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YUSMAR ARDHI HIDAYAT

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Head of the Doctoral School: Prof. Dr. Balogh, Péter professor, DSc

**TRUST, INNOVATION, AND FINANCIAL
PERFORMANCE OF INFORMATION AND
COMMUNICATION TECHNOLOGY COMPANIES IN
A DISRUPTIVE ERA**

Prepared by:

YUSMAR ARDHI HIDAYAT

Supervisor:

Dr. habil. OLÁH JUDIT

DEBRECEN

2021

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A DISRUPTIVE ERA**

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“Management and Business”

Written by: Yusmar Ardhi Hidayat certified

Supervisor: Dr. habil. Oláh Judit

Doctoral final exam committee:

	name	academic degree
Chair:	Edit Szűcs.....	Professor. Dr.
Members:	Andras Fehér.....	Dr.
	László Vasa.....	Professor. Dr.
	Zsuzsanna Éva Naárné.....	Dr.

Date of the doctoral final exam: 2021.05.xx

Reviewers of the Dissertation:

	name, academic degree	signature
Prof. László Vasa		
Dr. Zsuzsanna Éva Naárné.....		

Review committee:

	name, academic degree	signature
Chair:	Prof. Dr. Edit Szűcs	
Secretary:	Dr. Andras Fehér.....	
Members:	Prof. László Vasa.....	
	Dr. Zsuzsanna Éva Naárné.....	
	
	
	

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INTRODUCTION

This section described the significant role of the Information and Communication Technology (ICT) sector in Hungary, competitive pressure, and a previous resume of scientific manuscripts relating to trust, innovation, business performance, and research contribution.

This study adopted the term of Information and Communication Technology sector based on the International Standard Industrial Classification of All Economic Activities (ISIC), which internationally classifies economic activity types in economic statistics. Information and communication technology (ICT) sector incorporates the production and distribution of information and cultural products to send out or disseminate products, namely data or communications, information technology accomplishments and dealing with data and other information service activities. ICT sector includes the main activities in publishing, software publishing, motion picture and sound recording, radio and TV broadcasting and programming, telecommunication activities, and information technology activities, and other information services (UNITED NATIONS, 2008; OECD, 2011).

In line with Industry 4.0 in current times, the Hungarian Information and Communication Technology (ICT) sector had an essential role in the economy. Regarding the macroeconomic share, the ICT sector contributed five percent of the overall Gross Domestic Product (GDP) in 2018 (KSH, 2020), and it increased slightly by 0.7% in 2019. It reached about six percent at the end of 2020 (EMIS, 2020C). Indeed, this sector could support the other sectors, such as the manufacturing sector, which had the highest contribution of GDP, at a value of 22%. Besides, the ICT sector's innovative application also simplifies other sectors such as wholesale and retail trade, public administration, real estates, and transportation to perform e-business. This sector continuously contributed positively to economic share (EMIS, 2018A).

This sector comprised about 1400 Information and Communication Technology (ICT) companies dominated by multinational companies providing telecommunication service (EMIS, 2018B). ICT corporates provide technologies of communication, namely the Internet, wireless connection, computers, software, applications, mobile phones, websites, applications, social networking and other media applications which enabling users to access, store, retrieve, and manipulate information in digital forms (UNITED NATIONS, 2008; OECD, 2011). They recruited 60,304 labors in 2018, and it surged by about 30% in 2020 (EMIS, 2020B). They booked revenues of approximately 7 million Euro in 2018, and it grew up to approximately 45% in 2019. In general, the profit of ICT companies tended to proliferate for the last three years. This upward trend was expected to continue, followed by the challenges of achieving

and maintaining significant returns. The promising revenue has attracted ICT firms to contend with others in the competitive market (OLÁH ET AL., 2019A). Therefore, about 10% of ICT companies were shut down in the last two years (EMIS, 2020A).

ICT corporates also do battle with their competitors and should encounter challenges in a disruptive era. This study described a disruptive era based on phases of the model of disruptive innovation. A disruptive era illustrates a period when the start-up corporates disrupt the existing corporates from the market because the newcomer corporates offer innovative products or services to low consumers (CHRISTENSEN, 1997, 2006). As time goes, the performance of innovative products attracts consumers from the medium and high tier. The medium and high tier consumers shift their demand from buying incumbents' products to the newcomers' ones when innovative products' performance of newcomer companies exceed consumers' expectation. Consequently, start-up companies will obtain more profit than incumbent corporates. Then the newcomer companies will sustain in the market while the incumbent firms will go out of business (CHRISTENSEN, 1997, 2006; ADNER, 2002).

To survive in a disruptive era, ICT companies should accomplish efficiency production, develop trusted collaboration, and improve innovation to achieve profit. Those issues had been thoroughly studied and well documented by some scholars. In an internal organization, trust supports efficiency (SAKO, 1992) and organizations' effectiveness by simplifying interpersonal relations and internal integration (BUGDOL, 2013). As a consequence, ICT companies should accomplish efficiency production to achieve profit by developing internal trust. Internal trust supports the interactions between employees and management in the workplace (PORTA ET AL., 1996). Then, some scholars examined a consistent association between interpersonal trust and work performance. Some analyses showed that internal trust improved employees' productivity concerning the company's performance (BROWER ET AL., 2009; FULMER-GELFAND, 2012). Trust between employee and manager also reduced transaction costs (DAVIS ET AL., 2000; DYER-CHU, 2003). Besides, trust in management was positively related to a company's financial performance in sales and profits (DAVIS ET AL., 2000).

At the same time, ICT companies should have a network with business partners to support production and business performance. ICT companies should build long-term, trustworthy partnerships and good business networks (OLÁH, ET AL., 2019B). For example, ICT companies could collaborate with their networks to provide data processing services for the customers or partners. Performing cooperation incorporates interfirm trust as a strategy to maintain collaborative relationships between companies (OLÁH ET AL., 2017). Some scholars argued that the network between inter-firms acquired trust to enhance company performance

by reducing transaction costs, reducing monitoring, and ensuring and sustaining networks (SAKO, 1992; WILLIAMSON, 1993B; SAKO-HELPER, 1998). Trust takes a role as an economic safeguard in bounded networking to govern the partner(s) to perform the actions to support the production process (UZZI, 1996; WILLIAMSON, 1993B).

Trust in business partners also develops integration, which particularly enhances coordination between the different business parties. Trust stimulates smooth cooperation, reduce agency and transaction costs, encourages an efficient market exchange, and improves firms' capability to adjust to challenges and adaptation (MOLINA-MORALES ET AL., 2011), which develops innovation. Trust in an internal organization and trust in the company network involves vulnerabilities, such as reneging on contracts and partners' low integrity. Companies rely on institutions, i.e., states and the judiciary enforce the law to protect against the threat of default in business contracts (GOERGEN ET AL., 2013). Various institutions' performance ignites trust in the institutions that connected to rebuild or to weaken interpersonal trust and trust in business partners. The previous argument was coherent with the argument that the government's performance could provide law protection and business climate as the requirements in the business cooperation. The previous suggestion was backed up by scholars as follows. GOERGEN ET AL. (2013) argued that high levels of trust in business partners combined with high levels of trust in government were likely to be counterproductive. Then, both trusts ultimately had a negative influence on firm performance.

Recent studies revealed that trust is a decisive impact on business performance, but the correlation between trust and business performance continues a debatable area of investigation. This research discovered a research gap that the connection between interpersonal trust and business performance is still elusive. DAVIS ET AL. (2000), JING ET AL. (2014), OLÁH ET AL. (2017), and ALLEN ET AL. (2018) investigated that interpersonal trust had a positive influence on business performance. However, ZAHEER ET AL. (1998) examined that interpersonal trust did not affect business performance. In study cases of the direction between intra-organizational trust and business performance, most cohort investigations indicated a strong relationship of inter-organizational trust and business performance (BIEN ET AL., 2014; GAUR ET AL., 2011; SHAHMEHR ET AL., 2015; ZAHEER ET AL., 1998). The results, as mentioned earlier, were in contrast with the findings from OLÁH ET AL. (2019B).

Regarding the impact of institutional trust on company performance, GOERGEN ET AL. (2013) examined that trust in government and firm-level trust positively affected performance and are substitutes for each other. On the other hand, trust in the public and stakeholders negatively impacted the company's profitability (OLÁH ET AL., 2019B). From the review of

the different results, this is the main point to conclude that limited attention has investigated the relationship between interpersonal trust, inter-organizational trust, institutional trust and business performance simultaneously. Consequently, this research contributed to filling the last research gap by proposing integrative trust on business performance. This study illustrated the research gap and its research contribution in Figure 1.

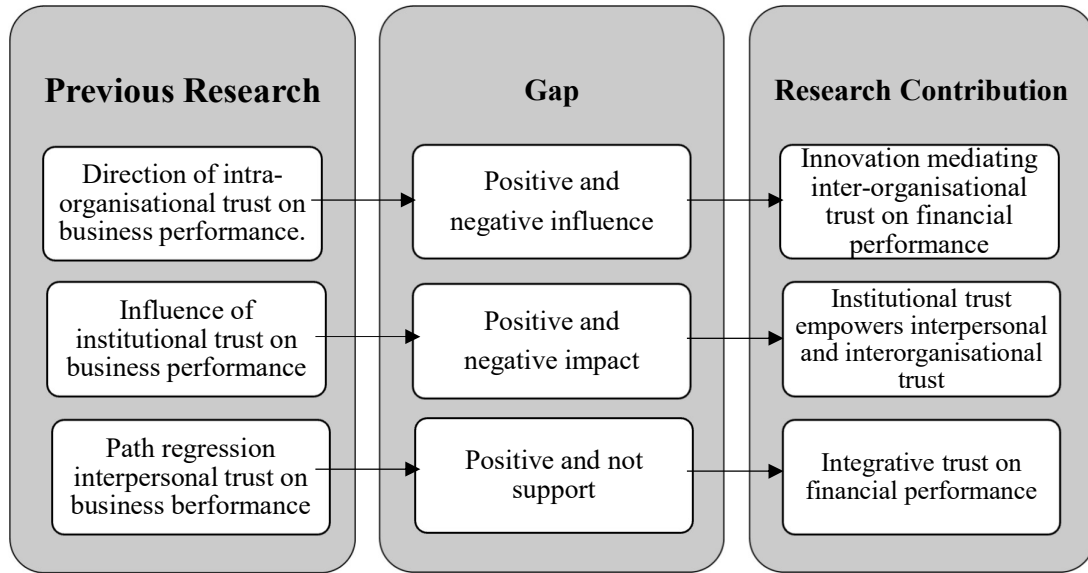


Figure 1. Research gap and study contribution

Source: Own compilation (2020)

This study proposed an integrative trust affected financial performance. The integrative trust consisted of institutional trust, internal trust, and inter-organizational trust. The conceptual framework started from the institutional trust as an external variable that empowered both internal trust and inter-organizational trust in the company. Then, the internal trust boosted trust between the company and its partner, which affected innovation and financial performance.

1. INTRODUCTION OF THE TOPICS AND OBJECTIVES

This section illustrated the related research topics in social capital, transaction cost, innovation, and business performance. This part also discussed the research gap, objectives, research questions, hypotheses, and study approach.

1.1 Research topics

This part reviewed previous research of trust in the framework of social capital, then transaction cost, and the relationship between social capital and business performance. This section also explained how trust stimulating innovation and financial performance in business collaboration.

This study argued that trust supported a business relationship (LAAN ET AL., 2012). Firstly, trust in government establishes an engagement of society and among business entities and their associates. The natural condition in Hungary's politics, trust in government remained low (NAGY ET AL., 2016). The lack of trust in the government also ensued in Korea (RIM-DONG, 2018). Consequently, the distrust of government leads to distrust in business. On the other hand, trust in government, supported by fair public administration, inspires business trust and supports a favourable business environment (KIKUCHI, 2008). The debatable postulates in politics and business situation inspired this study to explore the effect of trust in government on interpersonal confidence in the companies and trust in business partners.

Subsequently, trust in government provides a slightly impact on personal awareness. The employee owns personal confidence in the government. When the employees interact with their colleagues, they bring personal ideas and background into their workplace. Therefore, social interaction between the employees, their colleagues, and their managers represents social capital. They communicate, connect, and share their different ideas to perform collective actions in the framework of the company's objectives (PUTNAM, 1995). The company's level of interpersonal trust links social differences among employees, colleagues, and managers, enhancing cooperation to achieve the company's organization interests. Besides, interpersonal trust engages internal cohesiveness in the company's organization with identity awareness (WOOLCOCK-NARAYAN, 2000). The manager also takes a beneficial impact from interpersonal trust by governing the labors efficiently to support the company's purposes (LYU-JI, 2020).

The association between trust in government and interpersonal trust within the company relates to the network perspective's social capital theory. The insight mentioned before emphasizes the

substantial connection in the vertical or horizontal relationship between the company's constituents and provides them with the characteristics awareness and the collective objectives.

In the business-to-business (B2B) relationship, the company cooperates with partners to support the main business. The company connects to the providers to access notable inputs. The firm also performs collaboration with other similar companies to supply competitive products or services. The process of searching partners, making the agreement, managing the performance, and evaluating the cooperation causes an additional cost. The manager, acting as the company's representation, conducts the process through the interacting process with other directors' affiliates. The frequent interaction between the manager and business partners contributes to the level of trust between them. The frequent interaction between them contributes to the development of inter-organizational trust. ZAHEER ET AL. (1998) assumed the process as the micro-macro inter-organizational network, in which interpersonal trust was a significant phase towards the development of inter-organizational trust. LAAN ET AL. (2012) also supported that good interpersonal relation and trust between the managers and their business partners developed significantly inter-organizational trust. Interpersonal trust established inter-organizational trust as part of the connection in business to business (B2B) (BROCKMAN ET AL., 2017). Connection in B2B represents social capital in a synergy idea to perform business goals regarding the mutual benefit prospects. Two different organizations create reciprocal connections and networks that reflect social capital, which link to business performance.

However, the companies and their partners suffer vulnerabilities and risk probabilities in B2B relationship. They are captivated in infringement of agreement, and opportunism behaviors (MAYER ET AL., 1995). Consequently, they bear a high cost. To avoid the liabilities and risks, they can implement control system and trust (WILLIAMSON, 1993B). Trust between the companies and business partners provide an economic guarantee to minimize opportunistic behavior, in turn, trust enhances business performance (BARNEY-HANSEN, 1994; GAUR ET AL., 2011; SEPPÄNEN ET AL., 2007). The relationship between trust, risk, and business performance relates to transaction cost economics.

Furthermore, some government's policies support the connection of B2B through fair public administration. Consequently, the business communities trust in government (KIKUCHI, 2008). The synergy between the government and business societies denotes complementarity and embeddedness. The complementarity illustrates that the government abundantly supports connections among the business communities in legal structures that protect the business community's rights. The embeddedness reveals the degree of the bond between the public bureaucrats and the firms (WOOLCOCK-NARAYAN, 2000).

This study raised a pursuit of how the combined effect of trust in government and inter-organizational trust comprising interpersonal trust. This question derived from the research gap in which an elusive connection between trust and business performance. Some scholars, for instance, DAVIS ET AL. (2000), JING ET AL. (2014), OLÁH ET AL. (2017), and ALLEN ET AL. (2018), disclosed the positive connection interpersonal trust. On the contrary, ZAHEER ET AL. (1998) investigated that no association between interpersonal trust and business performance. Thus, this research proposed whether trust in government strengthened interpersonal trust and trust between the companies and business associates.

Long-term relationship and frequent interaction between the companies and their partners develop trust among them, then provide possibilities of knowledge exchange and access of substantial resources, which affect innovation prospects (BIEN ET AL., 2014). In brief, inter-organizational trust enhance innovation. However, the direction of trust in business partner remains in dispute. LANDRY ET AL. (2002) investigated that no association between trust and innovation. Meanwhile, MOLINA-MORALES ET AL. (2011) revealed that the level of extreme trust diminish innovation.

In the innovation perspective, combining technical theories and social network, the companies perform innovation probabilities by emphasizing important network and knowledge strategy rather than specialized machines and technological networks. Then the companies require knowledge-based innovation from various types of knowledge owned by different business partners. Thus, social capital in the networks and communities suits a vital aspect to build innovation, develops methods and production systems to expand innovation. Definitively, the high level of trust between the company and its business partners induces innovation possibilities. Networks develop as actors cultivate reliable and effective communication channels across organizational boundaries (LANDRY ET AL., 2002). Then this study pursued an inquiry about whether inter-organizational trust stimulated innovation.

Furthermore, innovation possibilities improve the competitiveness of products or services in the tight market. The companies have invested in the assets and capital to perform innovation. Consequently, the companies concentrate to develop innovation of their products or services and rely on resource-dependence of external environments and valuable resources belonging to customers (CHRISTENSEN ET AL., 2018). Thus, the central question emerges whether the companies obtain profit regarding their assets and capital in a disruptive era. Business performance's core domain refers to financial performance, which reflects profitability as one measure (VENKATRAMAN-RAMANUJAM, 1986; MARTIN ET AL., 2016). Besides, profitability illustrates the efficiency of the company obtaining profit while minimizing total

cost and transaction cost. The strategy of reducing transaction cost drives the manager governing the internal company and controlling business partners. Trust performs as an economic guarantee in the governance process both in the company's organization and business relationship (WILLIAMSON, 1993B). Finally, conducive internal company and trusted cooperation provide opportunities obtaining profitability. Consequently, this research emerged an inquiry on whether inter-organizational trust enhanced financial performance.

This study determined three types of trust, namely institutional trust, interpersonal trust, and inter-organizational trust. All trust represents social capital. Then the impact of trust in the organization and network illustrates the transaction cost economics. Trust develops innovation, in turn, enhances profitability representing financial performance. On consequence, plausible and useful theories behind those previous topics are social capital, transaction cost, and financial performance. This study argued that trust was the representation of the social capital concept. The prominent direction of trust as social capital enhancing business performance is framed with the transaction cost perspective. The firm generates profit and exchanges cost when producing products and services. The company pays attention to internal and external exchange cost when plans to enhance production. Indeed, the company bear the high cost from the internal and external exchanges, which refer to the transaction cost.

Additionally, the company develops trust between the managers and workers to reduce monitoring and controlling cost as one source of transaction cost. Later, the company also suffers external transaction cost, such as searching for suppliers, negotiating the price, and making the contract with the business partners. Trust has a prominent role as a cost-effective safeguard to maintain mutual dependency with a partner. The previous probes relate to trust, innovation, and financial performance. The high level of trust between the company and its business partners induces innovation possibilities. Trusted networks improve reliable and effective communication channels across organizational boundaries, indicating integrative trust implementation to reduce transaction cost. The company enhances the profit when the total sales increase while total cost reduced.

