention and behaviour to share his/her knowledge in work place.

Hypothesis 4: Perceived organizational Support influences the knowledge sharing behaviour.

#### 1.2.7. Trust in Technological Platform (web 2.0) and Knowledge sharing behavior:

Technology has been recognized as an important enabler for managing knowledge and knowledge sharing in organizations. It is a key element in distributing information within the organization and at the right time providing people with the right access to the right information. It facilitates the flow of information through the design and implementation of systems that support communication, collaboration and the distribution of knowledge (Montana B, 2005). According to Lin (2007), technology plays a crucial transformational role in changing the organizational culture to the process of knowledge sharing. Many organizations increase knowledge sharing behaviour among the employees by introduces technology as management support in facilitate human activity in the organizations. (Yassin, Salim, & Ashaari, 2014).Through technology, the employees can share their knowledge across distance barriers (Hendriks, 2002) hence accelerate the flow of information by developing the 19-communication channel in the organizations such as internet-based discussion groups or electronic meeting

software. Besides, technology helps in changing the social interaction between groups in the organizations (Yates et al., 1999). It allows more people especially shy or very busy people to easily express their ideas and willing to share their knowledge rather than face to face interaction by participating in online discussion forum for instance. (Connelly and Kelloway, 2003). Technology also use to preserve and store information over time and brings new form of access for new knowledge to be transferred among the employees (Saint-Onge and Wallace, 2003) by using tools such as electronic document management and document information systems. In such environment the role of trust is very important as trust is critical factor that give strong influence on the behavioural intentions. Trust is defined as Individual's willingness to depend on another party because of the characteristics of other party. (Rousseau et al. 1998). The study examining the virtual team effectiveness found trust as significant factor to ensure knowledge sharing and team collaboration (Alsharo, M., Gregg, D., & Ramirez, R. 2017). Trust in specific technology may give influence to knowledge sharing intentions as they expect threat to share as perceived risk of loosing the information. Web 2.0 which is exclusively postulated as knowledge management technologies and includes wikki's, social media, blogging etc removes the conventional barriers of the knowledge sharing (Paroutis, S., &Saleh, A. Al. 2009). The plethora of literature is available investigating the role of trust in shaping human behaviour specially in regards to knowledge sharing intentions and behaviour, however no evidence has been recorded which examined the linkage between trust in specific technology has any influence on knowledge sharing behaviour.

Hypothesis 5: The trust in technology has string predictability towards knowledge sharing behavior.

#### 1.2.8. Conceptual gap identified and Framework

The review of the literature reveals that there are several studies that have investigated the critical success factors that affect the knowledge sharing behaviour at work place however there is dearth of literature investigating this conceptual linkage in Estonian Context. The literature review also founds that employees trust in adopted technological medium such as web 2.0 has not been undertaken into empirical research investigation hence the present study is intended to cover the above cited contextual and conceptual gap. Figure 2 is reflecting the conceptual framework of study.



# Figure 1: Conceptual Framework Model

# 2. METHODLOGY

This part of the thesis comprises the complete details of the research methodology, procedures, instruments descriptions and limitation of the study. It has arranged in the following sequence.

- Method
- Data Collection method
- Instrument Description
- Sample Design
- Statistical Tools and Techniques
- Limitation of the study

# 2.1. Method:

The study has undertaken the quantitative and qualitative approach. The research design has followed the traditional steps such as problem identification, review of the literature, conceptual gap identifications, survey formalization, sample design, statistical design and then analysis. As the study examines the Knowledge sharing behaviour at work place and revolves around to investigate the several factors influencing its execution hence this has incorporated qualitative and quantitative approach. The descriptive and relational methods are dominant in the empirical investigations. Where as content analysis is being undertaken into analyse the scripts of interviews. The major highlights on the methods are mentioned ahead.

### 2.2. Data Collection Method.

The current research has incorporated survey method for the data collection where structure questionnaire has been undertaken and incorporated upon the employees working in different sectors in Tallinn, Estonia. The questionnaire was personally observed and collected through

self-administered approach. The details on the adopted sources to develop the instrument are being given in further part of the chapter. The initial questionnaire was pretested with sample of size of at-least 50 using students from Tal Tech University by using collaborative participating pre testing method described by Cooper and Schindler (2006:396). The data for main study was collected over a month of time during March and April, 2019. The database such as Google scholars, Ebsco serach premier, and university library database was utilised to obtain the conceptual understanding and performing the literature survey. Apart from the questionnaire a semi-structured interview is used as a data collection method to obtain the meaning of central themes in the live world of the subjects. The main task in interviewing is to understand the meaning of what the interviewees say (Kvale, 1996). Interview was based on the questions. This study tried to obtain interviewees' own views about the questions so that the opinions and biased views of the researcher can be avoided. To do that the interviews were arranged in six different companies with regular employees and managerial level employees. The interviews were arranged face to face and others are via email, all the face to interview was voice recorded and also transcribed into the word format.

# 2.3. Instrument Description:

As the study is attempting to know the influence of individual, organizational and technological factors on knowledge sharing behaviour the study has undertaken KSB as dependent variables and organization culture, perceived organizational support, employee motives, his experience and trust in technology as independent variables. Multidimensional measure based on the Cox et. al(2005:203) and Arnold and Reymonds (2003:79-80) was used to determine the extent to which employees intended to share their knowledge. The questionnaire was constructed based on the findings of extensive literature review. The purpose of the questionnaire was to measure and evaluate the attitude and opinion of the participants on the above conceptual variables. In order to assess the attitude and extent of agreement of the respondents on the given dimensions of the work environment a 5-point Likert scale assessment ranging from 1= Strongly disagree, 2= disagree, 3= neither agree or disagree, 4= agree, 5= strongly agree has been implied. Table 2 is giving the details of the adopted sources and dimensions observed under each conceptual variables which has eventually also observed as conceptual lenses on the semi structured interview.