1.2 Objectives of the research

This study had three purposes deriving from the previous discussion of research topics. First was to analyze the direction of institutional trust to interpersonal trust and inter-organizational trust. Second, this study observed the effect of interpersonal trust to empower inter-organizational trust. The final goal was to examine the direction of inter-organizational trust to financial performance through innovation as a mediating variable.

1.3 Research questions

This research investigated several questions related to the primary purposes. This study raised three questions regarding the connection of institutional trust, interpersonal trust, inter-organizational trust, innovation, and business performance. The particulars of the research questions were:

1. How prominent is the synergy of interaction concerning institutional trust involving interpersonal trust to enhance inter-organizational trust?
2. How influential role is inter-organizational trust stimulating innovation?
3. How important direction is inter-organizational trust improving financial performance?

1.4 Research hypotheses

This study proposed six hypotheses regarding the previous research questions. The process of developing hypotheses was described in chapter two. This research proposed the hypotheses below.

1. Institutional trust is positively related to empowering interpersonal trust.
2. Institutional trust is positively related to enhancing trust in partners.
3. Interpersonal trust has a positive effect on inter-organizational trust.
4. Inter-organizational trust has a definite direction to financial performance.
5. The higher level of trust in a partner may ignite innovation.
6. Innovation may enhance financial performance.

1.5 Structure of the thesis

This study comprised six chapters. The introduction part illustrated the Information and Communication Technology (ICT) sector's prominent role in supporting the other sectors in Hungary's economy. This section also described Information and Communication Technology (ICT) companies absorb labors, obtain profit, and suffer competitive pressure in the market. ICT companies sustain in the competitive market through sustaining profit, achieving internal efficiency, and developing a network. The companies develop internal trust and require trust in the business network and collaboration. The research argued that the connection between trust and business performance remains debatable. Then this study proposed integrative trust enhancing the company performance.

The research topics section denoted the related topics in postulates relating connection trust in government and trust in business involving interpersonal trust. This section introduced types of trust in this research representing the role of social capital in the business. Trust in government

enhances interpersonal trust and trust in the business relationship. Trust in business boosts the effective knowledge exchange to stimulate innovation possibilities. The relationship between trust and business performance refers to the transaction cost perspective. This section also provided the research gaps and research questions, which this study contributed to the novel insights. This section additionally delivered the structure and described the research approach to answer these research purposes.

The literature review part summarized the social capital theory, transaction cost, innovation perspective, financial performance, previous studies regarding the research topic, and hypotheses development. The review of social capital described the development of insights from previous scholars in the various scientific fields, types of perspectives, characteristics of social capital, and connection to the business network. This part illustrated transaction cost conception in consolidating business organization and interests in exchange of goods or services. This section likewise depicted the governance approach to manage collaboration and minimizing transaction cost. Then, there was a summary explaining trust types in business, which used as terms in this study. This part also provided innovation perspectives and financial performance measurements. This study similarly recapped previous studies' findings to elaborate on the research gap, support the observed variables, and their relationship. Finally, this study provided hypotheses development which tested in the discussion chapter.

Chapter three explained the methodological approach. This chapter illustrated the population and sample of ICT companies located in Hungary, then defined the measured variables and operational definition. This section denoted the Partial Least Square Structural Equation Model (PLS-SEM) as instrument testing hypotheses, then also explained the method of assessing the proposed model. Next, the process investigated the significant indicators of latent variables, which provided the fit output.

Chapter four investigated the respondents' characteristics, and companies profile, then evaluated the level of trust, innovation, and financial performance. This part additionally examined the outer loading factors, and the average variance explained. Outer loading estimates the relationship of the indicators and determines absolute contribution to designate the latent variables. The latter figure describes the convergent validity of the indicators. Then this study evaluated the constructs and structural model in this section as well. Hypotheses testing, substantive impact, types of mediating variables also persist in the discussion part, supported the suggestion for theory and practices.

The conclusion part briefly discussed this study's added value to the existing knowledge and pointed out the theoretical contributions. This section also contained a comprehensive

discussion of this study's insights, a brief discussion of its limitations, and an outlook on future research opportunities. The conclusion section as well emphasized the results compared to the recent literature review.

The final section summed up novel findings connected to the objectives and hypotheses of aims and hypotheses of this study. This research additionally presented the summary, references, directory of publications, list of tables, list of figures, and the questionnaire.

1.6 Research approach

This study started reviewing the previous manuscripts that examine the direction of institutional trust, interpersonal trust, intra-organizational trust, business performance, and the relationship of trust and innovation. The significant mapping of the previous scientific articles revealed the research gap and theoretical framework for supporting this study's model. Besides, the literature review also inspired the observed variables and their measurements and verified the hypotheses developments. The literature summary likewise supported in constructing the questionnaire. Before submitting the surveys, this study evaluated the samples from the population involving ICT companies in Hungary. Then this study examined the validity and reliability of the questionnaire. After that, this research submitted the surveys to the respondents and then obtained 149 complete questionnaires. This research analyzed the outliers; thus, this study utilizes 103 samples due to 46 outliers. This study similarly utilized a financial statement to measure financial performance.

The next step was evaluating and analyzing the data. This study implemented a Partial Least Square Structural Equation Model (PLS-SEM) to analysis the observed variables. This study examined the proposed model three times to obtain prominent indicators of each latent variable by evaluating the value of each indicator's loading factor considered significant factors. Besides checking the loading factor, this research also evaluated the Average Variance Extracted (AVE) of the indicators. This study included the prominent indicators having loading factors above 0.7 and AVE with 0.5 as standard value to perform the ultimate analysis.

This study then described the respondents' profile and characteristics of companies to provide comprehensive descriptions of the surveyed objects. This study also examined the level of trust, innovation, and financial performance of the observed firms and scrutinized the constructs measurement and the structural model before testing the hypotheses. Besides, this research examined the size impact, types of mediating variables. Finally, this research concluded the findings compared with the results of previous manuscripts and literature reviews. Figure 2 shows the sequence approach to this study.

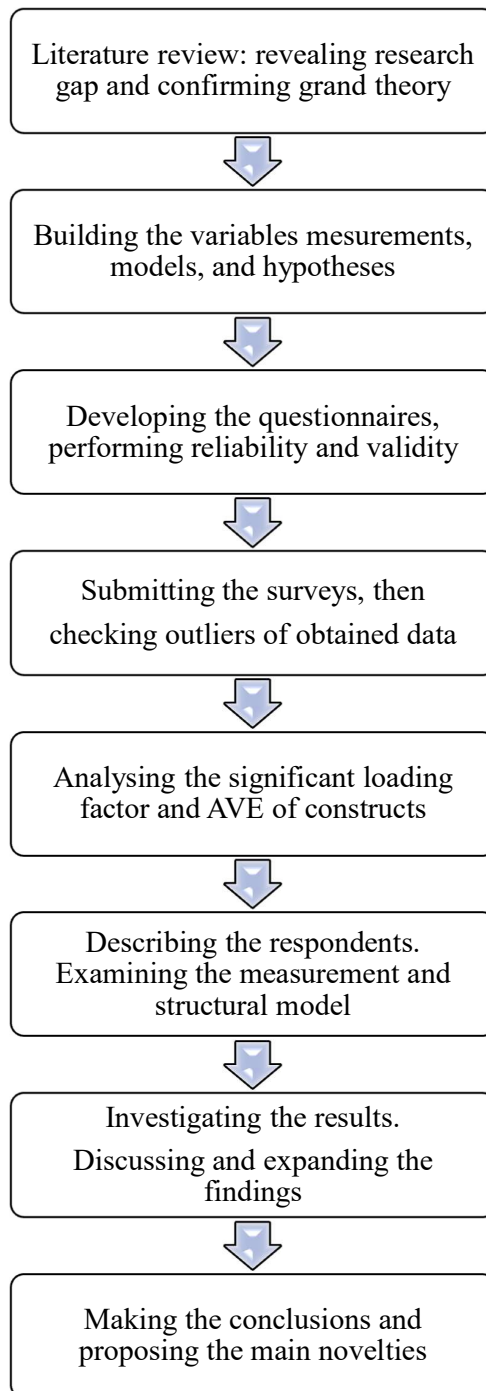


Figure 2. Research approach

Source: Own compilation (2020)

2. LITERATURE REVIEW

This study briefly reviewed the perspective and previous studies to address integrative trust, innovation, and financial performance. Some of the manuscripts presented in this literature review had been published in scientific journals. First, this research explored the basic theory from social capital connected to transaction cost and types of various trust. Then this analysis paid particular attention to discuss the direction between institutional trust, interpersonal trust and inter-organizational trust. Finally, this research also reviewed inter-organizational trust's direction to financial performance with innovation as a mediating variable to support hypotheses in this study.

2.1 Social capital

Social capital discussion started from the initial development of social capital, then describing the characteristics and implementation in organization and networks. Social capital emerged in the scientific debate in 1916. Scholars argue that social capital indicates the tangible substances in regular natural life, for instance, goodwill, fellowship, sympathy, and social interaction between the persons and families who constitute a social organization. One person communicates with his/her neighbor, then, they together with other neighbors, as a result, they will collect social capital, which fulfils his/her social requirements, and correspondingly provide a social perspective necessary to improve livelihood circumstances for the entire society (WOOLCOCK-NARAYAN, 2000). From 1973 until 1993, some scholars additionally clarified the social capital concept. Firstly, GRANOVETTER (1973) presented the prominence of sympathy connecting to links with particular people acquiring approach to valuable information and assets in their networks. LOURY (1977) then continued to describe that social capital involves specific public attributes that allow or restrict entities' improvement.

Moreover, BOURDIEU (1983) maintained that social capital is the participation of entities in a network as established affiliations that offers a way in specific or prospective assets. Furthermore, COLEMAN (1988) asserted that social capital denotes the features of social structures that simplify activities between parties. At the same time, PUTNAM (1993) recognized social capital as characteristics of the social corporation, for instances, trust, norms of mutuality, and connections of community commitment that made a possible organized achievement, and in sequence, build communities and organizations more efficient (FULKERSON-THOMPSON, 2008).

As the development of social capital's insight elapsed during several decades. Some scholars then started to reinvent social capital from different perspectives of science, namely Sociology

in the 1950s, Exchange Theory, Urban Scholar in 1960s, and the economy in the 1970s. Previous scholars from those different disciplines did not reveal social capital directly in their studies. However, they denoted a similar term of social capital regarding the strength and importance of society links (WOOLCOCK-NARAYAN, 2000). Then, PUTNAM (1995) put a seminal thought of social capital in his manuscript, which denotes social capital characterized by social life-linkages, norms, and trust, which simplifies individuals' actions more successfully the common goals. The magnitude of norms, networks, and trust connects prominent organizations and bridges main social differences, then improves collaboration to serve corporations with distinct interests to be broadly accepted. Expanding Putnam's study, WOOLCOCK-NARAYAN (2000) classified social capital into four different views, namely communitarian, networks, institutional, and synergy perspective.

Communitarian insight connects social capital among members from local organizations, clubs, associations, and public groups. The number and concentration of these group are numerous because of making social capital naturally better. Social capital's existence has a positive influence on a community's prosperity. Then, the network perspective provides the benefit and cost to the community. Here, social capital emphasizes the importance of vertical association or horizontal between the members within the organization. Social capital also connects the organization with others. This view highlights the substantial extent of intra-community bound would provide the community with identity sense and the common goal. The third perspective of social capital denotes institutional view. This view represents that social capital in the vital community network and civil society emerges from political, legal, and institutional surroundings. Institutional view perceives social capital as a conditional variable. Indeed, this concept denotes that social groups' level performs within their collective interest due to the formal institution's capacity where they inhabit. It also emphasizes that governments and firms' performance relies on their internal consistency, integrity, expertise, and external assessment from civic society. Then, the final perspective of social capital refers to the synergy approach. This idea attempts to combine the convincing study arising from the networks and institutional foundations. The synergy between the government and organizations relate to complementarity and embeddedness. Complementarity regards mutually supportive connections between public and private parties and is framed in legal structures that protect the association's rights. For instance, through chambers of commerce, the government facilitates and supports business between the companies and their partners. Embeddedness indicates the type and degree of the bonds associating with companies and public bureaucrats (WOOLCOCK-NARAYAN, 2000).

Moreover, some scholars also defined social capital's different conceptions in three categorized sights regarding resource, networking, and purpose. Based on the resource perspective, social capital refers to a resource embedded in social networks. The next sight illustrates that social capital as several bond systems that enable activities among the individuals and organizations can generate value. Finally, social capital refers to its purpose. Social capital can facilitate people and parties in social organization to coordinate and cooperate to achieve collective advantage (LYU-JI, 2020).

This study supported the social capital in a synergy perspective as the central concept because the social capital emerges from the frequent relationship between the employees and the managers within a conducive organization and work environment. They engage in the company's organization to achieve a shared objective. Besides, the company connects to business partners to perform business goals regarding the mutual agreement. The government and other public institutions support the internal and external social capital bounded. The perspective of social capital also inspires this study in terms of institutional dan synergy. The institutional view of social capital illustrates government and other institutions' performance would create interpersonal trust and intra-organizational trust. This view also denotes that the company's organization and policies develop internal trust. Then synergy view illustrates the mutual connections and networks between the companies and business partners as social capital, making it simpler to perform activities organized more effectively to accomplish the collective objectives.

Moreover, social capital gives the company advantages to access prominent assets and mobilize them on purpose activities (TSAI ET AL., 2013). Social capital influences the level of social cohesion, horizontal relations, and the nature of relationships (PRATONO, 2018). As a result, the company in the network or linkage provides cohesiveness with the business partners and enhance the production capacity for mutual performance (SUSENO-RATTEN, 2007). Social capital enhances a competitive advantage to the firms and improves firm performance (LYU-JI, 2020).

Likewise, this study appointed social capital theory with a two-perspective consisting of ego-centric within network and socio-centric in purpose view. The ego-centric in-network viewpoint describes the employee or manager as a principal factor who give and take resources from the company's organization (ADLER-KWON, 2002) in terms of social interactions, shared norms, and trust (TSAI ET AL., 2013). In the social relationship perspective, social capital holds a social connection between employees and managers more closely and motivates them to perform value and collective goals in the company. Meanwhile, social capital also

describes shared norms as rules and outlooks that explain how the workers and supervisors will behave within the company. Then, trust among the directors and the staff increases their social interactions, thus intense relationship. As a result, interpersonal trust alters their successive behaviors in the company (TSAI ET AL., 2013).

Furthermore, this research counted on social capital as socio-centric in purpose view. This approach was in line with the following scholars. For instance, PUTNAM (1995) emphasized that social capital was not only an individualistic characteristic but referred to associations between parties such as social networks and the norm of trade-off and trustworthiness (BIJL, 2011) that facilitated coordination and collaboration for getting advantages (TSAI ET AL., 2013). Social capital engages the company and the partners closely in the business relationship, urges them to cooperate through a collective purpose to acquire mutual benefits (TSAI ET AL., 2013). Next, social capital simplifies the firms to access the partners' resources and competences and exchange resources within the bounded network (INKPEN-TSANG, 2005).

There were conflicting conclusions in the study regarding the direction of social capital on performance. Studies showed that an improvement in company performance could be influenced by social capital (BATJARGAL, 2003; TANG-ZHOU, 2014; ZHANG ET AL., 2015). However, some investigations suggest that social capital does not cause financial performance either negatively affecting company performance (LI ET AL., 2012; PARK-LUO, 2001). In this review, this study supported that social capital improved financial performance. Most studies demonstrated that companies with the capability to develop trust and network enhanced business performance (COOKE-WILLS, 1999; SEPPÄNEN ET AL., 2007; MOELLER, 2009; GAUR ET AL., 2011; SHAHMEHR ET AL., 2015; CYGLER-SROKA, 2017; PRATONO, 2018; AYU ET AL., 2020). Those previous results, emphasizing the positive relationship between social capital and financial performance, were consistent with this research's framework. Some scholars proved the links between social factors and performance and social capital, motivation, and success of business continuity (WIROTO-TAAN, 2019). The concept of socio-centric enhances a cooperative engagement between the company and business partners. Accepting social capital in the collaboration provides the opportunity to obtain an approach to excellent assets sources (PRATONO, 2018). This research defined trust and network as the proxy of social capital.

2.2 Transaction cost

Adam Smith provided the earliest conception of the organization model declared that market transactions play the most efficient approach to organize economic activities. Later, the theory

emerges the central questions: why do companies even subsist? If markets could provide the most efficient method to control. When companies persist, how managers select which activities to control internal organizations while using markets for others? Then Coase provided a better approach through the transaction cost; he explained that organizing within markets engages specific costs (CROOK ET AL., 2013). Furthermore, WILLIAMSON (1993B) also initiated transaction cost economics (TCE) based on Coase's visions. TCE emphasizes transactions in which exchange of goods or services in the internal organization and company's networks.

Coase explained that the firm governed internal and external organization by markets and hierarchies. Coase claimed that the company might choose among markets and hierarchies by considering the differentiation in transaction costs. Despite the success of his work in contending transaction cost. Nevertheless, the firm had an obstacle to measure precisely transaction costs. This problem was undertaken by Williamson, who resolved the operationalization obstruction of transaction cost theory (GEYSKENS ET AL., 2006). WILLIAMSON (1993B) argued that the company could manage transaction cost through three structural alternatives, such as markets, hybrids, or hierarchies. The appropriate governance to minimize transaction cost within the company could rely on hierarchies. Firms implement the option to monitor and direct internal behavior and across multiple firms. In the internal, the manager can control the employees to support manufacture. Meanwhile, the company manages the business partners to perform contract agreements (CROOK ET AL., 2013). Indeed, WILLIAMSON (1993B) postulated that the company generates relative efficiency in alternative governance structures by associating with recognizable components of transactions: asset specificity, uncertainty, and transaction frequency (GEYSKENS ET AL., 2006).

Asset specificity describes the degree of distinctive investment supporting a transaction. It represents the leading source in TCE. When the assets develop more distinctive, they grow into more exclusive to reorganize within the internal organization with an efficient approach. Then, some scholars have examined three forms of uncertainty in terms of volume, technological, and behavioral uncertainty. As the following explanation, unpredictable forthcoming demand creates volume uncertainty. The indefinite development of future developing technology also generates unpredictability. Furthermore, behaviors uncertainty occurs; hence, the managers cannot assess the internal condition with the feature of activities due to complicated technology or unnoticed observation. The last attribute of transaction refers to the frequency of transaction (WILLIAMSON, 1988; CROOK ET AL., 2013).