# Table 2 providing Conceptual variables and observed Dimensions

r		1
Concepts	Dimensions	Source
Knowledge Sharing Behaviour	Written Contribution, Organizational communications, Personal interactions, Communities of practice	Jialin Yi (2009)
Individual Factors		
Employee motivation factor	Expected organizational rewards, Reciprocal benefits, Knowledge self-efficacy, Enjoyment in helping others, Attitudes toward knowledge sharing and Knowledge sharing intentions	Hsiu-Fen Lin 2005
Employment experience	Numbers of years in professional employment	Researcher's self- conceptualization
Organizational Factor	ors	
Perceived Organizational Support	Employers favourability to concern employee well-being in regards to knowledge sharing practices	Robert Eisenberger and Robin Huntington, (1986)
Organizational Culture	Family orientation / Loyalty, Open communication, team approach, knowledge of managers	Tang et al 2000
Technological Facto	ors	
Trust in specific technology (web 2.0)	General Trusting Beliefs in Technology, Trust in Specific Trustees or Technologies, Reliability and usability of specific technology.	Mcknight, D. H., Carter, M., Thatcher, J. B., & Clay, P. F. (2011).

Table 3 is giving the results on the reliability and validity of the instruments. The cronbach 's alpha was used to estimate the reliability of the research constructs. The table below indicates the scores of cronbach's alpha as .95 for entire score. Hence the items analysis indicates that individual item has secured high reliability score however for the individual dimensions statistical value also depicts the good reliability. The instrument has also found valid with observing chi square difference test as the significant statistical value has been observed for all the dimensions. The KMO and Barletts test of Sphercity indicates that KMO & Chi-Square value for all dimensions has also been observed within the acceptable range i.e. .7, hence this reflect the current study has sample adequacy, therefore the size chosen is more appropriate for the study.

Dimensions	No of items	Cronbach's Alpha	KMO values	Chi- square	DOF	Sig.
Knowledge sharing behaviour	20	.702	.701	1493.58	190	0.00
Organizational Culture	08	.801	.717	524.495	28	0.00
Emloyees motivation	12	.809	.767	806.449	66	0.00
Trust in Technology	08	.718	.780	373.519	28	0.00
Percevived organizational Support	06	.701	.669	893.221	15	0.00

Table 3: Reliability and Validity statistics

p<0.05

# 2.4. Sample Design

*Sample Size:* The study has observed the survey based on The Miaoulis and Michener s' (1976) three criteria specified to determine the appropriate sample size. Level of precision, level of confidence and third the degree of variability. Generally acceptable margin of error in educational and social researches is 5% or 0.05 for categorical data, and 3% or 0.03 for continuous data (Krejcie & Morgan, 1970 quoted in Bartlett et al., 2001, p.45) hence level of

precision and level of confidence have been taken as 5%. The degree of variability in the attributes being measured refers to the distribution of attributes in the population. The more heterogeneous a population, the larger the sample size required to obtain a given level of precision. The less variable (more homogeneous) a population, the smaller the sample size (quoted in Israel, 1992, p.2).Daniel WW (1999) sample estimation has been observed to collect the sample size and calculation estimated 197 sample size. The present thesis therefore collected 210 samples where 203 complete surveys was hence representing 96 percent of response rate. n = N\*X / (X + N - 1),

where,

 $X = Z_{\alpha/2}^2 * p^*(1-p) / MOE^2$ ,

and  $Z_{\alpha/2}$  is the critical value of the Normal distribution at  $\alpha/2$  (e.g. for a confidence level of 95%,  $\alpha$  is 0.05 and the critical value is 1.96), MOE is the margin of error, p is the sample proportion, and N is the population size.

### Sample Profile and Sample Type:

All respondent are working in Tallinn and all replies were obtained during Month of March – April. The respondent consisting of majority of male approximately (60%) and female approximately (40%). Among of the respondent all age groups are involved. For example 65.5% of the respondent age was 25-34, where as 24.5% respondent was between 18-24. Approximately 7.3% of the population age was in between 35-44 and only 1.8% respondent was 45-54 age brackets. Only 1% of the respondent age was below 18. In terms of participation 51% of the respondent is working a specialist where as 8.7% of them are working as a manager. Since duration of the employment is any organization plays an important role for knowledge sharing intentions , therefore our sample working experience should be minimum a year. Among the respondent 87.2% of them working in between 1-3 yrs, where as 17.3% of them having 4-7 yrs of experience.

To examine whether or not the sample was typically a participant in Estonian workforce, I verify the age group with labour statistics of Estonia where it's clearly stated that between 25-49 yr most active in labour market and comprise total 88% of the labours force. (Data collected from Statics Estonia 3<sup>rd</sup> quarter 2018).

*Sample Area:* The target population for this study considers who are currently working in any Estonian organization within Tallinn Area. In this study mainly business service centre-based organizations have been targeted. Our targeted industry was among travels industry, manufacturing industry, logistic industry and financial sectors.

## 2.5. Statistical Tools and Techniques:

Descriptive Statistics; means, standard deviation and kurtosis were used to analyse the data. Alpha scores and chi square difference test was used to assess the internal consistency, homogeneity and uni-dimensionality of the measuring instrument (Clark and Watson 1995). To specify the relationship and influence between variables, linear regressions was used. In terms of statistical significance it was decided to set the value at a 95% confidence interval level (p<0.05). The hierarchical regression analysis and chi square fit test was performed to test the hypothesis. The software assistance has been taken where SPSS has been utilized as a means to support the analysis (SPSS 2009) to support the undertaken analysis.

# 2.6. Limitation of the Study

The current study has observed with four limitations. **First,** since the data has been gathered from the one city of the domain may restrict the generalized implication of the research findings. **Second** the data collected at single point of time, which hindered the investigation of possibility reserve causality between the studied variables. Hence, this depicts the need of longitudinal studies which would allow researchers to get more accurate result with respect to the conceptual understanding. **Third** the study has limited fund to conduct research with wider sample collection geographically and **fourth** limitation revolves around the fact that study has been incorporated on multi-sectors which may counter reacts the implication on particular sector.

# 3. RESULTS AND DISCUSSION

### **3.1.** Descriptive Statistics

#### 3.1.1. Descriptive Statistics of demographic profile

As mentioned earlier as well, total 203 respondents from employees across the organization, irrespective of roles and positions engaged in the questionnaire survey. Results indicate that 39.20 % of respondents were females and 60.8% were males. 70.6% of respondents were between the ages of 25 and 34, almost 18.6% were under the age of 24, and 7.8% were between the ages of 35 and 44. Approximately 2% of respondents were over 40 and only 1% was under 18. Majority of the employees was having experience for less than 4 years. The result data shows that 47.9% of the respondent working as a specialist, 9.4% specialist of the respondent is working as a manager and 7.3% of the respondent is working as a trainee. Most of the respondent, 70.6% working as a full-time employee, where as 15.7% working as a part time and 5% respondent working as a either contractual or internship. Most of the respondent (20%) would like to keep their working place secrete, where as other respondent was from Kuoni, Tumlare, Oshee, Transferwise, TTU, My-JAR, PKC group etc. This includes financial sectors , Tour and Travel industry, Educational sectors, Information technology, Logistics etc.

Age	Number of respondents	Percentage
18-24	38	18.60%
25-34	143	70.60%
35-44	16	7.80%
45-54	4	2%
above 55	2	1%
Gender		
Male	123	60.80%
Female	80	39.20%

Work Experience		
1-3 yrs.	154	76.40%
4-7 yrs.	34	16.70%
8-12 yrs.	11	4.90%
13-24 yrs.	2	1%
19-25 yrs.	2	1%
Employment status		
Full time	141	69.70%
Part time	41	20.20%
Contractual	21	10.10%
Designation Level		
Manager	19	9.40%
Non-Manager	97	47.90%
Staff	44	21.90%
Others	43	20.80%

The below figure illustarte the percentage distribution for each demographics factors



Figure 3.1. Illustare the age group among the respondennt.



Figure 3.2. Illustrate the male and female percentage among the respondent.



Figure 3.3. Illustrate the work experience of the respondent



Figure 3.4. Illustrate the employment status of the respondent



Figure 3.5. Illustrate the respective designation level of the employees (respondent)

# 3.1.2. Descriptive Statistics on Variable Elements

Knowledge sharing behaviour

	Mean	Std. Deviation
Written contributions		
I share documentation from personal files related to current work.	3.96	.655
I keep others updated with important organizational information through online discussion boards.	3.28	1.137
I contribute ideas and thoughts to company online databases.	3.42	1.164
I submit documents and reports	3.55	.874
I publish papers in company journals, magazines, or newsletters	3.90	.754
Organizational Communications		
I express ideas and thoughts in organizational meetings	3.52	1.040
I participate fully in brainstorming sessions	3.29	.959
I Propose problem-solving suggestions in team meetings	3.72	.834
I Answer questions of others in team meetings	3.24	.951
I Reveal past personal work-related failures or mistakes in organizational meetings to I	3.81	.754
help others avoid repeating these		
Personal Interaction		
I Support less-experienced colleagues with time from personal schedule	3.75	.849
I Engage in long-term coaching relationships with junior employees.	3.08	.997
I Spend time in personal conversation	3.74	.846
I Keep others updated with important organizational information through personal conversation.	3.59	.741
I Share experiences that may help others avoid risks and trouble through personal conversation.	3.46	.929
Communities of practice		
I Meet with community* members to create innovative solutions for problems that		
occur in work.	3.13	1.016
I Meet with community members to share own experience	2.11	1.016
I Meet with community members to share success and failure stories	2.71	1.129
I Meet with community members to work to encourage excellence	2.56	1.143
Support personal development of new community members	2.52	1.175
Valid N (listwise)		

From the above mention table its showing that total 203 respondent has answered the questionnare. Please note that all the respondent has replied in the scale of 1 to 5, therefore the lower the mean represent the lower the knowledge sharing participation in this aspect. In gernally all the items the mean avarage is more than 3.5 which means they respondent participite in the task, except "meeting to the community members to share own experience, encourage

them for excelence and also develop the new communiy members, where the particiption rate is low and the stanadrd deviation also relatively high , in compare to others items. Sharing file and docuemnets related jobs is the highest participation where the mean is 3.96, with a smaller standard deviation of .655. Others items are also having similar type of mean ranging from 3.05 to 3.96.

### **Employees Motivation**

	Mean	Std. Deviation
I will be received higher salary or bonus	3.42	1.164
I will receive promotions	3.42	.874
		-
I strengthen ties between existing members of the organization	3.90	.754
I expand the scope of my association with other organization members	3.52	1.040
I am confident in my ability to provide knowledge that others in my organization	3.29	.959
consider valuable.		
I have the expertise required to provide valuable knowledge for my organization	3.72	.834
I enjoy sharing my knowledge with colleagues	3.24	.951
I enjoy helping colleagues by sharing my knowledge	3.81	.754
My knowledge sharing with other colleagues is very important	3.75	.849
My knowledge sharing with other colleagues is valuable	3.08	.997
I intend to share knowledge with my colleagues more frequently in the future	3.74	.846
I will always make an effort to share knowledge with my colleagues	3.59	.741
Valid N (listwise)		

When its come for the motivation of the employees, almost all the items are having similar types of means which means respondent motivated with this factors. From the above mention table also it suggest that total 203 respondent has replied and most of them are agree on the above mention items. The highest mean represent highest assosication, in this case strengthen ties between the existing menbers is the most imortant thing. The means for this items is 3.90, where as employeees do belive that promotions is highly associtated with the knowledge sharing. From the above mention table it can be conculded that all above items motivate employees to share knowledge.

# Organizational Culture

	Mean	Std. Deviation
My company tries to create a unique family atmosphere	3.29	.959
My company emphasizes open communication	3.72	.834
My manager/supervisor encourages people to speak up when they disagree with a decision	3.24	.951
My manager is open to all questions	3.81	.754
I have a chance to meet with my manager one-to-one at least twice a year to discuss performance and goals	3.75	.849
My manager encourages people to work as a team	3.08	.997
My manager often communicates the overall organizational goals to us	3.74	.846
My manager provides help, training, and guidance so that I can improve my performance	3.59	.741
Valid N (listwise)		

Above table shows that total eight questiona was asked to find out the organizational culture . In terms of the organizational culture the most important point respondent agree on manager openness on the questions, which clearly represent a good relation between the employees and the manager. Although the mean value for all others items are also almost similiar which represent that, resondent are agreed on the above mention itesm strongly, with a very minimum difference between two employees ( lower standard deviation). In case of the manager encouragement to work as a team, has the lowest mean that means the manager activeness in this regards relatively bad. To initiate knowledge sharing between the team members the team works is very important, therefore such a low encouragement can influence on knwledge sharing behaviours of the employees. From the above mean, its can be concluded that creating a unique family atompshere, open discussion, communication, performance goals, training are the most important factor which keeps employees and manager very close to each others.