This research relied on transaction cost to develop proposed hypotheses in the internal organization and business cooperation group. Firstly, the firm governs internal organization to

support manufacturing which bears transaction cost. The company suffers an excessive transaction cost when controlling the employees' performances. In compliance with behavioral uncertainty, the managers are not able to monitor the behaviors of the employees within the workplace persistently. As a result, the managers should choose to monitor employees' performance or adjust the internal shifting. Then the company also should adapt to the development of technology to support the production. Secondly, transaction cost relates to the governance of contractual relations across the companies and business networks. Managers also should decide on the optional activities to reduce transaction costs which arise from choosing competent business partners, discussing agreements, observing accomplishment, and revising fluctuating situations (WILLIAMSON, 1988; CROOK ET AL., 2013).

Moreover, governance does not function in separation from the institutional environment. Then the unit analysis of governance consists of the institutional environment and individual features. The institutions define the game rules; in this context, the various institutions perform governance to control the business associates. Meanwhile, the company also induces the business partners to perform the agreement. Moreover, in the internal company, the manager controls the workers to behave and perform collectively for achieving the company's goals (WILLIAMSON, 1993B). For instance, the various institutions, the government and other public agencies support the underlying mechanism of trust governing the business partners.

This section described the consideration from the company's view when the firm plans to expand the production by deciding to perform by itself or cooperating with the business partners. In the internal company, the company generates profit and exchange costs when it produces products and services. The firm plans to enhance production by considering internal and external exchange cost. The company spends a high cost from the internal and external exchanges, which refer to the transaction cost (TC). In the internal organization, the company plans to expand the production by considering internal human resources' capability. When managers harmonize each activity of employees coherent to the organizational option that diminishes transaction costs; as a result, it improves firm performance. The previous process is defined as a discriminating alignment (WILLIAMSON, 1988; CROOK ET AL., 2013). For instance, the company implements a specialized investment to develop human capitals. Therefore, the employees learn and develop competencies to support targeted company production.

Additionally, the manager controls and monitors the employees to perform the work performance. Otherwise, the manager develops interpersonal trust in an internal company to reduce controlling and monitoring cost (DAVIS ET AL., 2000; DYER-CHU, 2003). As a result,

interpersonal trust enhances work performance (SAKO, 1992; FUKUYAMA, 1995; BUGDOL, 2013). Besides, the company decides to expand its production when the internal exchange cost is cheaper than the external exchange cost. Whereas the internal exchange cost exceeds the external exchange cost, the company plans to expand the production by implementing collaboration with the business partners. Hence, the company considers the external transaction cost, such as searching for suppliers, negotiating the price, and making the contract. Besides, the company governs the partners to perform the agreement (CHAO, 2011; BAYE-PRINCE, 2017).

Transaction cost in term of external exchange cost is efficiently reduced within a vertical integration and or market governance. The company could implement various vertical integration, such as implement assets specificity, encounter uncertainty, and repeat transaction frequently. The activities, as mentioned above, escalate the extent of the transaction cost. Furthermore, the company performs a collaboration with the business partners by implementing a relationship-specific exchange. This type of exchange occurs when the parties have made a specialized investment, for examples site-specificity, physical-asset specificity, dedicated assets, and human capital. Dedicated assets represent the general investment made by the company to exchange with a particular partner. The dedicated asset describes that the company has collaborated with the partners to interchange their assets to support production (WILLIAMSON, 1993A).

To support the collaboration, the company and its partners could make a contract. The company trusts the partners to perform the agreement; as a result, and the firm could minimize the level of the external transaction cost (BAYE-PRINCE, 2017). The company should cooperate with the partner because they would support the production process in collaboration with the partners (CHAO, 2011). Other consideration, the company reduces the partner's opportunistic behavior by implementing trust (ZAHEER-VENKATRAMAN, 1995). Indeed, trust has a prominent role as a cost-effective safeguard to maintain mutual dependency with the business partner (WILLIAMSON, 1993A). This guaranteed scheme avoids the risk, which results in additional cost and contra-productive as agreed in the contract (MUGARURA, 2016). If the company trusts its partners, it benefits from minimizing cost when the partners do not perform the agreement. As a consequence, the company can mitigate the risk within the trust in the partners. In summary, the company can mitigate the risk within the trust in the partners. Trust as an adequate safeguard could reduce the transaction cost (WILLIAMSON, 1993A).

2.3 Types of trust

PUTNAM (1995) explained that social capital is portrayed by social life-linkages, norms, and trust. Accordingly, this study focuses on illustrating trust concepts, types of trust, and the definition. This study started by explaining the concept of trust regarding previous scholars as follow.

LEWICKI-BUNKER (1995) classified trust as a personal representative of relational connections and an organized experience. Some scholars argued a different definition of trust in the perspective of micro-organizational behavior to strategy or economics. Initially, the psychologist had described trust as an expectancy of social transactions, concentrating on the contextual features which develop or constrain the improvement and continuance of confidence. Then, economics and sociology academics also contributed that institutions and incentives minimized the uncertainty and concern related to contracts between unfamiliar parties in trust (BHATTACHARYA ET AL., 1998). The previous different perspectives observed trust in terms of enrichment and behavior. Some scholars pointed out vulnerability as the central element of trust. MAYER ET AL. (1995) defined trust as the willingness of a trustor in a vulnerable condition due to the trustee's activities. The trustee was probably to accomplish a specific accomplishment crucial to the trustor; regardless, the trustor could supervise or regulate that other party.

Then from behaviors aspect, ROUSSEAU ET AL. (1998) described trust as a psychological statement that consisted of the purpose to receive vulnerabilities relating to the positive probabilities of the potentials or activities of another. The previous description was coherent with the insights from SABEL (1993) and BHATTACHARYA ET AL. (1998). Economists view trust respecting from the competence organize agreements or incentives and penalties; as a result, the parties performed in a specific behavior. The consideration raises that the parties are nearly trustworthy, but they are probably not (BHATTACHARYA ET AL., 1998). The economists' perspective was coherent with the findings of ZAHEER ET AL. (1998) who described comprehensively trust as the expectation that a party which relied on would accomplish responsibilities, perform in an expected etiquette, avoid taking opportunism, and discuss somewhat the risk possibility. Then economics scholars considered trust in the cost and benefits analysis. For instance, previous academics developed the economic model of trust as a relatively symbolic approach. Trust provides a unique perspective, as a fundamental notion and more a label describing an equilibrium behavioral outcome not to cheat the partners (BHATTACHARYA ET AL., 1998).

Trust escalates in anticipation of the primary exchange of vulnerabilities in the social network and economic governance mechanisms. When the parties trust each other, they acquire advantages in maintaining ethics, principles, and standards of behaviors adopted by all the organizations to the exchange. Trust is better explained collectively in economic and psychological representations than separately. These views are coherent that trust provides a governance approach and perceive character (BARNEY-HANSEN, 1994). Furthermore, LEWICKI-BUNKER (1995) defined trust concerning source from the expectations that emerge. They described trust as a confident statement concerning optimistic anticipations on intentions relating to risky conditions. The anticipations related to the incentives or penalties that directed the parties' manners, predict others' activities, or internalize the individuals' wants and purposes (BHATTACHARYA ET AL., 1998).

BHATTACHARYA ET AL. (1998) posited the ideas above to describe trust in terms of the micro (individual) and macro (firm and institutional) frameworks. They viewed several themes. Firstly, trust subsists in unpredictability and uncertain environment. Then, trust indicates the feature of probability. The third and fourth features of trust refer to its significance and potency. Fifth sight, any description of trust must comprise the environment of sympathy. Specifically, it is a condition and individual precise. The last sight, trust is good. Thus, BHATTACHARYA ET AL. (1998) explained that the trustor had a positive or negative expectation when the trustee performed or not accomplished future activities. MAYER ET AL. (1995) also had a similar idea that the company expected to believe their partners would perform the promised activities without direct monitoring of the activities. This definition implies that trust is pertinent to a bond with another particular party who is noticed to perform and respond with partiality concerning the trustor. The previous definition adds vulnerability as a critical consequence. Exposure of liability provides consequential loss; as a result, it creates riskiness to other parties. Indeed, trust is not only undertaking risk by itself, but rather, it is a willingness to accept risk.

This research supported to trust in views of social relationship and economic implication. For instance, in social behavior within the company, employees could cooperate with their colleagues or supervisors due to interpersonal trust or influential manager. The pivotal employees or supervisors trust each other, but their actions are vulnerable to perceive risk, such as unfinished assignments. To reduce that, the managers can monitor and control or perform punishment to the workers. In term of economic impact, interpersonal trust between the workers and the managers within the company enhances targeted job performance (MAYER ET AL., 1995). In the business network context, trust between the company and business partners guarantees to perform the agreements. However, each party suffers exposure vulnerabilities and

be captivated in risk probability. The vulnerabilities and risks lead to the cost accepted by each party (MAYER ET AL., 1995). Control systems are one alternative method for anticipating risk in relationships (SCHOORMAN ET AL., 2007). When the company and business partner trust each other, trust performs as an assurance minimize the constraint for precious and proper assurance such as complicated contract and thorough checking. They behave to complete the agreements and avoid opportunistic activities; as a result, they will boost business performance (BARNEY-HANSEN, 1994; SEPPÄNEN ET AL., 2007; GAUR ET AL., 2011).

This part then explained the various types of trust and its determinants. FULMER-GELFAND (2012) differentiated trust at a level and a referent perspective. The former type described trust was collectively shared by individuals. Meanwhile, the latter refers trust is implemented through interpersonal, team and organizational perspective. Regarding the trust at a referent, trust also supports the organizational operation in the interpersonal relationships and the inter-organizational network (PORTA ET AL., 1996; GALFORD-DRAPEAU, 2003; DOVEY, 2009). The concept, as mentioned before, was coherent with scholars as follow. Some researchers classified trust into three types: interpersonal trust, intra-organizational trust (ZAHEER ET AL., 1998), and institutional trust (PUTNAM, 1995). Meanwhile, SAKO (1992) divided the three majors of trust based on the predictability of mutual behavior into three categories: competence trust, contractual trust, and goodwill trust. Here, this research considered utilizing the types of trust proposed by PUTNAM (1995) and ZAHEER ET AL. (1998).

At this time, this research described inter-personal trust, intra-organizational trust, and institutional trust relied on previous scholars. This research proposed inter-personal trust refers to an employee's willingness to trust in managers (ZAHEER ET AL., 1998; MAYER-DAVIS, 1999; DIRKS-SKARLICKI, 2009) and company's organization (VANHALA-DIETZ, 2015; AUDENAERT ET AL., 2016). The employees expect that the manager will take specific decisions that are important to employees. The managers also trust in the workers without monitoring and controlling them every time (DIRKS-SKARLICKI, 2009; GUINOT-CHIVA, 2019). Trust in managers indicates that the employees believe that the manager can apply a high level of skill to solve a particular problem. Besides, the manager encourages the worker to accomplish their jobs (DAVIS ET AL., 2000). The internal management also stimulates the employee's belief because the company's organization operates competently, concerns staff welfare, and handles stakeholders honestly and fairly (VANHALA-DIETZ, 2015).

Then, this study argued that inter-organizational trust represents the declaration of confidence between the company and the business partners, clients and contractors, and the network. The

company believes that they would comply with the promises (SAKO, 1992; SAKO-HELPER, 1998; ZAHEER ET AL., 1998; BROWER ET AL., 2009), behave or respond in a predictable and mutually acceptable manner (PORTA ET AL., 1996; CASTALDO ET AL., 2010).

Finally, the concept of institutional trust in this study indicated the company's trust in the government (PUTNAM, 1995; BURSIA ET AL., 2015; RIM-DONG, 2018) and various institutions (ASKVIK-JAMIL, 2013). The company believes that government and public institutions could perform public services without pressure from politicians. The government and public institutions provide adequate public services to support corporate activities because they have the capabilities of being professional and expertise (PUTNAM, 1995; PORTA ET AL., 1996; GOERGEN ET AL., 2013; RIM-DONG, 2018).

All the types of trust indicate the declaration of confidence characterized in many forms such as cognitive, behavioral, and emotional expectation. All categories of trust also consist of three components: reliability, predictability, and fairness. The differences are the referent and origin of trust in the point of view.

MCALLISTER (1995) examined that consistent colleague responsibility of accomplishment significantly influenced inter-personal trust from a cognitive base factor. He also revealed that frequent relations, partner affiliates connection act, and social responsibility manners of associate subordinate fostered interpersonal trust in the perspective of affective-based trust. Next, COSTIGAN ET AL. (1998) also exposed correspondingly that dyadic connection, enthusiasm, confidence, manners personal initiative, career promotion system and objective assessment, and adequate remuneration in work reward determined interpersonal trust in the perspective of affective-based trust. Some scholars previously investigated the determinants of inter-organizational trust, namely regularity and duration of historical interactions (GULATI-SINGH, 1998; DYER-CHU, 2000), experience and relationship history (GULATI, 1995), the expectancy of mutual benefit (GULATI ET AL., 1994), knowledge sharing (AULAKH ET AL., 1996), portioned equality, and associate likeness (ROBSON ET AL., 2008).

2.4 Innovation and Disruptive era

Then this part discussed innovation in various theories background then defining the innovation to support the description of the variable. This research summarized the innovation concept from previously published manuscripts.

The concept of innovation has developed from a sole experience from knowledge developed internal company to a collaborative process through the interactions and exchanges of knowledge engaging companies and their partners in interdependence nature. The first initial

concept of innovation comes from the engineering theory. Regarding this theory, innovation opportunities describe the prospects to enhance the products or the production process (LANDRY ET AL., 2002; LEE ET AL., 2015). Innovation prospects are uncovered in the implementation of research findings. The determinants of innovation come from basic research and built-up research and development. This theory explains that the company could innovate by combining tangible forms of capital, namely, technology, physic, labors, and finance (LANDRY ET AL., 2002).

The subsequent concept comes along with sources of recommendations for innovation from the market attraction. The market pull theory reveals that the company can perform innovation by combining tangible forms of capital and intangible factor: data concerning markets. The market pull theory was famous in the 1960s. The chain-link theory of innovation emphasizes the focal attention to connecting the information through the linkages between the company and its customers and suppliers (LANDRY ET AL., 2002). The company ignites innovation by organizing capital sources with prominent data about customers and suppliers as information for innovation opportunities. Therefore, the company customizes the products related to the demand of the customers. The company also creates the uniqueness of the products to serve distinct customers (JEAN ET AL., 2014). The chain link of market pull theory then was introduced in the 1980s. The different concept explores the innovation prospects can be undertaken under the label systems of innovation. Some scholars supporting the technological network theory suppose that the companies develop innovation correlated with various partners within networks of cooperation and transfer of critical information. This concept highlights the worth of information sources from external companies' stakeholders such as clients, suppliers, consultants, government agencies, government laboratories, university research, and others. The company should sustain and interact intensively with external sources of critical information to support manufacturing. As an important note, the development and improvement of products and processes must simultaneously match technical feasibility, market feasibility, and network feasibility. The exchange of information is also intensively discussed in forms of cooperation, network, and partnership regarding the highlight of the importance of technological networks (LANDRY ET AL., 2002).

The last concept combines two classical ideas from engineering and technical theories and a new insight into knowledge. Knowledge has a prominent production factor as the source of innovation. Knowledge accumulation and intense communication of technology develop available knowledge promptly in the creation scale. The social network theory reveals that the company has innovation opportunities by emphasizing network and knowledge's strategic

importance, rather than specialized machines, and technological networks. The pressure challenge to transform information into knowledge is the critical development from the technological network concept to the social network insight. In this context, the information relates to the development or improvement of products or production process (LANDRY ET AL., 2002). The company develop methods and new production system to develop innovation opportunities rather than the rivals (MAURER, 2010; MOLINA-MORALES ET AL., 2011). Besides, the company initiates innovative work methods to support production (SANKOWSKA, 2013).

The company requires knowledge-based innovation coming from various types of knowledge owned by different categories of business partners. Networks and communities characterize focal knowledge, and social capital suits a vital aspect to recognize innovation. Social capital facilitates to diminish opportunism, encourage reliable information to be shared, initiate contracts to be accomplished, simplify the corporates to disclose tacit information, and engage business partners in a similar organized framework. The company acquires improved benefit when the company expands the global networks and strengthens the prerequisites for coordination between and among corporations. Social capital characterizes different features, predominantly trust, norms, and networks. Definitively, the high level of trust between the company and its business partners induces innovation possibilities. Networks develop as actors cultivate reliable and effective communication channels across organizational boundaries (LANDRY ET AL., 2002).

Regarding the summary of previous concepts, this research defined innovation as the company's capabilities to develop distinctive products sustained with the market demand (LANDRY ET AL., 2002). The company enhanced innovation prospects by implementing advanced production systems and innovative work method rather than its competitors (MAURER, 2010; MOLINA-MORALES ET AL., 2011; SANKOWSKA, 2013).

In this section, this study discussed disruptive innovation's previous insights to justify the term of a disruptive era. This research started to examine disruptive innovation's grand theory, disruptive innovation mechanism, and the effect of disruptive innovation. Then this dissertation would discuss a term of a disruptive era. The concept of disruptive innovation emerges and encourages the scientific debates in strategic research management when CHRISTENSEN (1997) firstly articulated disruptive technology and disruptive innovation (CHRISTENSEN, 2006; CHRISTENSEN ET AL., 2018). ADNER (2002) described disruptive innovation's mechanism approach when disruptive technology transforms and changes the competitive

market through the framework of competitive price, performance of products or services, and market demand.

Figure 3 illustrates the model of disruptive innovation based on CHRISTENSEN (1997, 2006)

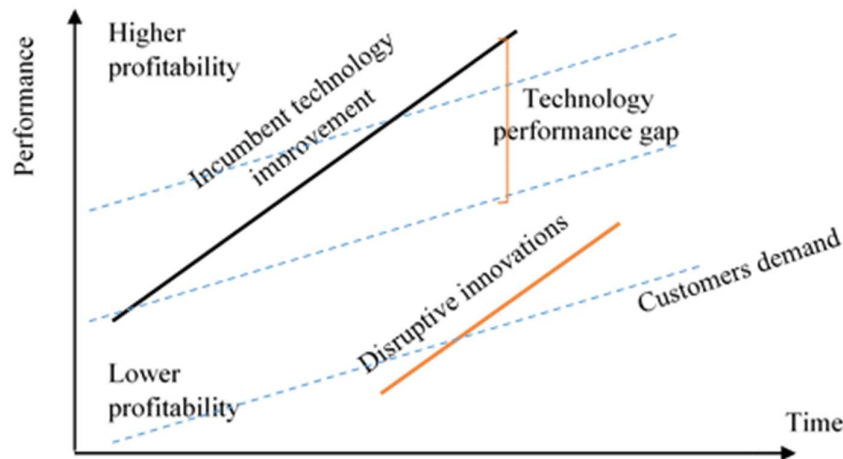


Figure 3. Disruptive innovation.