Perceived organizational support

	Mean	Std. Deviation
The organization values my contribution to its well being	3.42	1.164
The organization strongly considers my goals and values	3.55	.874
The organizations cares about my opinion	3.75	.849
I receive help from organizations when I have a problem	3.08	.997
The organizations really cares about my well being	3.74	.846
The organization tries to make my job as interesting as possible.	3.55	.874
Valid N (listwise)		

Perceived organizational support starts with the observation if the organizations are concerned about their employees or not. To find out this answer total 6 questions were asked to the respondent. Total 203 answered were recorded .For employees, the organization serves an important source of socio emotional source, such as individual goals whether its meeting or not, contribution bring any values to the organization etc. From the above mention table all most all the items are having mediocre mean value that means employees are agree on this aspect. The most is whether the organizations really care about the well being or not. In this case also the employees are more concern about their goals and values, individual contribution to the organization, personal opinion and off course the interest towards the jobs. This helps would support towards employees can increase the employees to understand their obligation and to help reach organizational goals and objectives as well along with their individual aspiration. Behavioural outcome of the perceived organizational support would include increase in activeness in the job and extra performance and decrease unhappiness towards the organization.

	Mean	Std. Deviation
Web 2.0(wiki, social media, emails) is very reliable platform for knowledge sharing	3.96	.655
Web 2.0 has the functionality I need	3.42	1.164
Web 2.0 provides very sensible and effective advice, if needed.	3.55	.874
I am totally comfortable working with web 2.0	3.90	.754
I always feel confident that the right things will happen when I use web 2.0	3.08	.997
Having the backing of legal statutes and processes makes me feel secure in using web 2.0	3.42	1.164
I believe that most technologies are effective at what they are designed to do so.	3.90	.754
I usually trust a technology until it gives me a reason not to trust it.	3.08	.997
Valid N (listwise)		

To find out the trust in technology web 2.0 in regards to knowledge sharing behaviours total 8 question were asked and received 203 response. Descriptive statistics for this factors were examined for all the variable. All measurement were done in the scale of 1 to 5. In terms of the realiability of the web 2.0 platforms, it has a mean of 3.96 with a low standrad deiavtion which represent that its very reliable in terms of day to day work. When it comes to the trust it seems that people do have a difference in the opinion and has a very mediocore mean of 3.08, with standard deviation of .997. When its comes to the efficiency of this technology, the higher the mean score represent a higher level of statisfaction. When it was asked the comfortness of the people working with Web 2.0, we have received a higher mean (3.90) which represent the higher comfortness to work with such systems. Also most of the employees belives that most techlogies are effective at what they are designed to do so. In terms of sensibility and functionality also we have received a mediocore value of 3.42 and 3.55 respectively, which also assosiate that the offered function is enough for day to day work.

# 3.2. Hypothesis Testing

Hypothesis 1:

Employee motivation factors i.e Expected organizational rewards, Reciprocal benefits, Knowledge self-efficacy, Enjoyment in helping others, Attitudes toward knowledge sharing and Knowledge sharing intentions significantly influence the knowledge sharing behavior.

The regression analysis has been performed to analyze the affect of employee's motivation i.e. organizational rewards, Reciprocal benefits, Knowledge self-efficacy, Enjoyment in helping others, Attitudes toward knowledge sharing and Knowledge sharing intentions significantly influence the knowledge sharing behavior. Hypothesis 1 has accepted as the model fit has been observed with adjusted  $R^2$  at 63.8 % at a significant level, F = 358.75, p<.05. The employees motivation has a significant influence on knowledge sharing ( $\beta$ =.80; p<.05).

Hypothesis	R	$R^2$	adjusted $R^2$	Beta	F	Sig.
1	.800	.640	.638	.800	358.753	.000

Hypothesis 2.

Organizational Culture factors i.e family orientation/loyalty, open communication, team approach and knowledge of manager influences the employees' knowledge sharing behaviour.

The regression analysis has been performed to analyze the affect of Organizational Culture factors i.e family orientation/loyalty, open communication, team approach and knowledge of manager influences the employees' knowledge sharing behaviour intentions significantly influence the knowledge sharing behavior. Hypothesis 2 has accepted as the model fit has been observed with adjusted  $R^2$  at 64.8 % at a significant level, F = 372.159, p<.05. The employees motivation has a significant influence on knowledge sharing ( $\beta$ =.806; p<.05).

Hypothesis	R	$R^2$	adjusted $R^2$	Beta	F	Sig.
2	.806	.649	.648	.806	372.159	.000

### Hypothesis 3:

Perceived organisational support is significantly influence the knowledge sharing behaviours

One this element "Perceived organizational support" (Sig. P=.000), towards knowledge sharing and knowledge sharing intentions were highly statistically significance at 5% level.

The R square value is the measure of how much of the variability in the outcome is accounted for by the variability of the predictors (Field A. 2005, p.154). Accordingly, one can tell that Perceived organisational support towards knowledge sharing and intentions for 51 % (R. Square =.513) of variability in knowledge sharing activity. Adjusted R square is .511 (less than the R square by .002). Hypothesis 3 has accepted as the model fit has been observed with adjusted  $R^2$  at 51.1 % at a significant level, F = 211.937, p<.05. The employees motivation has a significant influence on knowledge sharing ( $\beta$ =.716; p<.05).

Hypothesis	R	$R^2$	adjusted $R^2$	Beta	F	Sig.
3	.716	.813	.511	.716	211.937	.000

Hypothesis 4:

The trust in technology web 2.0 has string predictability towards knowledge sharing behavior.

The regression analysis has been performed to analyze the affect of trust in technology web 2.0 has string predictability towards knowledge sharing behavior knowledge sharing behaviour intentions significantly influence the knowledge sharing behavior. Hypothesis 4 has accepted as the model fit has been observed with adjusted  $R^2$  at 64.8 % at a significant level, F = 374.010, p<.05. The employees motivation has a significant influence on knowledge sharing ( $\beta$ =.806; p<.05).