Source: CHRISTENSEN (1997, 2006)

Christensen (CHRISTENSEN, 1997, 2006) proposed a term of disruptive innovation consisted of three main stages. First period, the incumbent could provide the customers' needs by creating more improved, feature-amusing products when the speed of technological development outperforms costumers' demand. As a result, the incumbent will sell more products to their best loyal customers at higher margins and higher profitability. However, the incumbent firm likewise creates a gap in the market between the high-tech improvement and customers' demand, which then provide an opportunity for competitors entering the industry. Second phase, the incumbents and the newcomers compete in the market by implementing different types of innovation. The incumbents perform sustaining innovations to develop products and services in company with majority customers by offering an over-valued price thus generating higher margins and profitability. However, the newcomers provide products, which are inferior to the incumbents. They set targeted consumers by offering products more competitive, more affordable, more accessible, or more suitable than incumbents' products. Finally, the incumbents may not be attractive to invest in current innovation and lose their existing customers. However, the newcomers are motivated to invest in further improvement to provide their customers. Consequently, the newcomers are eager to develop innovations that provide higher-margin, target higher markets when incumbents in, and begin offering innovative products for customers' incumbents. Then the incumbents go out of business from the

competitive market. Those previous periods of previous conditions relating to a disruption process of the incumbent out of business indicate a disruptive era.

Disruptive innovation theory has anomalies in two categories in which the manager of incumbent industry responses promptly to encounter a new technology or product or service introduced by the newcomers. First, the manager takes an opportunity to innovate in a financially appealing rationale relative to the company's revenue and cost structure and its profit model. Second, the manager does make a profit to innovate due to attractively financial structure (CHRISTENSEN, 1997, 2006).

The first anomaly is that the managers should set up their companies' resources, processes, and values to confront the newcomers who emerging innovations. The incumbents may then innovate to develop products or services similar to the new competitors, or the incumbents may breed a leading-business unit in disruptive innovation. As a result of the first anomaly condition, the incumbent corporations will sustain a market where the incumbent leaders beat the entrant who confronts the incumbents' sustaining innovation. Besides, the incumbent corporates sell better products or services to allure potential profit margins to their best customers (CHRISTENSEN, 1997, 2006). ADNER (2002) also proposed that the managers precisely offer competitive prices, the performance of products or services, and market demand.

A consequence of the second anomaly case, the incumbent firm develops a cloned corporate-leading market successfully in disruptive innovation. The cloned company develops and commercializes the products or services in which similar market with the newcomers' ones. Then that cloned business will responsibly sustain the emerging profit of the previous, vigorous, nucleus corporate. Two anomalies, illustrating that the incumbents can encounter the newcomers' emerging disruptive innovation, describe a sustaining era.

This study argued a disruptive era based on phases of disruptive innovation of CHRISTENSEN (1997). A disruptive era illustrates a period when the start-up corporates disrupt the existing corporates from the market because the newcomer corporates' innovative technologies substitute the incumbent firms. Besides, the consumers in the market shift their demand from buying incumbents' products to the newcomers' ones when innovative products' performance exceeding consumers' expectation (ADNER, 2002). A disruptive period starts when the start-up firms enter the market where incumbent corporations serve a medium-high tier of consumers. Meanwhile, the newcomer corporates supply new products to the low consumers who not served by the incumbents. The newcomers' products attract more consumers because their performances exceed the consumers' expectations. Therefore, invading firms start to gain more customers. Afterwards, the newcomers continue to invest in developing their disruptive

technology to improve their products, while the incumbents are not interested in investing in similar technology developed by the newcomers. Then the newcomer firms generate higher profit because the innovative products fascinate the medium-high level of consumers in the market. The medium-high consumers shift their demand from the incumbents' products to the demand of the innovative ones. Consequently, the start-up firms gain high windfall while the existing corporates ruin their profit due to their market diminishing. While the incumbents leave the market, the start-up corporates conquer the existing market (CHRISTENSEN, 1997, 2006).

2.5 Information and Communication Technology Companies

The information and communication technology (ICT) sector incorporates the production and distribution of information and cultural products to send out or disseminate products, namely data or communications, information technology accomplishments and dealing with data and other information service activities. ICT sector includes the main activities in publishing, software publishing, motion picture and sound recording, radio and TV broadcasting and programming, telecommunication activities, and information technology activities, and other information services (UNITED NATIONS, 2008; OECD, 2011).

This study summarized types of business expertise in the ICT sector, as listed in Table 1.

Table 1. Business activities of ICT companies in the International Standard Industrial Classification of All Economic Activities (ISIC)

Division - Class	Business Activities
61 Telecommunication	This division consists of telecommunications and related service activities, i.e., transmitting voice, data, text, sound and video. The transmission facilities that carry out these activities may be based on a single technology or a combination of technologies. The commonality of activities classified in this division is the transmission of content, without being involved in its creation.
62 Computer programming, consultancy, and related activities	This division provides expertise in the field of information technologies: writing, modifying, testing and supporting software; planning and designing computer systems that integrate computer hardware, software and communication technologies; on-site management and operation of clients' computer systems and/or data processing facilities; and other professional and technical computer-related activities.
62.01 Computer programming activities	This class incorporates the writing, modifying, testing and supporting of software. This class includes activities: 1). Creating the structure and content of and or write the computer code necessary to create and implement systems software, software application, databases, and web pages. 2). Customizing software, i.e. modifying and configuring an existing application so that it is functional within the clients' information system environment

62.02 Computer consultancy and computer facilities management activities	This class contains activities: 1). planning and designing of computer systems that integrate computer hardware, software and communication technologies. 2). provision of on-site management and operation of clients' computer systems and/or data processing facilities, as well as related support services.
62.03 Computer facilities management activities	This class involves the provision of on-site management and operation of clients' computer systems and/or data processing facilities, as well as related support services.
62.09 Other information technology and computer service activities	This class includes other information technology and computer-related activities not elsewhere classified, such as computer disaster recovery, installation (setting-up) of personal computers, and software installation.
63 Information service activities	This division comprises the activities of web search portals, data processing and hosting activities, and other activities that primarily supply information.

Source: (UNITED NATIONS, 2008; OECD, 2011)

ICT corporates offer communication technologies, namely the Internet, wireless connection, computers, software, applications, mobile phones, websites, applications, social networking, and other media applications that aiding users to access, store, retrieve, and manipulate information in digital forms. ICT corporates observed in this study exist in the division of 62 (UNITED NATIONS, 2008; OECD, 2011)

2.6 Financial performance

This section illustrated the concepts of business performance to support financial performance description used in this study. The review is shown as follow.

The scientific academicians investigated the measurements of business performance in the field of strategic management. A seminal manuscript from VENKATRAMAN-RAMANUJAM (1986), which cited by STAM ET AL. (2014) and LYU-JI (2020) revealed that the schematic domain of business performance consists of three fields: financial performance, financial-operational performance, and organizational effectiveness. Financial performance approach implements the uptake of a simple result of the firm's goals completed regarding financial indicators. Financial performance refers solely to indicators, such as sales growth, profitability, earning per share, and others. Subsequent field of business performance comprises comprehensive indicators of financial and operational performance. In this frame, the treatment to measure operational performance denotes such indicators as market-share, new product introduction, product quality, marketing effectiveness, manufacturing value-added, and other

technological efficiency indicators. Ultimately, the business performance in the broader concept, which is framed in multiple and conflicting nature of organizational goals and influence of various stakeholders, denotes organizational effectiveness.

This study stood for the initial domain of business performance in term of financial performance. An important question emerges whether the companies are generating profit based on the assets and capital employed. Thus, profitability provides the effectiveness of the company to create profit based on the assets and capital used. Some indicators are commonly applied in profitability measurement in terms of profit assets ratio such as Return on Sales, Return on Assets, Operating Profit Margin, and Return on Capital including Return on Equity and Return on Capital Employed (MARTIN ET AL., 2016). DAVIS ET AL. (2000) argued that profitability represents the company's efficiency and denotes the manager's capability to accomplish profit while minimizing the total cost and transact cost. In reducing transaction cost, the manager could organize the internal company efficiently because of controlling the employees' performances uncertainty. Following condition, managers can direct business partners, discuss agreements, observe accomplishment, and revise fluctuating situations (WILLIAMSON, 1991; CROOK ET AL., 2013). Finally, the company can mitigate the internal transaction by uptake of interpersonal trust and the trust in the partners. Trust as an economic safeguard could reduce the transaction cost (WILLIAMSON, 1993A). Conducive internal organization and bounded collaboration provide opportunities to the company enhancing innovation and thus, profitability.

2.7 Previous Studies

In this section, this study detailed the findings of previous scientific research. This research scrutinized the experimental results relating to the effect of interpersonal, inter-organizational, and institutional trust on business performance. This study also reviewed the interaction between inter-organizational trust, innovation, and business performance. This section summarized the summary of previous articles as follow.

This study summarized the direct effect of interpersonal trust on business performance in Table 2. This research then considered the parallel connection between interpersonal trust and company performance from previous manuscripts with a similar primary theory approach.

Table 2. The relationship between interpersonal trust and business performance

N o	Author(s)	Types of Interpersonal trust fit with this study	Samples	Grand Theory	Findings	Role in this research
1	RICH (1997)	Trust between employees and the manager	183 salesperson-manager dyads from 10 different U.S. companies	Social cognitive theory	Trust in the manager had a positive influence on sales performance and job performance.	Supporting the indicator of interpersonal trust.
2	TSAI-GHOSHAL (1998)	Trust among units in the organization.	15-unit business in-home appliance, industrial equipment and computer communication sectors	Social capital	Trust had a positive influence on exchange collaboration related to product innovation.	Trust represented a relational dimension in social capital.
3	DAVIS ET AL. (2000)	Trust in the manager and the organization	371 employees of restaurant industries	Competitive advantage	Trust in the general manager positively affected sales and profit.	Providing insight into the relation between trust and company performance.
4	DIRKS-SKARLICKI (2009)	Trusted by colleagues	174 financial services staff at the Western Canada Bank	Social exchange theory	Being trusted by co-workers was related to a higher level of job performance.	Postulating the link between being trusted and performance.
5	BROWN ET AL. (2011)	Trust in workplace organization	2,680 workplaces in 2011 and 2,295 workplaces in 2004 from the Workplace Employment Relations Survey (WERS)	Principal-agent theory	Interpersonal trust mediated the relationship between climate strength and work performance.	Stimulating the role of interpersonal trust as a mediating variable. Work climate indicated interpersonal trust. Managerial capability organized the workplace.
6	GOERGEN ET AL. (2013)	Trust in firm-level. Country trust Profitability	Firm-level data contained 2,999	Social capital and Transaction	Country trust had a negative influence on profitability.	Supporting positive relationship between

			observations from 19 OECD countries	cost economics	Trust in firm had a positive effect on profitability. Level both country trust and firm trust had a negative impact on profitability.	interpersonal trust and profitability. Research gap: effect of trust in government on profitability. Inspiring the indirect connection between trust and innovation. Supporting the indicator of trust in the term climate of trust within a company. Establishing the link between trust and firm performance
7	SANKOWS KA (2013)	Interpersonal trust, Innovation	202 Polish companies listed on the Warsaw Stock Exchange	Social capital. Transaction cost economics.	Trust performed a role as a process enabling transfer and creation of knowledge to affect innovation. Knowledge creation partially mediated the connection between trust and innovativeness.	
8	JING ET AL. (2014)	Trust between employees and supervisor (manager)	580 respondents consisting of 100 managers, 217 staff, and 263 customers in a pharmacy chain	Social capital and Principal-agent theory	High level of trust correlated to positive financial performance.	
9	CHEN ET AL. (2014)	Trust between employees and supervisor (manager)	601 supervisor-subordinate dyads from 27 companies in a Taiwanese company	Social exchange theory	Trust operated as a mediating variable to empower the relationships between leader benevolence, morality, and employee in-role performance.	Inspiring the role of leader competence and interpersonal trust as a mediating variable
10	VANHALA-DIETZ (2015)	Employees' trust in the company	411 samples from a forestry company and 304 respondents of an ICT company in Finland	Knowledge management	Workers' trust in an organization positively mediated the relationship between human resource management perceptions and a set level of staff	Supporting the role of interpersonal trust as a mediating variable. Interpersonal trust reduced turnover level

11	AUDENAE RT ET AL. (2016)	Trust-in-the- organization	568 public service employees from 75 job categories in a large, public sector organization in Belgium	Climate theory and Social exchange theory	performance, unit performance, and organization performance. Trust-in-the- organization mediated the connection between the strength of the expected climate and work performance.	within the company. Inspiring the role of interpersonal trust as a mediating variable.
12	OLÁH ET AL. (2017)	Internal trust. Trust in subordinates.	51 logistics providers in Hungary	Transaction cost economics. Resource dependence. Relational governance.	The level of trust in the organization among employees and colleagues had a positive direction on Earnings Before Tax.	Determining the link between internal trust and financial performance
13	ALLEN ET AL. (2018)	Trust in the manager and the organization	112 family business programs at a large US university	Primary agency theory. Transaction cost economics	Levels of trust were associated with increasing firm performance.	Determining the link between internal trust and financial performance
14	KLOUTSIN IOTIS- MIHAIL (2018)	Trust between employees and supervisor (manager)	350 front-line staff in the Greek banking sector	Social exchange theory. Norm of reciprocity	Trust had a moderating role in empowering the relationship between high- performance systems and employee outcomes. Employees trusted by their supervisors had strong-minded in the workplace.	Supporting trust between employees and supervisors as an indicator of interpersonal trust.

Resource: Authors' research (2020).

Based on the previous scientific results, this research applied social capital and transactions cost economics, which was coherent with scholars' works: TSAI-GHOSHAL (1998), GOERGEN ET AL. (2013), SANKOWSKA (2013), JING ET AL. (2014), OLÁH ET AL. (2017), and ALLEN ET AL. (2018). Furthermore, they also carried out their research with case studies in the corporate context. This study convinced that there was a positive relationship between

interpersonal trust and business performance measured by profitability. Interpersonal trust could perform as a direct variable as examined by GOERGEN ET AL. (2013), JING ET AL. (2014), OLÁH ET AL. (2017), and ALLEN ET AL. (2018). Meanwhile, interpersonal trust similarly could represent a mediating variable in a research model, as investigated by SANKOWSKA (2013) and KLOUTSINIOTIS-MIHAIL (2018). Then, this study acquired interpersonal trust indicators, namely: trust between the employees and the manager, as studied by GOERGEN ET AL. (2013), SANKOWSKA (2013), JING ET AL., (2014), KLOUTSINIOTIS-MIHAIL (2018), and likewise OLÁH ET AL. (2017), level of manager competence (BROWN ET AL., 2011), the role of the manager making policies that imply a conducive work environment (SANKOWSKA, 2013), and low rate of turnover level (VANHALA-DIETZ, 2015). This research also revealed a research gap that the connection between interpersonal trust and business performance is still elusive. DAVIS ET AL. (2000), JING ET AL. (2014), OLÁH ET AL. (2017), and ALLEN ET AL. (2018) investigated that interpersonal trust had a positive influence on business performance. However, ZAHEER ET AL. (1998) examined that interpersonal trust did not affect business performance. Moreover, GOERGEN ET AL. (2013) examined that the level of both country trust and firm trust had a negative impact on profitability.

This study then scrutinized the effect of intra-organizational trust on corporate performance in Table 3.

Table 3. The relationship between inter-organizational trust and business performance

No	Author(s)	Type of inter-organizational trust fit with this study	Samples	Grand Theory	Findings	Role in this study
1	ZAHEER ET AL. (1998)	Interpersonal trust. intra-organizational trust.	205 purchasing managers as members of the National Association of Purchasing Managers (NAPM)	Transaction cost economics	Interpersonal trust had a positive correlation with intra-organizational trust. Intra-organizational trust had a positive influence on performance. Interpersonal trust did not impact on performance.	Supporting a research gap. The positive correlation between interpersonal trust and intra-organizational trust. A direct effect of intra-organizational trust on performance. Finding a research gap of the

2	GAUR ET AL. (2011)	Inter-organizational trust	Data from 565 German SMEs	Transaction cost economics	A positive association between inter-organizational trust and firm performance. Internal uncertainty reduced the positive relationship between trust and firm performance, whereas environmental uncertainty improved the positive connection between trust and firm performance.	direction interpersonal trust on performance. Supporting an association between inter-organizational trust and firm performance. Supporting an indicator of trust in business partners.
3	LAAN ET AL. (2011)	Trust relationship between client and contractors.	30 key informants involved in a 40-million-dollar rail construction project in the Netherlands	Transaction cost economics	The initial conditions of an inter-organizational relationship resulted in the sharing of risks and opportunities. Inter-organizational trust between client and contractor influenced project outcomes.	Inspiring indicator inter-organizational: trust in clients and contractors.
4	WEI ET AL. (2012)	Inter-organizational trust	154 manufacturing firms in Taiwan	Transaction cost economics. Social exchange theory.	Inter-organizational trust had a positive association with partner cooperation, which affect the increase in performance in the logistics chain.	Supporting the relationship between inter-organizational trust and business performance. Supporting a construct of trust in supplier of

5	JEAN ET AL. (2014)	Trust product innovation	170 multinational automobile suppliers in China	Transaction cost economics. Resource-based theory.	Knowledge protection, trust, and technological uncertainty were all found to drive more significant product innovation.	inter-organizational trust. Supporting trust in customers as the indicator of inter-organizational trust. Providing indicators of innovation.
6	BIEN ET AL. (2014)	Trust between manufacturers	104 biotech and pharmaceutical manufacturers in Taiwan	Transaction cost economics	Trust had a positive direction on cooperative performance.	Supporting trust in business partners as an indicator of inter-organizational trust.
7	LEE ET AL. (2015)	Inter-organizational trust	375 samples of Korean SMEs in seven industrial clusters	Social capital and Learning curve theory	Inter-organizational trust had a positive effect on innovation output. Innovation output indicated the number of products developed, process improvements, and patents achieved.	Supporting the direction between inter-organizational trust and innovation.
8	SHAHMEHR ET AL. (2015)	Interpersonal trust and inter-organizational trust	120 emerging Iranian SME	Social capital	Trust in both inter-personal and inter-organizational levels had a positive impact on business performance.	Supporting the relationship between inter-organizational trust and business performance. Providing indicators of business performance.
9	CAO ET AL. (2017)	Inter-organizational trust	136 supply chain specialist respondent among top	Social capital	Inter-organizational trust moderated the connection between cloud	Providing an indicator of trust in supplier in inter-

10	LU ET AL. (2017)	Inter-organizational trust	management in four different companies in the USA 243 manufacturing firms in China	Resource-based theory. Organizational control theory	computing and information sharing. Inter-organizational trust had a positive effect on performance.	organizational trust Supporting the relationship between inter-organizational trust and performance. Inspiring trust in partners as an indicator of inter-organizational trust.
11	BALBONI ET AL. (2018)	Trust in supplier	138 international alliances	Transaction cost economics. Resource-based theory.	Trust indicated a positive effect on alliance success. Trust moderated the effect of formal control on alliance performance by reducing the importance of output control and increasing of process control.	Supporting trust in business partners as an indicator of inter-organizational trust.
12	OLÁH ET AL. (2019B)	Trust in stakeholders. Trust in institutions. Financial Performance	149 ICT service providers	Social capital and Competitive advantage	Negative relationships between trust in institution and business stakeholders and profitability ratios. Only trust in large firms showed a positive association with profitability.	Providing a research gap. Inspiring the connection between trust in institutions-business stakeholders and profitability; Trust in large companies and profitability.