Hypothesis	R	$R^2$	adjusted $R^2$	Beta	F	Sig.
4	.806	.649	.648	.806	374.010	.000
Hypothesis Testing Model :-



	Hypothesis	Regression Results	Status
H1	: "Employees motivation is significantly influence the knowledge sharing behaviors."	(Beta=.80, P<0.05)	Accepted
H3	"Organizational cultural factor is significantly influence the knowledge sharing behaviors"	(Beta=.806, P<0.05),	Accepted
H4	Perceived organisational support is significantly influence the knowledge sharing behaviours	(Beta=.716, P<0.05	Accepted
H5	The trust in technology has string predictability towards knowledge sharing behavior.	(Beta=.806, P<0.05)	Accepted

#### **3.3.** Qualitative data analysis and interpretation

The result from the qualittive interviews provides deeper insights into the indivisual, orgnzational and technolical perspective towards the knowledge sharing behaviours. The interview highlights all possible factors which can affect the knowledge sharing behaviours. Interview data were collected during semi structured interviews. These were audio taped and transcribed.

#### 3.3.1. Participation details

All the interviews were arranged in Tallinn and the targed population was mostly experience (minimum working for 1 yrs for an organization) specialist, Team leaders, Supervisors. This level of experience allowed participants to draw on past experiences and discuss their perceptions in an in-depth and expressive manner.

#### 3.3.2. Sample Size

Typically, sampling in qualitative research consists of small populations that are studied in depth. According to Tan and Hunter (2002), "A sample size of 15 to 25 within a population will frequently generate sufficient constructs to approximate the universe of meaning regarding a given domain of discourse". In different literature review the proposed number of sample is different. For this study purpose I have taken total 20 interviews with non manager employees , team leader, supervisors who having at least 1 year of work experience. This interview covers almost different sectors in Tallinn, Estonia.

#### 3.3.3. Confidentiality

All datas are confidenial and no personal data has collected for this interview and there was no monetary compensitation was given to conduct this interview.

#### 3.3.4. Limitation

Since the data is captured from a small sample size, the findings cannot be generalized to the wider population (Creswell 2012). Also, since the researcher was present during interviews, which is an unavoidable situation in qualitative research, it can potentially influence participant responses. This can introduce bias when analyzing and interpreting data.

#### 3.3.5. Result

To find out the factor which affetc the knowledge sharing behaviours especially in Estonia based organization , the question were asked from all the previously discussed litertaure review. The questionnare can be dividded into mainly first part 1) Employees motivation, 2) Experince 3) affect of organizational culture 4) Perceived organizational support and 5) trust in technology web 2.0. These factors were asssed though open minded questions. The summery of the interviews is as follows :-

Employees Motivation :-

To find out the factor which affect the motivation of the employees, i have asked all 20 participiant the similar question ;-the feedback is as follows

Significance factor	Qualitative result from interviews
Employees Motivation	"I love helping others . It does not make sense to keep knowledge among ourself. We can always pass the infromation to other so that every one can learn and help when require"
	" Sharing knowledge can be fun. I feel this is my duty to share what i know"
	" I share knowledge, beacuse i have to show my potential to the company, which can lead us a better positions and promotions in the future"
	" I think its very important to set our goals to motivate ourself"
	" sucess stories makes me motivated "

All participants demonstrated an understanding that both people involved in the knowledgesharing event have motivations that affect the event. Twelve times people identified the motivation of both parties as an important aspect of knowledge sharing. Many of participant do not participate in knowledge sharing as they think they are not expert in their work and some are having feat to replace with other person. The factor which affect their motivation is listed below:-

Respondednt comment	Count
	_
Love to share knowledge	7
Knowledge sharing can leads to job betterment	12
Knowledge sharing can leads to job betterment	12
Need to show potential to the company	5
Increase my popularity	3
Contribution towards growth of the company	9

Work experience

To find out the whether work experience affect or have any relation with the knowledge sharing behaviours, I askd to all 20 participinat if work experience contribute to knowledge sharing? The finding is as follows :-

Significance factor	Qualitative result from the interview	
Work Experience	<ul> <li>" work experince gives you an insight what is happening inside the organizations and you act accorinngly"</li> <li>" With out knowledge its not possible to share some information. Other wise wrong information can go and can have bad impression in the team"</li> </ul>	

Afte the interview all most all participant agreed that work experience is require to share knowledge. In the later stage we have established this hypothesis through literature review.

#### Trust in Technology web 2.0

Knowledge sharing can be a very personal event and trust is needed to facilitate this type of interaction (Ring, 1996). The dyadic interaction between individuals is shaped by previous interactions. Two forms of interpersonal trust, affect-based and cognitive trust (Holste & Fields, 2010), enable knowledge sharing and creation (Abrams, Cross, Lesser, & Levin, 2003). In several instances I observed ways in which future knowledge-sharing events are affected by an erosion of trust between individuals. To check the trust in technology employee use in day to day use, the details is as follows: -

Significance factor	Qualitative result from interviews
Trust in Technology web 2.0	"Latest technology provides much more better understanding and interest towards the work"
	"I Trust in Google search and other internet sources which can provide at least a sense of the information"
	"day to day work we use ERP, emails, social media its really help to stay connected with other office people and help us in knowledge sharing or sharing experience"
	"I don't believe to keep my data in the cloud or knowledge bank, due to hacking issue. My company already have experienced this kind of problem"
	"My company does not allow to share any information online"
	"we share knowledge and experience through Facebook or any other social media which allow us to share information quickly"

The factor highlighted during the interview process is noted below

Respondent comment	Count
Social media- Facebook/internal networking	4
Lotus notes	3
ERP systems, sales force, emails	1
Power point, emails, news letter	15

Perceived organizational support

The commitment between the organization and employee is very important. Perceived organiational support (POS) is the bondage between an employee and organiation. When an indivisual perceived organizational support they develop a greated relation with the company which leads to the intention to stay in the company, job satisfication, dedication and commitment towards the company. To find out the factor which affect the POS I have asked few questions to the participant, the summary of the interviews is as follows :-

Significance factor	Qualitative result from the interview
Perceived Organzational support	" you become more valuable by sharing knowledge. You create a value on you by which you can influence people and organaztion will notice you and take care about your well beings"
	"organzational support is require to sustain any comapany.but my company does not care about the employee much, which create a barrier between the company and the employee. Most of the employee do not trust the organization"
	"People are leaving company due to lack of support. To me listening opinion is most important"
	"We do not know whether organization value our work or not ! unless there is a problem everythign is fine"

### Organizational Culture

To find out the role of Organizational Culture in knowledge sharing a series of questions were asked and the feedback is recored as follows :-

Significance factor	Qualitative result from the interview
Organizational Culture	<ul> <li>" I think my manager support is a huge plus for us.I think good manager can inspire you a lot and make a huge diffrence in motivation. When I was fresher the manager discuss about my progress and requirement like training , help etc. which helped me a lot to improve and learn faster. Therefore I will say the supportive manager, training and guidance, helping with opprtunity , develop a new jounior can help to stick to company for long time"</li> <li>"its very important that senior member of the team take care of their jounior. Receive good help and work as a team. Therefore the maintaining the team work and encourage the work is most important"</li> <li>"Managers claims to encourage knowledge sharing, and at times knowledge sharing seems to be the solution to all problems. Yet, very few managers are truly capable of empowering and prioritizing knowledge sharing."</li> </ul>

From the organzational culture prospective the main important factor was manageial support, work as a team. Also helping, training and guidance to the ther team members an important factor for knowledge sharing motivation. On the other hands the non support from manager, colleague and not valuing other leads to the dissatisfaction towards jobs and there will be a barrier towards knowledge sharing.

## CONCLUSION

Present study focused primarily on exploring Employees motivaion, Organizational culture, perceived organational support, Trust in tecnhogy to check the infleuence on knoledge shaing behaviours. For this sutudy each dimesin has been investiagted throughly. For instance for Employee motivation factor we have investigated Expected organizational rewards, Reciprocal benefits, Knowledge self-efficacy, Enjoyment in helping others, Attitudes toward knowledge sharing and Knowledge sharing intentions. As a indivisul factor the work experiecnce also been investigated to check the relation with the knowledge sharing. The other factors includes organizational culture where we have investigated the Family orientation / Loyalty, Open communication, team approach, knowledge of managers. In case of perceived organizational support the managerial support and openness has been studied in details. Finally Trust in Technology web 2.0, we have discussed the recent time technological advantage and dependibiliy and infleunce in knowledge sharing.

From our study hypothesized the relationship between employees motivation and knowledge sharing behaviours, which can be validated though the literature similar type of study which validate our study (Lin H., Knowledge sharing and firm innovation capability: An empirical study, 2007). Unlike our survey this literture was also showed that motvation factors such as reciprocal benefits, knowledge self-efficacy, and enjoyment in helping others were significantly associated with employee knowledge sharing attitudes and intentions. Which is ln line to our result as well. Therefore this study can be validated for Estonian based organizations also. In our conceptual model we tried to found out , whether work experience has a influence of knowledge sharing or not. From our qualitative analysis it is found that, the work experience add much more sense to help other and share knowledge to their jouniors colleagues. In the same context Lee, C. S., & Ma, L. (2012) found out that prior experince with social media was a significant determination of news sharing intentions.Also the shairng knowledge based on the prior expertised is already validated by Reychav, I., & Weisberg, J. (2010). Therefore prior knowledge or work experience can be validates in Estonian context. The study related to the organizational culture also was hypothesized the relation between the knowledge sharing behaviours and the

culture and found perfectly correlating. The study result also indicate that organizational culture affect very much in regards to knowledge sharing behaviours. This is already established in our study hypothetically. In the similar type of investigation done by (Al-Alawi, Al-Marzooqi, & Mohammed, 2007) validate the hypothesis. In this investigation it was found that interpersonal trust, communiation, rewards, contribute towards the nurturing of the staff and help in knowledge sharing within the organization. In our next segment we have discussed how perceived organizational support has a significant importance in knowledge sharing. In the Eisenberger (1986) model explain how perceived organizational support inflence in knowledge sharing. For our study I have adpoted the same model and found to be correlated with the sample size . Therefore we can easily established this hypothesis result with our model. Therefore it can be said that , this model implies to Estonian based organization also. Regrading the trust in technology web 2.0, the hypothesis model is accepted and found suitable for our study purpose also. The similar kind of investigation was done by (Al Saleh & Paroutis, 2009) with a large number of sample size where, it found the similar correlation without current study. The trust in technology web 2.0 has a greater significance with regards to knowledge sharing behaviours.

The present thesis is making two important contribution; first contextual as it tends to investigates the individual, organizational and technological factors' influence on knowledge sharing behaviour in Estonian organizational context and second it gives conceptual contribution with finding relationship of trust in technology and knowledge sharing behaviour hence ensuring theoretical and practical contributions. The findings of this research gives numerous implications to the practical working environment, this has been explained in three levels, First, with Individual level, as the study found that employee motivation has significance influence on the knowledge sharing behaviour, therefore it recommends to the employee for being open in sharing with ideas and experiences in their peers, this will ensure the completion of intrinsic motivation as individual intrinsic motivation is in his own control, and he may not only influence his internal feeling of contentment instead this will ensure positive organizational behaviour which has much influence on organizational performance as well (Luthans, 2011). This also found that employees working in Estonian firms are less participating with community members to share their experience, success and failure stories and letting them to encourage work excellence, hence this is recommended to the employees to involve in community meetings and give their active participation. Second; the study also recommend to professionals who are employed in leadership positions to establish the culture that ensure open communion where employees are ensure the psychologically safe environment. This will help them to voice their opinion and ensure their participation. This study also recommend to Estonian organization to

involve employees in team participation so that knowledge sharing can be ensured in both formal and informal settings of work behaviour. Third this study postulates implication at organizational level. As the support and culture found significant in making and shaping of knowledge sharing behaviour hence the study recommends developing the support mechanism and establishing knowledge management policies that help employee to contribute his or her ideas with internal employees. And rewards practices to written and oral contribution of the employees, as organizational knowledge management should strive hard to turn tacit knowledge into explicit. Since the trust in technology plays important role in shaping knowledge sharing behaviour, organizational are advised to facilitate trusted platforms to their employees by implementing the legal compliance.

The present study has incorporated limited sample of employees who are employed with Tallinn organizational and collected data at one point of time, this presents the scope of further investigation in order to get more generalized and valid understanding on obtained results. The study has observed the generalised understanding on knowledge sharing behaviour in Estonian organization which limits to develop the insights on particular sector as employee working in service sector may have less likely intention to share their knowledge then to employee working in educational industry. The study also presents the scope of contextual factor investigation as size of company; nature of job may also influence to knowledge sharing behaviour, and also raises the questions to investigate the practices and antecedents of long lasting knowledge sharing behaviour.