Resource: Own research (2020)

This study confirmed that transaction cost economics and social capital applied as the seminal concept of previous research. In a business network, intra-organizational trust represents the

social capital that supports the system and the business. Besides, intra-organizational trust also performs governance to manage contractual relations between the companies and their business networks (CROOK ET AL., 2013; WILLIAMSON, 1991). Most scholars, displayed in table 2, examined the association between intra-organizational and business performance in the enterprises' cases. Inter-organizational trust could perform a direct variable connected with business performance, as examined by ZAHEER ET AL. (1998), GAUR ET AL. (2011), BIEN ET AL. (2014), SHAHMEHR ET AL. (2015), and LU ET AL. (2017). Inter-organizational trust likewise enhanced innovation, which discussed by JEAN ET AL. (2014) and LEE ET AL. (2015). Besides, inter-organizational trust moderated the relationship between two latent variables, which studied by CAO ET AL. (2017), and BALBONI ET AL. (2018).

Regarding the previous manuscripts, this study revealed some indicators of inter-organizational trust as follow:

1. Trust in business partners, from the RESEARCH OF GAUR ET AL. (2011), BIEN ET AL. (2014), LU ET AL. (2017), BALBONI ET AL. (2018), and OLÁH ET AL. (2019B).
2. Trust in customers and clients, from studies of LAAN ET AL. (2011), and JEAN ET AL. (2014).
3. Trust in suppliers and subcontractors, from findings of WEI ET AL. (2012) and CAO ET AL. (2017).
4. The degree of trust in other similar business with the company, from study of BIEN ET AL. (2014).
5. The consideration of the duration of the relationship with the clients from short term until long term, as examined by BALBONI ET AL. (2018).
6. The beneficial evaluation degree of the company's relationship with contracting partners, as examined by CAO ET AL. (2017) AND BALBONI ET AL. (2018).
7. Period time of processing in terms of a contract with clients, from investigations of LAAN ET AL. (2011) and BALBONI ET AL. (2018).
8. The company's role to be decisive in building trust between the company and partner companies, as investigated by MARI (2010) and BALBONI ET AL. (2018).

This research disclosed the research gap in the direction of intra-organizational trust on business performance. Evidence from several cohort studies indicated that a strong relationship between intra-organizational trust and business performance, as examined by ZAHEER ET AL. (1998), GAUR ET AL. (2011), BIEN ET AL. (2014), and SHAHMEHR ET AL. (2015). Their previous results were in contrast with the findings from OLÁH ET AL. (2019B).

This study then reviewed the effect of institutional trust on economy and social behavior in Table 4.

Table 4. The relationship between institutional trust and business performance

No	Author(s)	Variables fit with this study	Samples	Grand theory	Findings	Role in this research
1	ZAK-KNACK (2001)	Institutional trust	41 countries of the World Values Survey	Transaction cost economics	Trust had a positive relationship with economic growth. The finding provided a new understanding of the perspective that social and institutional factors impact on financial performance.	Supporting the indicators of institutional trust.
2	ASKVIK-JAMIL (2013)	Institutional trust	100 respondents in Bangladesh	Social capital	The high level of institutional trust presented a paradox. It implied that there be dysfunctional for the emergence of a democratic governance system.	Supporting the indicators of institutional trust in term of trust in government and public institutions.
3	BURSIAN ET AL. (2015)	Trust in government	EU Countries	Social capital	Trust in the government also determined conditions in countries with a simple business cycle.	Trust in government supported conducive business climate.

Resource: Own research (2020)

Concerning the business and economy, institutional trust had a positive effect on economic growth ZAK-KNACK (2001) and expectations regarding the environment of commerce (BURSIAN ET AL., 2015). ASKVIK-JAMIL (2013) inspired trust in government and various institutions as the indicators of institutional trust. To sum up, institutional trust provides a conducive climate of business for companies and individuals.

Table 5 summarizes the published manuscripts which investigated the direction among inter-organizational trust, innovation, and business performance. The summaries of previous findings inspired to this study developing the hypotheses.

Table 5. The relationship between inter-organizational trust, innovation and business performance

No	Author(s)	Variables fit with this study	Samples	Grand Theory	Findings	Role in this research
1	COOKE-WILLS (1999)	Social capital. Innovation.	54 SMEs in Denmark, 56 in Ireland, and 43 in Wales as successful participants in Framework Programs 3, 4 and the specialist EU innovation programs	Social capital	Nurturing social capital correlated with the development of business, knowledge, and innovation. The SME should be offered opportunities to develop innovation network and build commitment.	Supporting the association between social capital and innovation.
2	LANDRY ET AL. (2002)	Trust. Innovation.	440 manufacturing firms in the southwest of Montréal.	Social capital	The interactions between social capital and innovation were still insufficient. Diverse forms of social capital influence the company's decision. Insignificant rises in social capital required the forms of participation assets and relational assets, contribute the prospect of innovation.	Supporting the relation between trust and innovation.
3	MURPHY (2002)	Micro, meso, macro trust mechanism. Creative innovation.	37 furniture making and metal working	Social capital	Trust was an essential attachment and bridging process in social relations that simplifies	Supporting the relation between trust and innovation; Proving the

		Responsive innovation.			information exchange and collective knowledge creation. Trust correlated to different forms of innovation.	indicators of innovation.
4	MOLINA-MORALES ET AL. (2011)	Trust and Innovation	156 manufacturing firms from different industrial districts in Valencia	Social capital. Transaction cost economics.	Level of inter-organizational trust was essential for innovation. Overmuch trust had a negative impact on innovation	Providing a research gap. Describing the indicators of trust and innovation.
5	CORSTEN-FELDE (2005)	Trust. Innovation. Financial Performance.	135 Swiss buyer-supplier relation	Transaction cost economics.	Trust had a positive influence on innovation. In high trust condition, trust did not affect innovation. Meanwhile, trust had a positive influence on innovation in low trust condition.	Finding a research gap. Supporting the indicators of innovation, and financial performance.
6	MAURER (2010)	Trust. Knowledge Acquisition. Innovation.	144 firms in the German engineering industry	Agency theory and Transaction cost economics.	Trust between project team members working on an inter-organizational project positively impacted the acquisition of external knowledge which, in turn, promotes product innovation.	Supporting the indicators of innovation
7	VACCARO ET AL. (2010)	Trust. New Product Performance. Financial Performance	136 automobile manufacturers and auto suppliers listed by ANFAVEA (the Brazilian Automobile Manufacturers	Transaction cost economics. Knowledge management.	New product performance had a positive influence on financial performance.	Supporting the direction between innovation and financial performance. Providing indicators of innovation and financial performance.

8	WANG ET AL. (2011)	Trust Innovation Performance.	Association) and SINDIPECAS (the Brazilian Automobile Suppliers Association). 315 manufacturing firms in Shaanxi, Henan, Shanghai, Guangdong, Liaoning, Sichuan, Shandong and Shanxi provinces of China	Transaction cost economics	Trust had a positive influence on innovation.	Providing the influence of trust on innovation. Supporting the indicators of innovation.
9	MAIGA-JACOBS (2007)	Financial Performance	597 US manufacturing units selected from Industry Week series	Activity-based cost management	Activity-Based Cost (ABC) practice had a positive indirect association with manufacturing cost reductions Extensive ABC use had no significant association with ROA.	Providing the antecedents of financial performance.
10	MOELLER (2009)	Trust. Financial Performance.	109 companies in Germany with business networks.	Social capital	Trust did not have impacts on intangible performance or financial performance.	Supporting a research gap.

Resource: Own research (2020)

This study revealed that social capital and transaction economics were applied as the grand theory in previous research. This study found that some scholars investigated the direction between inter-organizational trust and innovation and the association between innovation and financial performance. This research discovered an elusive direction between inter-organizational trust and innovation. Evidence from several cohort studies indicated that trust had a positive influence on innovation, as investigated LANDRY ET AL. (2002), MURPHY (2002), VACCARO ET AL. (2010) and WANG ET AL. (2011). The previous findings pointed to the contrary. CORSTEN-FELDE (2005) and MOELLER (2009) investigated that great

extent of trust did not affect innovation, but trust had a positive influence on innovation in low trust climate. Besides, MOLINA-MORALES ET AL. (2011) examined that high level of trust had a negatively impact on innovation and in reverse.

This study got provisions of indicators of innovation from previous studies as follow:

1. The degree of innovation in the company's products and services is high compared to the competitors, from the study of LEE ET AL. (2015).
2. The level of customization to a distinct customer requirement is high related to the challengers.
3. The extent of the uniqueness of the company's products and services are more significant than the rivals. JEAN ET AL. (2014) examined point two and three.
4. The company is more innovative than the competitors in deciding what methods to use in achieving the targets and objectives, as investigated by MOLINA-MORALES ET AL. (2011).
5. The company is more innovative than the rivals in initiating new procedures or systems, from the research of MAURER (2010).
6. The company is more innovative than the competitors in initiating changes in the job content and work methods of the staff, as examined by MOLINA-MORALES ET AL. (2011) and SANKOWSKA (2013).

2.8 Hypotheses development

After summarizing the previous research, this study proposed to develop the six hypotheses. The hypotheses suggested an integrative trust affected innovation and financial performance.

2.7.1 Institutional trust, interpersonal trust, and intra-organizational trust

The company starts a collaboration with the extent of trust, either high or low, regarding the performance of various institutions and recognized reasons (KADEFORS, 2004). When the managers decided to sign the contract, they called for some safeguard that warrants the transactions achieved. The judiciary supremacies also support the partnership of the parties (RING-VAN DE VEN, 1992; GOERGEN ET AL., 2013). When conflicts emerge between the parties, the law provides ultimate safeguard to enforce the contract agreements. Government, legal systems, institutions, and common rules affect cooperation (KADEFORS, 2004). The government performance ignites personal trust (LEVI, 1996; BREHM-RAHN, 1997). To sum up, the performance of various institutions ignites trust and collaboration. Then, the institutional trust empowers internal trust and inter-organizational trust

This study noticed that institutional trust, as the external variable being as part of the business climate, supported internal trust and inter-organizational. Some scholars argued that the level of institutional trust influences the business condition in the internal company (GOERGEN ET AL., 2013; RIM-DONG, 2018) and business climate in general (PUTNAM, 1995; BREHM-RAHN, 1997; LIM ET AL., 2016). However, the direction of trust to empower internal condition and business network arises debatable results. GOERGEN ET AL. (2013) argued that high levels of firm trust combined with high levels of government trust were likely to be counterproductive and ultimately negatively influence firm performance. Indeed, being one of the social capital constituents (KAASA, 2019), trust in public and stakeholders (OLÁH ET AL., 2019B) diminished profitability. The extent of institutional trust did not improve firm performance when it was still low, but it gave advantages to the company when the institutional level was high (GOERGEN ET AL., 2013).

Since the company has trust in various institutions, the company then only focuses on managing internal trust and intra-relational trust to enhance business performance. In proposing a novelty as the theoretical framework of this research, this study argued that institutional trust would simultaneously empower the direction of trust in partners and internal trust. Then the empowered internal trust would increase the trust in partners on consequent would enhance the financial performance. This research proposed an integrative trust in the two hypotheses below.

Hypothesis 1. *Institutional trust is positively related to empowering interpersonal trust.*

Hypothesis 2. *Institutional trust is positively related to enhancing trust in partners.*

2.7.2 Internal trust and inter-organizational trust

Some scholars argued that the manager trusted the subordinates and versa to create efficient production (SAKO, 1992) by reducing monitoring costs to support the manufacturing process (BUGDOL, 2013). The role of trust increases internal management practice, corporate culture, and organisation's improvement (BIENKOWSKA-ZABŁOCKA-KLUCZKA, 2016).

ZAHEER ET AL. (1998) argued that a direction of interpersonal trust on intra-organizational trust was framed with two conceptions in terms of dispositional and relational trust. Dispositional trust described the expectation of trust simply in partners in general. Relational trust came from a relationship with the partners because trust emerged from understanding and relations with a specific exchange companion. ZAHEER ET AL. (1998) emphasized that the relationship between the manager and the partner's manager might develop inter-organizational trust. The trusted manager developed inter-organizational trust through institutionalizing process. During the time, repeated relationships between two companies developed more

comfortable and more stable in creating collaboration engagement. In this context, the manager trusts the partner's manager on behalf of the company. Interpersonal trust between the manager and his/her partners builds a connection between business to business relationship. Trust between the manager and his/her partner reduces boundary spanners between the company and the organizational partners. As a result, the empowered internal trust will increase business partners' trust (ZAHEER ET AL., 1998). This research proposed that a pleasant climate of interpersonal trust in the company affects inter-organizational trust.

Hypothesis 3: *Interpersonal trust has a positive effect on inter-organizational trust.*

2.7.3 Trust and financial performance

The company performs the production through trusted collaboration with the business partners by comparing the internal exchange cost exceeding external exchange cost. Then, the company also decides to collaborate with the partner to enhance production. The company considers the potential profit of collaboration while reducing potential transaction cost. The general insights in logical approval of trust relate to improving financial performance framed with minimizing transaction cost and organizing shared resources. As a result, the company acquires increasing productivity and opportunities for innovation in trusted business networks (WILLIAMSON, 1993A; DYER-CHU, 2000). The companies organize resources exchange among the business partners and could access potential business resources. Then, these previous resources mobilization supports production and, in turn, improve sales and financial performance. To support the previous mechanism, some scholars suggested the implementation of a relational governance mechanism. This study supported that inter-organizational trust simplifies the company and its business partners to cooperate fully and integrate shared activities in a cost-effective organization (NOOTEBOOM ET AL., 1997; ZAHEER ET AL., 1998; MCEVILY ET AL., 2003).

This study supported that inter-organizational trust develops excellent financial performance in two approaches. Firstly, inter-organizational trust performs as a safeguard against probable opportunistic and risky moral hazard from the business partners. Such assurance significantly minimizes the high cost and formal safeguarding activities, namely complex contracts and tight monitoring (WILLIAMSON, 1993A; DYER-SINGH, 1998). Secondly, in a trusted network, bounded partners are liable to engage in intense communication and focal information communicating on an informal source, enabling valuable innovation through focal collaboration (GAUR ET AL., 2011).

Previous scholars examined inter-organizational trust as a significant factor (DAVIS ET AL., 2000) in boosting business performance (BARNEY, 2001). However, there is a debatable result of the effect of trust on business performance. OLÁH ET AL. (2019B) indicated that trust in business partners had a positive influence on financial performance. Besides, trust in management was positively related to a company's financial performance in terms of sales and profits (DAVIS ET AL., 2000). On the other hand, trust in business partners also had an inconsistency effect on company performance (PALMATIER ET AL., 2006). Besides, CORSTEN-FELDE (2005) concluded that the level of trust had no significant impact on financial performance.

This study supported that inter-organizational trust boosts business performance. This study proposed business performance measured by profitability. This study measured business performance in term of profitability as one of the significant achievements of business performance. Profitability reflects the company's efficiency in terms of increasing sales while reducing the production cost (DAVIS ET AL., 2000). Profitability ratio also indicates how the company successfully controlling and applying its resources. This study argued that inter-organizational trust as the proxy of diminishing cost escalates the profitability as rising production and sales. This study proposed the fourth hypothesis below.

Hypothesis 4: *Interorganizational trust has a definite direction to financial performance.*

The company should develop an innovative product to compete with rivals (CORSTEN-FELDE, 2005). Trust in partners positively affects resource combination and exchange between the collaboration parties, which affects the value creation of products innovation (TSAI-GHOSHAL, 1998). Trust also results in improvements in the product (JEAN ET AL., 2014).

However, there is a debatable result of the effect of trust on innovation. The first scholars' group supported that inter-organizational trust had a positive influence on innovation. For instance, inter-organizational trust had a positive relationship with innovation (MURPHY, 2002; CORSTEN-FELDE, 2005; LEE ET AL., 2015). Trust ignited the innovative process, improve the economic scale, and develop sales (CHAO, 2011). Besides, trust had a positive and linear relationship with innovation performance (WANG ET AL., 2011).

The opposite group argued that no direct influence between trust and innovation (LANDRY ET AL., 2002). Moreover, trust required an optimal climate when trust was positively related to innovation level. The higher level of trust exceeding optimal condition diminished innovation. In other words, trust is worthy, but excessive trust was not virtuous (MOLINA-MORALES ET

AL., 2011). This study proposed the fifth hypothesis below, which support the positive direction of trust on innovation.

Hypothesis 5. *A higher level of trust in business partners may ignite innovation.*

The positive relationship between trust and innovation appointed previous results from MURPHY (2002), CORSTEN-FELDE (2005), and LEE ET AL. (2015). Then, innovation develops product performance, which positively influences financial performance (VACCARO ET AL., 2010). This research proposed the hypothesis that innovation has a positive effect on financial performance.

Hypothesis 6. *Innovation may enhance financial performance.*

This study illustrated the effects of integrative trust on financial performance regarding the proposed hypotheses in Figure 4.

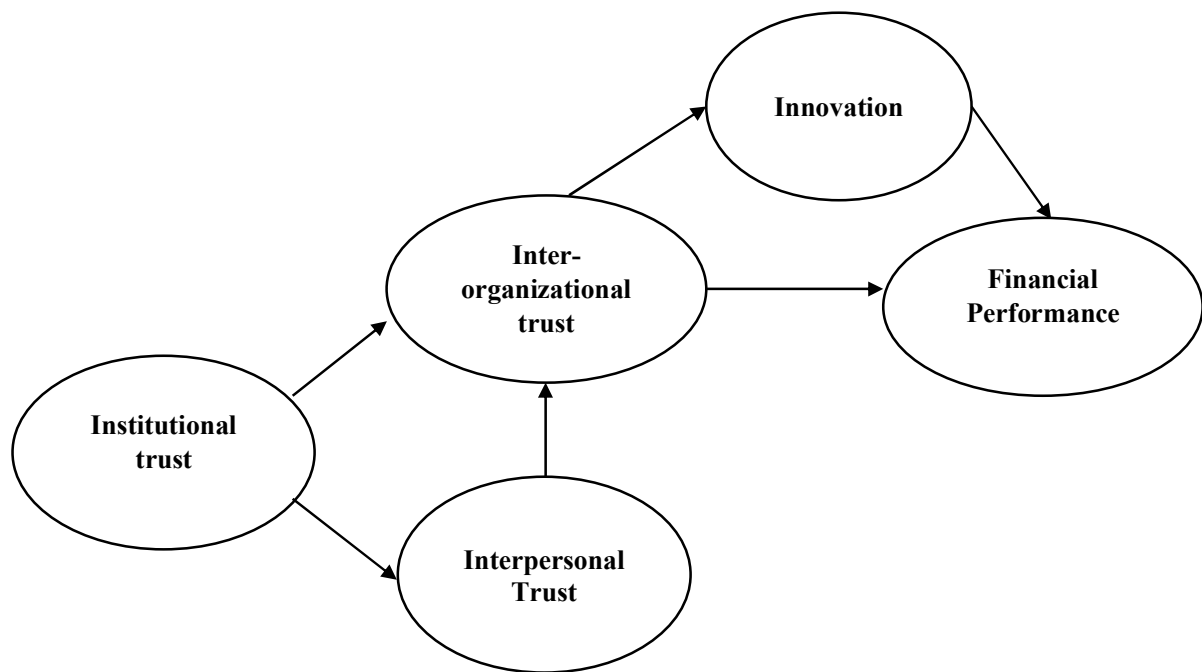


Figure 4. Integrative Trust, Innovation, and Financial Performance Model.

Source: Own research (2020)

3. MATERIAL AND METHODS

This chapter illustrated the parameters of population, statistics of the samples, operational definition of the latent variables, the instrument of analysis, and research method.

3.1 Population and sample

The study population was predominantly made up of active ICT Companies in Hungary which had a collaborative partnership with the business associates. This study analyzed about 90 percent of active ICT Companies with proportion 1625 from about 1800 units.

Table 6. Operational status of ICT Companies in Hungary

Operational status	Frequency
Operational	1625
Liquidation	97
Closed	76
Total	1798

Source: EMIS (2018B)

Most of the ICT companies were in Budapest. The other companies occupied cities, for instance, Debrecen, Budaörs, Székesfehérvár, Szeged, Győr, Nyíregyháza and others.

Table 7. ICT Companies location in Hungary

City	Frequency	Percentage
Budapest	1028	70.90%
Debrecen	31	2.14%
Budaörs	25	1.72%
Székesfehérvár	22	1.52%
Szeged	16	1.10%
Győr	15	1.03%
Nyíregyháza	14	0.97%
Pécs	12	0.83%
Érd	11	0.76%
Miskolc	11	0.76%
Baja	9	0.62%
Kecskemét	9	0.62%
Szentendre	9	0.62%
130 Cities lower than 8	238	0.13%
unidentified location	348	16.29%
Total	1798	100%

Source: EMIS (2018B)

This study used random cluster sampling based on the address of ICT Companies. The common characteristics of these samples were active operation, located mostly in Budapest and other cities in Hungary, and having at least a collaboration with a partner. This study recently conducted an online survey by submitting a questionnaire to company founders and or managers as critical informants and respected sources. This research obtained 149 samples from 250 questionnaires. Then, this study excluded outliers from previous samples, and it finally used 103 sample size. This research also used a financial statement to evaluate the profitability ratio.

3.2 Variables and operational definition

The research model comprised five latent variables derived from previous studies. The simplest model solely consisted of institutional trust, interpersonal trust, inter-organizational, innovation capability, and financial performance. Table 8 presents definitions of the latent variables and their measured operation as follow.

Table 8. Variables and operational definition

Latent variables definition	Items	Indicators of latent variables
Interpersonal Trust (IPT) defines employee's willingness to trust in managers (MAYER-DAVIS, 1999; ZAHEER ET AL., 1998; DIRKS-SKARLICKI, 2009) and company's organization (VANHALA-DIETZ, 2015; AUDENAERT ET AL., 2016). The employees trust in the managers will perform competently establishing decisions which in turn affecting a conducive corporate culture and trust atmosphere within a company (BROWN ET AL., 2011; SANKOWSKA, 2013).	IPT1	1) trust between employees and managers/subordinates, the confidence among the owners and management, and confidence between employees in the same situation (DAVIS ET AL., 2000; OLÁH ET AL., 2017).
	IPT2	2) a decisive role in creating a corporate culture and a climate of trust (BROWN ET AL., 2011; SANKOWSKA, 2013).
	IPT3	3) level of managerial style at the company (BROWN ET AL., 2011).
	IPT4	4) level of staff turnover in the company (VANHALA-DIETZ, 2015).
Inter-organizational Trust (IOT) represents the	IOT1	1) the level of trust in a business partner (WEI ET AL., 2012)

<p>declaration of confidence between the company and the business partners, clients and contractors, and the networks. The company believes that they will comply with the promises (SAKO, 1992; SAKO-HELPER, 1998; ZAHEER ET AL., 1998; BROWER ET AL., 2009), behave or respond in a predictable and mutually acceptable manner (PORTA ET AL., 1996; CASTALDO ET AL., 2010). The company trusts the business relationship by providing benefits and making the contract effective due to its essential character (CAO ET AL., 2017).</p>	IOT2	2) the degree of trust in customers and clients (JEAN ET AL., 2014)
	IOT3	
	IOT4	3) the extent of trust in suppliers and subcontractors (BALBONI ET AL., 2018)
		4) the degree of trust in other similar IT providers with the company, as studied by BALBONI ET AL. (2018) and OLÁH ET AL. (2019B)
	IOT5	5) the consideration of the duration of the relationship with the clients from short term until long term (BALBONI ET AL., 2018)
	IOT6	6) the beneficial evaluation degree of the company's relationship with contracting partners (CAO ET AL., 2017)
	IOT7	7) period time of processing in terms of a contract with clients, as examined by LAAN ET AL. (2011) and BALBONI ET AL. (2018)
	IOT8	8) the company's role to be decisive in building trust between the company and partner companies (MARI, 2010)
<p>Institutional trust (IT) refers to the company's trust in the government (PUTNAM, 1995; BURSIA ET AL., 2015; RIM-DONG, 2018) and various institutions (ASKVIK-JAMIL, 2013). The company believes that government and public institutions can independently perform public services due to their professional and expertise capabilities (PUTNAM, 1995; PORTA ET AL., 1996; GOERGEN ET AL., 2013; RIM-DONG, 2018).</p>	IT1	1) the level of trust in state government, ministries, government agencies
	IT2	2) the degree of trust in state administration (public procurement office, competition office, the national bank, and others)
	IT3	3) the extent of trust in the judiciary court, judiciary, and prosecutor's office
	IT4	4) the level of trust in politicians
	IT5	5) trust in local government
	IT6	6) trust in the chambers of commerce
	IT7	7) trust in banks
	IT8	8) trust in large firms
	IT9	9) trust in small firms
	IT10	10) trust in customers
	IT11	11) trust in current business partners, as examined by ASKVIK-JAMIL (2013), VASA ET AL. (2014), BURSIA ET AL. (2015), and OLÁH ET AL. (2019B).
<p>Innovation (IN) describes the competencies of the company to develop distinctive products that sustained the market</p>	IN1	1) the degree of innovation in the company's products and services is high compared to the competitors (LEE ET AL., 2015)
	IN2	2) the level of customization to distinct customer requirement is high related to the challengers,

demand. The company may enhance the innovation prospects by implementing advanced production systems and innovative work method rather than the competitors (LANDRY ET AL., 2002; MAURER, 2010; MOLINA-MORALES ET AL., 2011; SANKOWSKA, 2013)	IN3	3) the extent of the uniqueness of the company's products and services are more significant than the rivals (JEAN ET AL., 2014)
	IN4	4) the company is more innovative than the competitors in deciding what methods to use in achieving the targets and objectives (Molina-MORALES ET AL., 2011)
	IN5	5) the company is more innovative than the rivals in initiating new procedures or systems (MAURER, 2010)
	IN6	6) the company is more innovative than the competitors in initiating changes in the job content and work methods of the staff (MOLINA-MORALES ET AL., 2011; SANKOWSKA, 2013)
Financial Performance (FP) denotes capabilities of the company generating profit based on the assets and capital employed (VENKATRAMAN-RAMANUJAM, 1986; MARTIN ET AL., 2016; BRIGHAM-HOUSTON, 2019; OLÁH ET AL., 2019B).	FP1	This research utilized profitability ratios to indicate financial performance. Profitability ratios consist of:
	FP2	1) Return on Assets (ROA)
	FP3	2) Return on Equity (ROE)
	FP4	3) Return on Sales (ROS)
	FP5	4) Return on Capital Employed (ROCE)
		5) Operating Profit Margin (OPM) (MARTIN ET AL., 2016; BRIGHAM-HOUSTON, 2019; OLÁH ET AL., 2019B).

Source: Author's summary review (2020)

This study measured each question of trust in the five scale-range ranging from very low to very high. In the innovation scale, response to the survey was provided on a five-point scale from strongly disagree until strongly agree. Another variable, financial performance, was assessed by profitability ratio scale from the financial statement. Here, this study formed inter-organizational trust and innovation reflected their indicators. Meanwhile, institutional trust, interpersonal trust, and financial performance had formative constructs. As a consequence, the assessment of each construct employed a different approach.

3.3 Tool of analysis

Structural Equation Model (SEM) is a statistical technique that can examine simultaneously the complicated models comprising various latent variables, observed variables, and structural paths. SEM has two types: Covariance-Based SEM (CB-SEM) and Partial Least Squares SEM (PLS-SEM). PLS-SEM underlies causative analytical method to SEM that emphasizes assessing statistical models, whose structures are aimed to offer fundamental clarifications. This

research applied PLS-SEM because PLS-SEM is a powerful method to assess the constructs' representations by weighting composites of the measured indicators. The weighted of aggregated indicators represent proxies for measurement error. Besides, it also generates a single precise result for each composite for each examination (HAIR ET AL., 2016; RAVAND-BAGHAEI, 2016; HAIR ET AL., 2019). PLS-SEM simplifies measuring the complicated models comprising various latent variables, observed variables, and structural paths. PLS-SEM underlies causative analytical method to SEM that emphasizes assessing statistical models, whose structures are aimed to offer fundamental clarifications (HAIR ET AL., 2016; HAIR ET AL., 2019).

Therefore, this research utilized PLS-SEM to examine the proposed hypotheses. Then, PLS-SEM was considerably applied to investigate how the synergy of the direction of institutional trust involving interpersonal trust enhances inter-organizational trust. PLS-SEM also clarified whether inter-organizational trust improving financial performance through innovation as a mediating variable. PLS-SEM analysis's findings provided the enhanced comprehension by exploring the direction institutional trust as an ultimate effect on interpersonal trust in the company, inter-organizational trust, and innovation on financial performance for theory development (HAIR ET AL., 2016; HAIR ET AL., 2019).

A path model in this study comprises an inner model and an outer model. The inner model in this research denotes the associations between latent variables and their indicators. Meanwhile, the outer model illustrates the directions between the latent variables. The latent variables consisted of institutional trust, interpersonal trust, inter-organizational, innovation, and financial performance. This research constructed institutional trust, interpersonal trust, and financial performance on formative measurement, meanwhile inter-organizational trust and innovation in reflective indicators. Formative measurement model shows that the observed variables indicate a predictive relationship in the directional arrows pointing to the latent variable. Meanwhile, the reflective measurement points out that the latent variable triggers the observed variables' measurement (HAIR ET AL., 2016; HAIR ET AL., 2019).

The assessment approach of PLS-SEM requires two main steps. Initially, this study evaluated the measurement of the models. Then, the final step in interpreting the result of the proposed model required the structural evaluation method. This study applied two different evaluation approach due to two distinct construct measurements.

This study evaluated the reflective measurement models, which refer to inter-organizational trust and innovation in four steps. The first step was an evaluation to examine the indicator's outer loadings, which should be above 0.708 as the recommended rule thumb. The outer loading

above 0.708 indicates that the indicator clarifies more than 50% of the indicator's variance, hence confirming the item's accepted reliability. The second stage assessed the internal consistency reliability by Cronbach's alpha (CA) with the standard index of 0.70 and higher. The value of a CA above 0.7 represents homogeneity of the indicators.

Meanwhile, Dillon-Goldstein's (DG) rho is a better alternative to evaluate the homogeneity or uni-dimensionality. DG rho value above 0.70 represents uni-dimensionality, which means the indicators strongly associate with each other and represent a single concept. The subsequent approach addresses to measure the convergent validity of each indicator from the latent variable. The convergent validity represents the level of the construct unites to clarify the variance of its items. The index used for examining the convergent validity of a construct is the Average Variance Extracted (AVE). A tolerable AVE is 0.5 or higher, which shows the construct describes at least 50% of its element variance. The final assessment relates to assessing the discriminant validity, which reveals the degree of a construct being empirically distinction from other constructs in the structural model. The rule thumb is the value of a construct's AVE larger than its highest correlation with any other constructs (HAIR ET AL., 2016; HAIR ET AL., 2019).

This study then examined the formative measurement models which refer to the institutional trust, interpersonal trust, and financial performance. The examinations of formative measurement consist of reliability, convergent validity, collinearity, and significant weight (RAVAND-BAGHAEI, 2016; HAIR ET AL., 2019). The DG rho is used to evaluate the reliability of measurement constructs with 0.70 as the minimal rule thumb. The convergent validity represents the degree of formatively measured indicator correlates positively with other measures of a similar indicator. The correlation of the formatively determined construct with the single-item construct, assessing the similar concept, should be 0.70 or higher. The subsequent evaluation is collinearity detection. The variance inflation factor (VIF) is commonly applied to examine the collinearity of the formative constructs. VIF values those five or above entitle serious collinearity between the indicators and other measured constructs. The VIF values should be nearly three and lower, indicating no critical collinearity among the formative measured indicators. In the final evaluation, the analysis requires to assess the indicator weights' statistical significance (HAIR ET AL., 2016; HAIR ET AL., 2019).

This study then evaluated the structural model, which should meet the requirements such as:

1. Evaluation of the significance and relevance of the structural model directions.
2. Assessment of the coefficients of determination (R^2).
3. Understanding and evaluating the effect size (f^2), and predictive relevance (Q^2).

4. Examination of mediating variables types (SANCHEZ ET AL., 2013; HAIR ET AL., 2016; HAIR ET AL., 2019).

The final step then investigated the proposed hypotheses and compared to the previous findings in the discussion part. This research also provided managerial implication and research contribution.

3.4 Research procedure

The method applied in this study considered the sequential examinations in Figure 5.

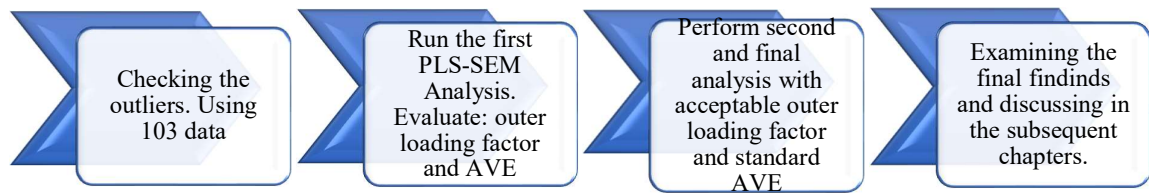


Figure 5. Research methods evaluating the data

Source: Author compilation (2020)

Most data used in this research was obtained by the survey from critical persons consisting of company founders and or managers of ICT companies in Hungary. This study also used the financial report of those companies. This study then evaluated the outliers from the data. Thus, there were 103 samples, which were included in the analysis with PLS-SEM.

The first attempt of examination involved all the observed variables. Subsequently, this study investigated the outer loading of each indicator, then evaluates the AVE values. Each outer loading should meet the value of 0.708 as the rule thumb, which represents a significant observed variable. Meanwhile, the construct should have an AVE value of 0.5 minimum, which denotes at least 50% of its element variance.

This study included significant indicators regarding the reasonable value with 0.7 of the outer loading factors. Consequently, this study left out indicators such as IPT3, IPT4, IOT7, IOT8, IT7, IT9, IT10, and IT11. Besides, this study also evaluated the AVE with 0.5 of minimal value. The first analysis showed that institutional trust, interpersonal trust, and innovation have AVE value lower than 0.5 as the standard point. The decisive step for increasing the AVE values was to reduce the observed variables, which had an outer loading lower than 0.708.

Later, this study ran the second analysis with PLS-SEM. This study then checked again the significant outer loading and AVE value regarding the required values of rule thumb. This study

then excluded the indicators having outer loading below 0.7 as the minimum value. Thus, this study omitted IT3, IT4, IT6, IT8, IOT5, IOT 6, IN3, IN6, FP3, and FP5.

Table 9. Process to confirm final indicators

Latent variables	Indicators used in 1st analysis	Omitted for next evaluation	Indicators applied in 2nd assessment	Excluded for final analysis	Final Indicators applied
Institutional trust (IT)	11	IT7, IT9, IT10, IT 11.	IT1, IT2, IT3, IT4, IT5, IT6, IT8	IT3, IT4, IT6, IT8.	IT1, IT2, IT5.
Interpersonal trust (IPT)	4	IPT3, IP4.	IPT1, IPT2	None	IPT1, IPT2.
Inter-organizational trust (IOT)	8	IOT7, IOT8	IOT1, IOT2, IOT3, IOT4, IOT5, IOT6	IOT5, IOT6	IOT1, IOT2, IOT3, IOT4.
Innovation (IN)	6	None	IN1, IN2, IN3, IN4, IN5, IN6	IN3, IN6	IN1, IN2, IN4, IN5
Financial Performance	5	None	FP1, FP2, FP3, FP4, FP5.	FP3, FP5	FP1, FP2, FP4

Source: Author's calculation (2020)

Table 9 illustrates the process to investigate the final indicators applied in the evaluation. The critical reasons omit the indicators are loading factor and AVE value. Here, the indicators should have the outer loading factor above 0.7. Other consideration is the AVE value should be at 0.5 as the minimum rule of thumb. Finally, this study involved the significant indicators examined by the PLS-SEM.