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# APPENDICES

## **Appendix 1. SPSS Analysis**

Table 1 :- Knowledge sharing Behaviour

KMO and Bartlett's Test				
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			.701	
Bartlett's Test of Sphericity Approx. Chi-Square			1493.581	
df			190	
Sig.			.000	
Cronbach's				
Alpha	N of Items			
.702	20			

Source: dangar(2019,12), author's calculations

Table 2.

### SPSS Analysis :- Organizational Culture



Source: dangar(2019,12), author's calculations

Sig.

.000

## Table. 3

## SPSS Analysis : Perceived organizational Support

Reliability S	tatistics		
Cronbach's			
Alpha	N of Items		
.701	6		
KMO and Bartlett's Test			
Kaiser-Meyer-Olki	in Measure of S	Sampling Adequac	

Kaiser-Meyer-Olkin Measure	of Sampling Adequacy.	.669
Bartlett's Test of Sphericity	Approx. Chi-Square	893.211
	df	15
	Sig.	.000

Source: dangar(2019,12);author's calculation.

Table 4.

## SPSS Analysis: Trust in Technology – web 2.0

Reliability StatisticsCronbach'sAlphaN of Items.7188

#### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.780
Bartlett's Test of Sphericity	Approx. Chi-Square	373.519
	df	28
	Sig.	.000

Source: dangar(2019,12); author's calculation

Table 5.SPSS Analysis. Employees Motivation

Reliability Statistics									
Cronbach's									
Alpha	N of Items								
.809	12								

KMO and Bartlett's Test								
Kaiser-Meyer-Olkin Measure	.767							
Bartlett's Test of Sphericity	806.449							
	df	66						
	Sig.	.000						

Source: dangar(2019,12); author's calculation

# **Appendix 2. Regression Analysis**

Hypothesis 1

### **Result of Regression Analysis**

			Coefficients				
	Unstandardized Coefficients		Standardized Coefficients			95.0% Confic for	lence Interval · B
Model	В	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1 (Constant)	1.005	.119		8.447	.000	.771	1.240
Employee Motivation	.630	.033	.800	18.941	.000	.565	.696

a. Dependent Variable: Knowledge Sharing Behaviors

#### Model Summary

					Change Statistics				
		R	Adjusted R	Std. Error of the	R Square	F			Sig. F
Model	R	Square	Square	Estimate	Change	Change	df1	df2	Change
1	.800ª	.640	.638	.22557	.640	358.753	1	202	.000

a. Predictors: (Constant), Employee Motivation

Source : dangar(2019,12); author's calculation

### Hypothesis 2.

#### **Result of Regression Analysis**

				Model Summary					
	Adjusted Change Statistics								
		R	R	Std. Error of the	R Square				Sig. F
Model	R	Square	Square	Estimate	Change	F Change	df1	df2	Change
1	.806ª	.649	.648	.22308	.649	372.159	1	201	.000

a. Predictors: (Constant), Organizational culture

	ANOVAª											
		Sum of		Mean								
Ν	lodel	Squares	df	Square	F	Sig.						
1	Regression	18.521	1	18.521	372.159	.000 <sup>b</sup>						
	Residual	10.003	201	.050								
	Total	28.524	202									

- a. Dependent Variable: Knowledge Sharing Behavior
- b. Predictors: (Constant), Organizational culture

#### Coefficients

		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
							Lower	Upper
Mode	el	В	Std. Error	Beta	t	Sig.	Bound	Bound
1	(Constant)	.945	.120		7.876	.000	.708	1.181
	Organizational culture	.643	.033	.806	19.291	.000	.577	.709

a. Dependent Variable: Knowledge Sharing Behaviors

b.

### Hypothesis 3.

Result of Regression Analysis.

	Model Summary												
					Change Statistics								
			Adjusted R	Std. Error of the	R Square	F			Sig. F				
Model	R	R Square	Square	Estimate	Change	Change	df1	df2	Change				
1	.716 <sup>a</sup>	.513	.511	.26282	.513	211.937	1	201	.000				

a. Predictors: (Constant), Perceived organizational support

	ANOVAª											
-		Sum of		Mean								
Мос	del	Squares	df	Square	F	Sig.						
1	Regression	14.640	1	14.640	211.937	.000 <sup>b</sup>						
	Residual	13.884	201	.069								
	Total	28.524	202									

a. Dependent Variable: Knowledge Sharing Behaviors

b. Predictors: (Constant), Perceived organizational support

	Coefficients										
			ardized	Standardized			95.0% C	onfidence			
		Coeffic	cients	Coefficients			Interv	al for B			
			Std.				Lower	Upper			
Mod	el	В	Error	Beta	t	Sig.	Bound	Bound			
1	(Constant)	1.390	.128		10.829	.000	1.137	1.643			
	Perceived organizational support	.521	.036	.716	14.558	.000	.450	.591			

a. Dependent Variable: Knowledge Sharing Behaviors

b.

## Hypothesis 4.

## Result of regression analysis

	Model Summary											
					Change Statistics							
			Adjusted R	Std. Error of	R Square	F			Sig. F			
Model	R	R Square	Square	the Estimate	Change	Change	df1	df2	Change			
1	.806ª	.649	.648	.22256	.649	374.016	1	202	.000			

a. Predictors: (Constant), Trust Technology

ANOVAa

Mod	lel	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.527	1	18.527	374.016	.000 <sup>b</sup>
	Residual	10.006	202	.050	t	u li
	Total	28.533	203			

a. Dependent Variable: Knowledge Sharing Behaviors

b. Predictors: (Constant), Trust Technology

#### Coefficients

			ndardized	Standardized Coefficients				Confidence rval for B
							Lower	Upper
Mode	el	В	Std. Error	Beta	t	Sig.	Bound	Bound
1	(Constant)	.946	.120		7.903	.000	.710	1.182
	Trust Technology	.643	.033	.806	19.339	.000	.577	.708

a. Dependent Variable: Knowledge Sharing Behaviors

# Appendix 3. Questionnaire

# Part I: Personal Information

Instruction: Please mark  $\checkmark$  in the match and in the fact that most meets your comment.