The final analysis showed that the definitive indicators used have outer loading value at 0.7, except for IOT1 and IN 2 nearby 0.7 of the values. The AVE values were similar or higher than 0.5, excluding IT. This study still involved IT in the subsequent analysis because IT has the constructs with all outer loading with 0.8 value of those are acceptable.

Lastly, this study used the definitive indicators, as listed in Table 10, to perform the final analysis. The study insisted that the observed variables required the proper outer loading and minimal AVE values.

Table 10. Final indicators used in PLS-SEM analysis

Latent variables	Number	Indicators	Code
Institutional trust (IT)	3	Trust in state government, ministries, and government agencies.	IT1
		Trust in state administration.	IT2
		Trust in local government.	IT5
Interpersonal trust (IPT)	2	Trust between employees and managers.	IPT1
		Trust in a decisive role in creating a corporate culture and a climate of trust.	IPT2
Inter-organizational trust (IOT)	4	Trust in a business partner.	IOT1
		Trust in customers and clients.	IOT2
		Trust in suppliers and subcontractors.	IOT3
		Trust in other ICT providers.	IOT4
Innovation (IN)	4	The degree of innovation of products and services.	IN1
		Level of customization to distinct customers' requirements.	IN2
		Higher level of innovative method compared to rivals.	IN4
		Higher level of innovative new procedures and system compared to competitors.	IN5
Financial performance (FP)	3	Return on Assets (ROA).	FP1
		Return on Equity (ROE).	FP2
		Return on Capital Employed (ROCE).	FP4

Source: Author's calculation (2020)

Then this study presented the comprehensive evaluation of outer loading, the measurement model, and the structural model in the next chapter.

4. RESEARCH FINDINGS AND THEIR EVALUATIONS

This chapter illustrated the respondent profile, company summary, constructs evaluation, structural model assessment, hypotheses testing, substantive impact, size impact, and types of mediating variables. This chapter discussed the study results and evaluations.

Previously this study verified the outliers from the data. Therefore, this study reduced 46 outliers from 149 samples data. Outliers here represents the value of loss from the surveyed ICT companies. Therefore, this study included 103 ICT companies that obtained potential profits as part of the analysis. This study argued that potential profit led to sustaining the ICT companies in a disruptive era.

4.1 Respondent profile

This section described the characteristic of key persons regarding their age, working-period length, gender, stocks ownership, position, and educational level.

First of all, this study described the characteristics of the respondents regarding age and working time in the company. Table 11 shows that the average old of the respondents was 47 years. The minimum standard of the respondents' age was about 36 years; meanwhile, their age was maximally normal at 58 years. The key persons can speak foreign languages more than one on average beside their mother language, with maximal three foreign languages. The respondents worked within their company for about 13 years; that interval figure was 29 years. The key persons have been employing for last five years and 21 years regarding standard interval.

Table 11. Respondent age and working duration

Features of key persons	Mean	Std. Deviation
Age (year)	46.99	11.152
Be fluent in foreign languages (item)	1.33	0.632
Working duration in the company (year)	12.83	7.787

Source: Primary data analyzed (2020). n = 103.

This study then evaluated the respondents regarding their gender and state ownership within their company. The orange bar represents respondents with the major ownership of shares in the company. The black one shows the key persons having the minor proprietorship, and the blue chart describes them without shareholders, as shown in Figure 6.

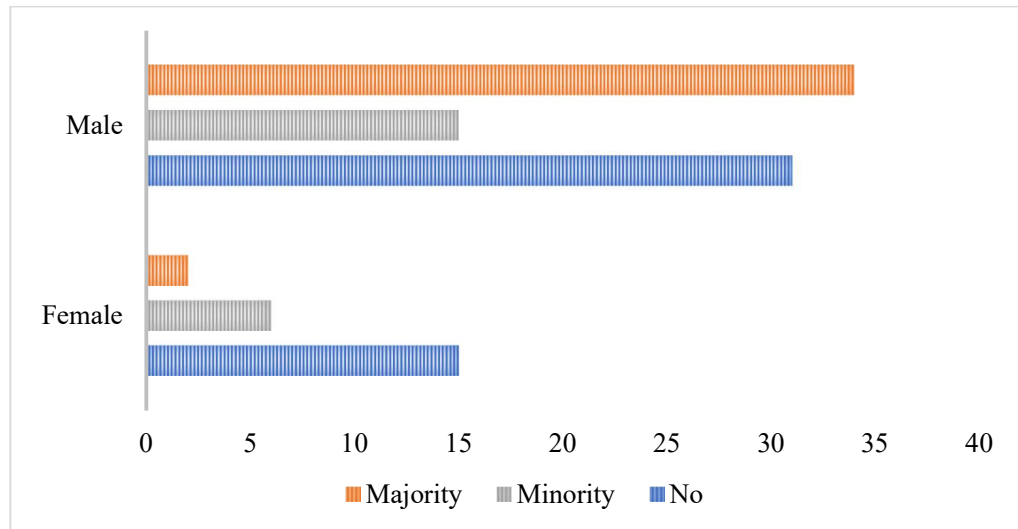


Figure 6. Respondent's equity holders

Source: Primary data analyzed (2020). n = 103.

A number of male respondents having primary equity were the highest, those number of 34, which were nearly similar to male respondents having no equity in the company. Meanwhile, the number of female respondents possessing the main stock was the smallest quantity with two persons. The number of male respondents owning minor stocks was about half of male respondents holding top stocks, those the number was similar to female key persons without stocks ownership, at 15. Finally, the number of female key persons possessing modest stocks was a slight half of those male respondents owning a similar number of stocks, which at 6.

Table 12 illustrates the respondents' subsequent description in term of position and degree of education, which analyzed in cross-tabulation.

Table 12. Respondent job and educational level

Position	Educational Level			Total
	College	Secondary	University	
Junior	3	0	11	14
Middle manager	12	2	22	36
Manager	16	2	35	53
Total	31	4	68	103

Source: Primary data analyzed (2020). n = 103.

Table 11 describes the surveyed respondents regarding their profession and the highest educational level. The main thing to note was that most of the respondents' position was manager, followed by the middle manager, with a minority working as a junior manager. Furthermore, most of the respondents had graduated from university. The number of those with further education college certificates was half of those who were university graduates. The

percentage of managers with a higher education certificate was the highest, at about 34%, double the number of junior managers with similar educational levels. The number of managers with a further education college certificate was half that of managers with a university degree. The lowest number of respondents were those who had graduated from secondary school.

To sum up, the respondents' most important representations were fellows having major stocks, 47 years old on average, fluently at least two foreign languages, and about 13 years of working experience. Both males and females respondents have employed as a manager with a university degree.

4.2 Company profile

This part denoted the Information and Communication Technologies (ICT) firms features which are surveyed in this study. The discussion started by examining classifications of ICT companies, and their figures of the employees' absorption. The observed companies remain four types, namely micro, small, medium and big companies.

Based on the number of labors employed, the percentage of small companies was the highest, at about 43%. Subsequently, the percentage of micro-companies was slightly differenced with small firms by about four percent. Then, many medium companies were about 16, which almost five-fold compared to the large enterprise

Table 13. ICT Companies classification and their employees' amount.

Classification*	Figure	Total employees
Microenterprise without employee	1	0
Microenterprise owns one until nine employees	39	209
Small enterprise employs 10 to 49 workers	44	971
Medium enterprise has 50 to 249 labors	16	1435
Large enterprise employs more than 250	3	2640
Total	103	5255

Source: Primary data analyzed (2020). n = 103. *) category refers to the Small Medium Enterprise (SME) size class.

All the reviewed firms have employed a total of 5,255 workforces. Naturally, the big companies led the number of employees absorption, at the number near 2,700 workers. Then followed, the medium firms occupied the workers at numbers of slightly above half of the workers compared to those in large companies. In the next position, the small enterprises hired 1,000 persons, at one-third of labourers working in big companies. Lastly, the micro-enterprises, without

employees and devoting one until nine employees, retained around 200 the employees, which at almost one-tenth of workers numbers in large companies.

Then, this study introduced the related business activities of ICT companies. This research appointed the reference from the International Standard Industrial Classification of All Economic Activities (ISIC). The surveyed companies remain in division 62, which classify the ICT companies into four business services. The ICT companies remain in class 62.01; those companies provide expertise in information technologies involving writing, modifying, testing, and supporting software. The firms offer proficiency in planning and designing computer systems that combine computer hardware, software, and communication technologies, classified in the class of 62.02. Those companies in the sub-chapter of 62.03 support on-site management and operation of customers' computer systems and or data processing services. Lastly, the enterprise relates to other professional and technical computer-related activities, categorized in sub-section of 62.09.

Table 14. The related business services of the surveyed ICT companies

Business activities	Company Category				Total
	Large	Medium	Small	Micro	
Computer programming activities (62.01)	1	10	20	13	44
Information Technology Consulting (62.02)	1	3	12	15	31
Computer Operations (62.03)	0	1	3	3	7
Other information technology service activities (62.09)	1	2	9	9	21
Total	3	16	44	40	103

Source: Primary data analyzed (2020). n = 103.

Table 14 illustrates the number of observed companies associated with the cross-tabulation between their business activities and firm classification. The ICT companies providing expertise in computer programming remained about 44 in which the small companies, with the highest value, reach half of the number in those field of business services. Then the micro and medium companies remained at 13 and 10. Meanwhile, only one large company has offered computer programming activities. This figure also persists in a similar number for a company providing Information Technology Consulting and Other Information technology services activities.

Furthermore, the ICT enterprises offering Information Technology consulting remained about 30, in which half of the figure was micro-companies. The number of small companies providing

a similar consultation was 12, which only two digits apart from micro companies' figures. Then the number of medium firms in similar skill persisted one-fourth from micro-companies.

Besides the ICT companies in Other information technology activities remained at 21, whereas small and micro firms remained similar figures at nine. The other enterprises with similar proficiency were less than equal to two. The figure for companies providing services in computer operation was lowest, at seven units. The number at three units was similar for small and micro companies, only one of the medium firm.

This study also provided an explanation of the ICT companies' types and their city location in Hungary. Figure 7 describes the types of service provided by ICT Companies and their sites in Hungary.

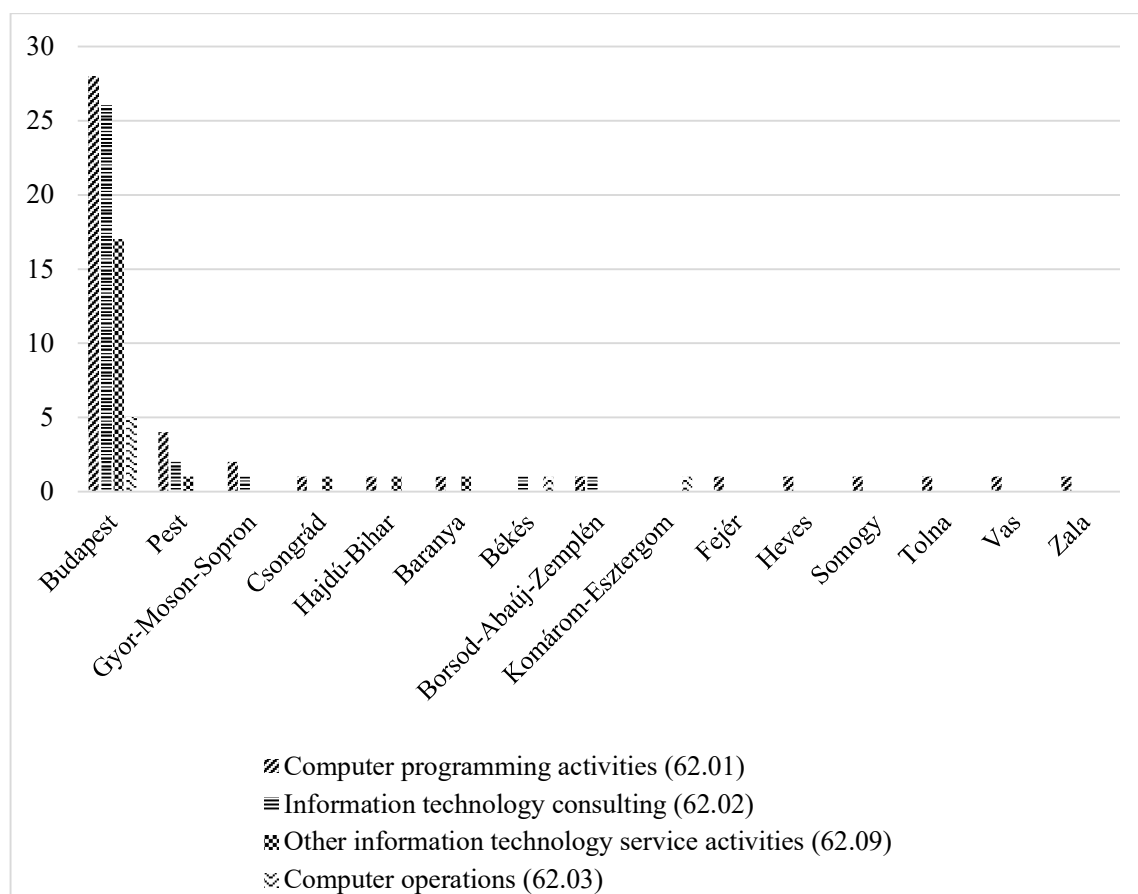


Figure 7. Companies location and business activities

Source: Primary data analyzed (2020). n = 103.

The Information and Communication Technologies (ICT) companies were located mostly in Budapest, at about 75%. Besides Budapest, those surveyed ICT firms were sited in Pest, Győr-Moson-Sopron, Csongrád, Hajdú-Bihar, Baranya, Békés, Borsod-Abaúj-Zemplén, Komárom-Esztergom, Fejér, Heves, Somogy, Tolna, Vas, and Zala. For instance, those ICT companies

offered four types of services: Computer programming activities, Consultation of Information technology, Other information technology service activities, and Computer operations.

The number of which ICT companies offering Computer programming services was the highest, at 28 units in Budapest. Those ICT companies providing similar services remained at below five units, sited in all previous cities mentioned excluding Békés, Komarom, and Esztergom. A number of those ICT Companies providing Information technology consulting in Budapest were at 26 units, which slightly two digits less than the figure of Computer programming firms established in a similar city. Those companies of Information technology consulting also exist in Pest, Győr-Moson-Sopron, Békés, Borsod-Abaúj-Zemplén, which the figures below five units. The figure of ICT companies providing Other information technology services were 17 units located in Budapest, which slightly above half of the number of Computer programming firms in a similar place. Then, the Other information technology company remains only one unit for each city or district such as in Pest, Csongrád, Hajdu-Bihar and Baranya. The number of which ICT companies providing Computer operations was lowest, at five entities in Budapest, and just one unit sited in Békés, Komarom, and Esztergom.

Capital performs a significant contribution to run the business. The founders of ICT companies considered capital sources from various resources, namely owned wealth, family member, colleagues, the loan from the bank and or venture capital, and government or European grants. When ICT corporates propose a loan from a bank or government, ICT companies requires administrative matters. The companies' founders interact with various institutions, namely government, local government, administrative institutions, and bank. The process requires trust between the founders and those various institutions. The various institutions trust in the creditors then give the loan. Otherwise, the various institutions perform professionally; thus, the owners of enterprise put in confidence.

This study revealed the capital of ICT companies from various sources, as illustrated in Figure 8.

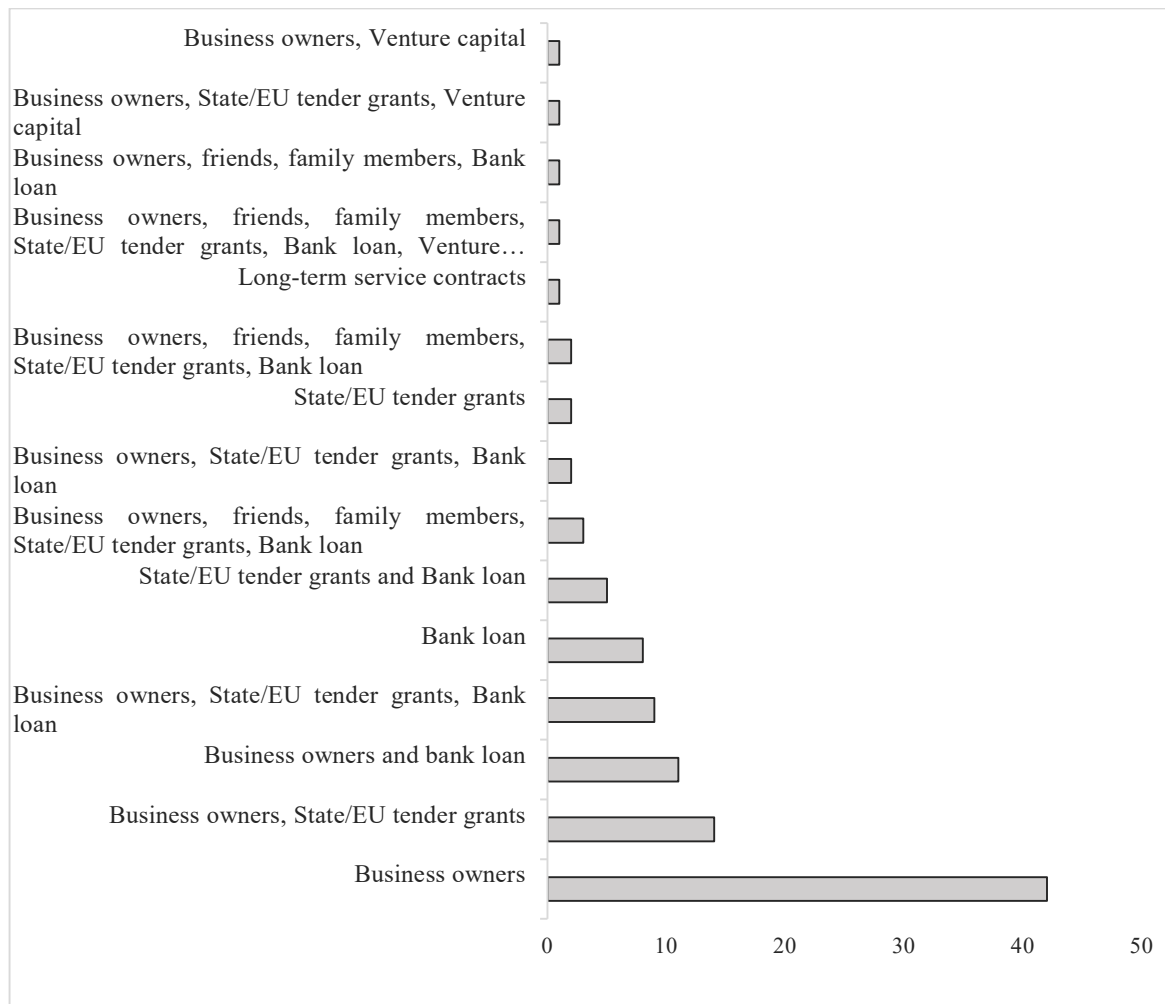


Figure 8. Various sources of capital used by ICT companies

Source: Primary data analyzed (2020). n = 103.