1.)	Gender		
	□ Male	□ Female	
2)	A		
2.)	Age		
	$\Box$ 20 – 25 years	$\Box 26 - 30$ years	□ 31 – 35 years
	$\Box$ 36 – 40 years	$\Box$ above 40 years	
3.)	Education		
	□Bachelor Degree	□ Post Graduate	Doctorate.
4.)	Tenure of Employme	ent	
	$\Box$ Less than a year	□1-3 Years	$\Box$ 3-5 years
	□ 5-10 years	□ More than 10 years	
5.)	Designation level		
	□ Manager	□Non-Manager	$\Box$ Staff $\Box$ Other

Part II: Instruction: For each of the following items, please mark  $\checkmark$  in the fact in each statement Knowledge sharing behaviors

Questions	Strongly Agree	Agree	Neutral	Disagree	Strongly
	5	4	3	2	Disagree 1
		I			
1	I express ideas and thoughts in organizational meetings				
2	I participate fully in Brainstorming sessions				
3	I propose problem solving suggestions in team meetings				
4	I answer questions of others in team meetings				
5	I ask good questions that discuss in team meeting				
6	I make presentation in organizational meetings				
7	I support less experienced colleagues				
8	I engage in long term coaching relationships with Junior				

I spend time in personal conversation				
I Keep Others updated with personal conversations				
I share passion and excitement through personal conversations				
I have online chats with others to help them with their work-related issues				
I spend time in emails communications				
I meet with Community members				
I meet community members to share experience				
I meet community member to share success story				
I share experience that may help others				
I meet with community member for innovation works				
I meet with Community members to work encourage work				
	I share passion and excitement through personal conversations         I have online chats with others to help them with their work-related issues         I spend time in emails communications         I meet with Community members         I meet community members to share experience         I meet community member to share success story         I share experience that may help others         I meet with community member for innovation works         I meet with Community member for innovation	I Keep Others updated with personal conversations       I         I share passion and excitement through personal conversations       I         I have online chats with others to help them with their work-related issues       I         I spend time in emails communications       I         I meet with Community members       I         I meet community members to share experience       I         I meet community member to share success story       I         I share experience that may help others       I         I meet with community member for innovation works       I	I Keep Others updated with personal conversations       I         I share passion and excitement through personal conversations       I         I have online chats with others to help them with their work-related issues       I         I spend time in emails communications       I         I meet with Community members       I         I meet community members to share experience       I         I meet community member to share success story       I         I share experience that may help others       I         I meet with community member for innovation works       I	I Keep Others updated with personal conversations       I       I         I share passion and excitement through personal conversations       I       I         I have online chats with others to help them with their work-related issues       I       I         I spend time in emails communications       I       I       I         I meet with Community members       I       I       I         I meet community members to share experience       I       I       I         I meet community member to share success story       I       I       I         I share experience that may help others       I       I       I         I meet with community member for innovation works       I       I       I

20	I support personal development of new community		
	members		

## **Organizational Culture**

Questions	Strongly Agree	Agree	Neutral	Disagree	Strongly
	5	4	3	2	Disagree
					1
	My company tries to create a unique family				
	atmosphere				
1					
	My company emphasizes open communications				
2					
	My Manager/supervisor encourage people to speak up				
3	when they disagree with a discussion				
	My Manager is open to all questions				
4					
4					
	I have a chance to meet with my manager one to one at				
5	least twice a year to discuss performance				
J					
6	My Manager encourages people to work as a team				
7	My Manager often communicates the overall				
	organizations goals				

8	My manager provides help, training, and guidance so that I can improve my work		
9	Meet with community members to work encouragement for excellence practice.		
10	Support Personal development of new community members.		

# **Employees Motivation**

Questions	Strongly Agree	Agree	Neutral	Disagree	Strongly
	5	4	3	2	Disagree
					1
		1			
	I will be received higher salary or bonus				
1					
	I will receive promotions				
2					
2	I tie between existing members of the organization				
3					
	I expand the scope of my association with others				
	organization members				
4					
	I am confident in my ability to provide knowledge that				
5	others in my organization consider valuable				

6	I have the expertise required to provide valuable		
	knowledge for my company		
7	I enjoy sharing my knowledge with colleague		
0			
8	I enjoy helping colleagues by sharing my knowledge		
9	My knowledge sharing with other colleagues is very		
	important		
	-		
10	My Knowledge sharing with others colleague is		
	valuable		
11	I intend to share knowledge with my colleagues more		
	frequently in the future		
12	I will always make an effort to share knowledge with		
12			
	my colleagues		

### **Perceived organizational Support**

Questions	Strongly Agree	Agree	Neutral	Disagree	Strongly
	5	4	3	2	Disagree
					1
	The organization values my contribution to its well				
	being				
1					
	The organization strongly considers my goals and				
2	values				
	The Organizations care about my opinion				
3					

4	Help is available when require		
5	The organizations really care about my well beings.		
6	The organization tries to make my job more interesting as possible.		

# Trust in Technology web 2.0

Questions	Strongly Agree	Agree	Neutral	Disagree	Strongly
	5	4	3	2	Disagree
					1
	Web 2.0 (wiki, social media, emails) is very reliable	[			
	platform for knowledge sharing				
1					
	Web 2.0 has the functionality I need				
2					
	Web 2.0 provides very sensible and effective advice				
3	if needed				
C					
	I am totally confident working with web 2.0				
4					

	I always feel comfortable that right things will		
5	happen when I use web 2.0		
6	Having the legal backup of legal statues and process make me feel secure in using web 2.0		
7	I believe that most technologies are effective at what they are designed to do so		
8	I usually trust technology until it gives me a reason not to trust it.		

#### Interview Questionnaire

- Tell me about a time you shared knowledge with a coworker. a. Can you describe what you shared with them? b. Why did you share with them? c. Did you hold anything back?
   d. Did you seek that person out or did they seek you? e. How does it make you feel when you share knowledge?
- 2. Do you think is there any relation between work experience and knowledge sharing behaviours?
- 3. What types of technology do you use in your daily work? Does the company provide you with tools to share knowledge with others? a. Email? b. Knowledge database? c. Meetings or informal gatherings?
- 4. Does the company encourage sharing your knowledge with your coworkers? a. Why/why not? b. Do you feel organization values your opinion? c. Do you feel organization value your contribution and care about you?
- 5. Do you think your company take seriously about training, guidance and betterment of yours? You manager/supervisor listen to your idea and work as a team?