Figure 8 illustrates the various sources of capital employed in ICT companies. The types of capital sources came from founders, state or European Union (EU) tender grants, bank loan, friends and family members, venture capital, and long term-service contracts. ICT firms combined capital from various sources.

The highest number of capital source used by ICT companies came from business holders, reach about 42%. Then followed, a few capital sources from business founders and state tender grant reached one-third compared to the figure of business owners. The number of capital sources from business owners and bank loan remained about 10%. The percentage figure of capital from business owners, state/EU tender grants, bank loan compared to only bank loan remained similar at about 9%. The percentage of combined capital sources from state or EU tender grants and bank loan remained five percent. The other various combinations of capital sources reached number below five percent.

The ICT companies employed the capital to invest in the factory supporting the production. Then this study classified the company's age regarding the mean and standard deviation. The first class showed the number of company's age lower than the minimum average value. Then the second class was formed regarding the mean value plus-minus the standard deviation. The interval class was ten differences, relating to the rounded upwards value of standard deviation. Therefore, this study classified the ICT companies age into four class.

This study illustrated the classification of ICT companies based on age and number of firms' sites in Table 15.

Table 15. Company's establishment and own factory

Company age	Number	Factory	Figure
Between one and 10 years	13	One	65
Between 10 and 20 years	47	Two	24
Between 20 and 30 years	38	Three	7
More than 30 years	5	Four	5
		Five and more	2

Source: Own calculation data (2020). n = 103. Mean company age = 18.06. Standard deviation of firm's age = 7.141

The most surveyed companies' most figures were operating from 10 until 20 years, at 47 units. The following number of the company established among 20 and 30 years ago was a slight gap of nine units from the numbers of companies established in the last ten years. Then the ICT companies which ran business within ten years reached the figure of about 13 units. Last, only a few firms ran the business for more than 30 years.

Meanwhile, the observed ICT companies owning only one site were dominant, at 65 units. Then the ICT firms controlling two factories reached about one-third of the figures of those ICT companies possessing one factory. The ICT enterprises holding three sites were only seven units, similar in the total number of ICT companies possessing four and five and more workshops.

After that, the ICT obtained profit while conducting production within a year. This study examined the surveyed ICT firms' assets, investments, and annual return.

Table 16 illustrates the firm's profile in terms of its assets from the financial statement. This research classified the surveyed companies based on the mean value and standard deviation. The first class referred to three million Euro as the baseline from asset value in average 2.74 million Euro. The subsequent class was formed based on the average figure plus the upper number of standard deviations.

Table 16. Company's assets

Firm assets	Frequency
Less than three million Euro	81
Between three and nine million Euro	17
More than nine million Euro	5

Source: Own calculation data (2020). n = 103. Average of asset = 2.74 million Euro. Standard deviation = 6.768 million Euro.

The dominant assets owned by the companies were below three million Euro, at 81 units. The one-fifth of the majority figures were companies having assets from one to three million Euro. Finally, the company with assets more than nine million Euro were at five, which one-third from the number of firms having assets between three and nine million Euro.

This study then investigated the total assets and different size categories of the observed companies. Figure 9 describes the total assets of four companies categories in boxplot features.

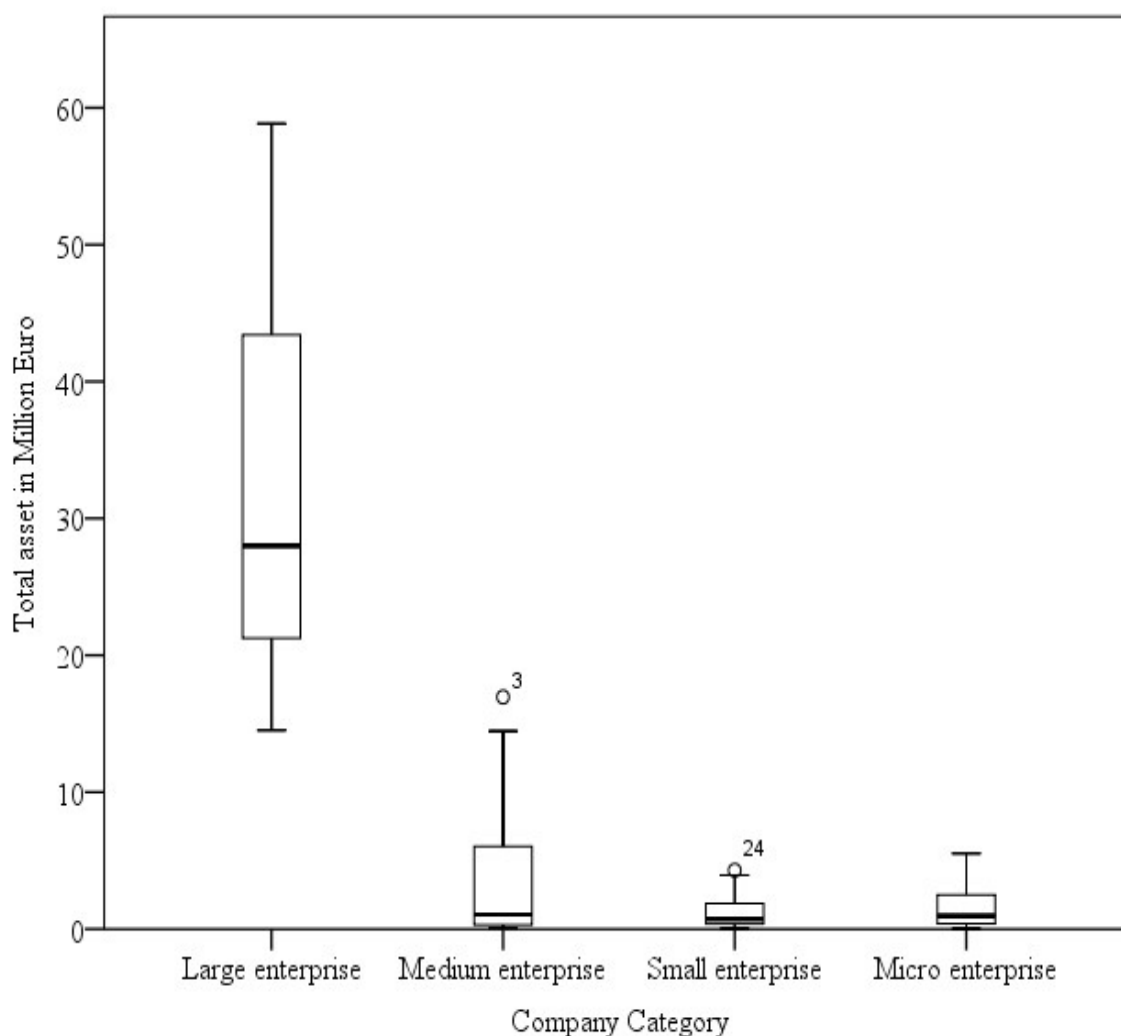


Figure 9. Total assets owned four categories of ICT companies

The value of total assets was in a million Euro. Meanwhile, the size of the ICT companies described four categories, namely, micro, small, medium, and big companies, which described in four boxplots. Each boxplot illustrates the median, middle group, upper quartile, and lower quartile group.

Indeed, large companies' median asset was near 28 million Euro, the highest, compared to the other companies' categories. The median value of asset owned medium enterprises remained about two million Euro. Small firms' median asset was about one million Euro, which was slightly below the total micro companies' assets. The total highest assets of the big companies reached about six million Euro. The lowest assets of those similar companies were about 15, which was similar to the medium firms' highest assets. The lowest value of medium enterprises' assets was similar to those lower assets of small and micro-companies. All upper quartile of the various companies groups was higher than the lower quartile groups of similar firms. Consequently, the distribution of total assets owned by all the companies was asymmetric proportion tending to the highest asset value.

The observed ICT companies developed their assets by investing in the various developments supporting business activities. Therefore, ICT obtained business growth and potential profit and in the future. Those ICT companies invested types of development in supporting future business growth in the last three years, such as:

1. Introduction, development, expansion, and other similar things related to an integrated Enterprise Resource Planning system (ERP).
2. Introduction and development of a Fleet Management System (FMS).
3. Introduction and development of technologies supporting warehouse activities, for example, a barcode system, Radio Frequency Identification (RFID).
4. IT developments to respond to customer expectations, such as interfaces, Volunteer Management Information System (VMIs).
5. Developments for risk reduction (storage and backup hardware and software tools, value protection equipment).
6. Network and multimedia development, for instance, internet bandwidth, web pages, others.
7. Hardware devices, such as Personal Computers, laptops, tablets, and others.

Otherwise, ICT companies gained prospective business growth because of their developments in the last time. The discussion continued investigating the significant correlation between the combined developments in the last three years and the current growth possibilities. This study

revealed that the relationship between combined development and growth in the ICT companies occurred significantly.

There was a significant relationship between developments' combination and potential growth within the ICT because Pearson Chi-Square's value was higher than 0.05. This finding revealed that business development correlates with combined tangible forms of capital, namely, technology, physic, labors, and finance, which in turn developed innovation prospects (LANDRY ET AL., 2002).

Table 17 describes the association between combined developments and business growth. The combined developments illustrated the surveyed companies performed at least one development and more from seven possibilities. The development then supported the potential growth of the business. ICT companies devoted particular and combined development one until seven to support the prospective growth measured in five-scale point from fully until not at all.

Table 17. Collective developments and growth within the ICT companies.

Combined developments	Growth-oriented in business					Total
	Fully	Respective	Average	Little	Not at all	
One	1	2	6	4	1	14
Two	4	11	3	1	1	20
Three	5	18	9	3	2	37
Four	3	12	6	5	0	26
Five	1	3	1	0	0	5
Six	0	1	0	0	0	1
Total	14	47	25	13	4	103

Source: Own calculation data (2020). n = 103. Pearson Chi-square sig. = 0.675

The number of ICT companies investing in three types of development was the highest, at 37. Then, those companies investing in four types of development were at 26, which is at a difference of 11 points from the highest point. Several companies spending two developments were about half of those companies investing in three developments. Many firms investing in one development reached 14 units. The rest of the companies invested in five and six developments remained the last three lowest figures.

The number of companies performing three combinations with respective growth was the highest, at 18. Then the enterprises combined two and four developments with respective growth were similar in the figure, at about 12. The number of companies accomplishing one until six development grouped in average growth was about half of the figure from companies performing similar combination grouped in respective growth. The figure for companies doing

various developments with full growth was similar to those similar companies with small growth at about 14. Finally, only four companies with one until three joint development had steady growth.

Then this study also illustrated the company's profit from the financial statement. The mean profit was 0.35 million Euro, with the standard deviation reached about 0.88 million Euro. Regarding those previous figures, this study classified the company into three groups based on the annual profit, as shown in Table 18. The first group illustrated the company obtaining profit below one million Euro, the between one and three million Euro in the second group, and above three million Euro.

Table 18. Firms' annual profit

Company's annual turnover	Number
Less than one million Euro	95
Between one and three million Euro	6
More than three million Euro	2

Source: Own calculation data (2020). n = 103. Average profit = 0.35 million Euro. Standard deviation of profit = 0.883 million Euro.

The number of those companies have obtained profit below one million Euro reached the most outstanding figure, at 95 units. The other ones have acquired turnover from one, and three million Euro remained six units. Finally, the number of observed companies obtaining a profit of more than three million Euro was one-third of the company's figure owning profit among one and three million Euro.

This study then denoted the types of observed ICT companies that obtained the profit. This study used a boxplot to describe the limits of profit obtained by four group classification of ICT companies, micro, small, medium, and large enterprise.

Figure 10 denotes the boxplots for the ICT enterprises' profit, classified from micro to large.

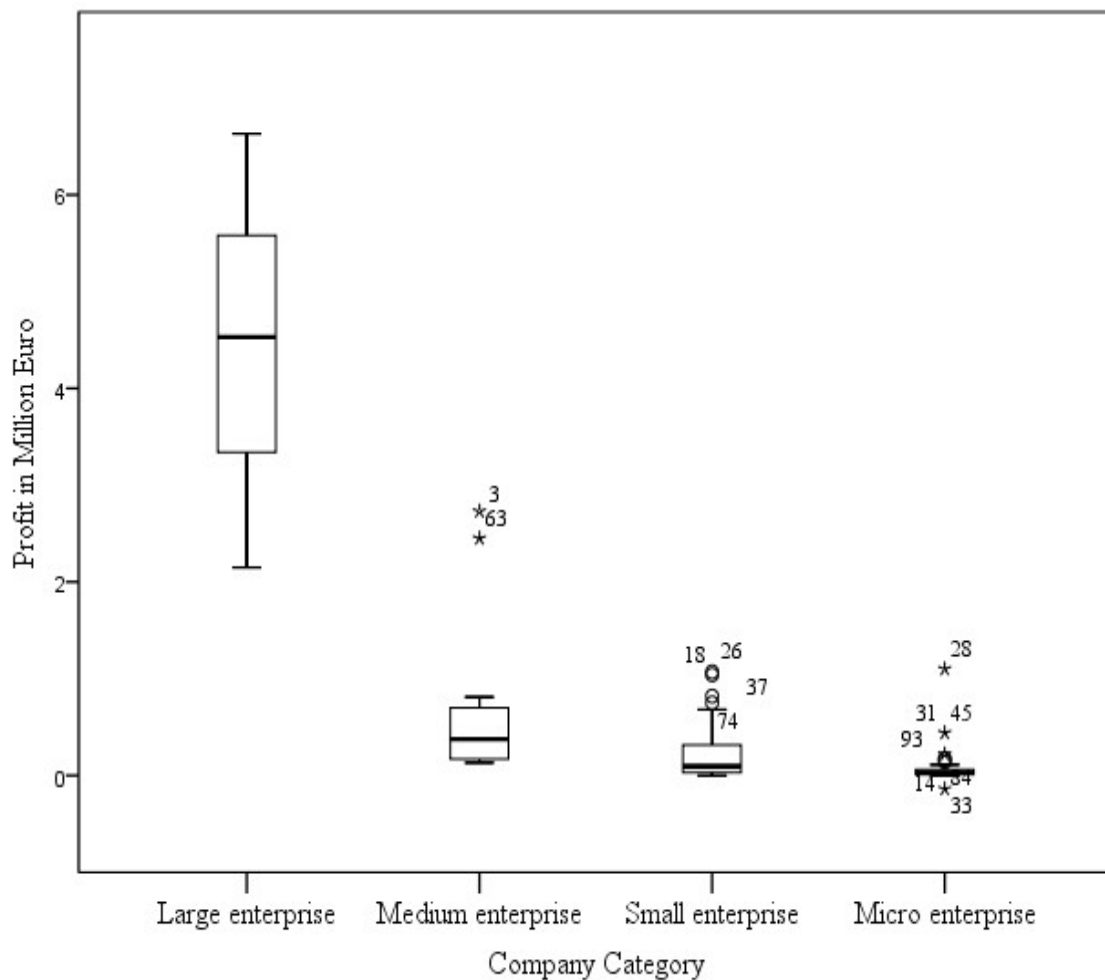


Figure 10. Annual total profit obtained by ICT companies

Naturally, the mid-value of big companies' profit was about five million Euro, which the highest among the other companies size. The profit distribution of large companies remained symmetric, which indicated normal distribution. The profit composition of median enterprise indicated top quartile was slightly higher than the bottom quartile. Meanwhile, small companies' turnover described the upper quartile group was more profitable than the lower quartile group. The profit distribution of micro-companies was not different among the upper and lower quartile group.

Initial, the lowest profit figures, the micro-companies obtained a minimal turnover of about 0.01 million Euro. Meanwhile, the small enterprises booked minimum profit slightly above the micro-ones, about 0.02 million Euro. Then the medium firms reached a minimal profit at about 0.03 million Euro. However, the large companies obtained minimal profit at above two million Euro. Subsequently the highest turnover numbers, the big companies achieved the maximal profit of about seven million Euro. The medium enterprises gained maximal profit near one million Euro.

Meanwhile, the small firms booked turnover slightly below one million Euro, at about 0.8 million Euro. Next, the micro-enterprises acquired the maximal earning, which was similar to their minimal profit, and median. The range of micro companies' was the amount of 0.01 million Euro. On the contrary, large companies' profit range was among the highest, at nearly five million Euro. Then the interval profit of medium companies remained approximately one million Euro. Lastly, micro companies' range profit was no difference, at about 0.01 million Euro.

In connection with the introduction's previous fact, about 10% of ICT companies have shut down their business (EMIS, 2020a). This study emphasized discussing data of the ICT companies with potential profit to support the analysis. This study omitted outliers of the data from 149 becoming 103 samples because about 52% of the acquired samples had achieved shortfall. This research argued that future profit led to sustaining ICT companies in the competitive market. Besides profits, ICT companies should consider investing in development to support their business.

This study summarized that the observed companies were classified into micro, small, medium, and big companies. The dominant companies observed were small and medium categories, at about 82% of total figures. Total surveyed firms absorbed nearly 5,300 employees, in which the large companies could employ half of those total labors. The most significant ICT Companies offered computer programming activities and consultation of Information technology, mostly located in Budapest. The number of ICT companies established between 10 and 30 years was dominant. The significant sources of capital came from the business founders. Mostly they have occupied assets below three million Euro and then obtained revenue under two million Euro. The combination of invested development in the last three years significantly associated the potential growth within ICT companies. The most impressive number of ICT companies generated profit below one million Euro. Naturally, the large firms obtained the highest profit, at maximal, approximately seven million Euro. Then followed, the medium enterprise acquired maximal profit near one Euro.

After discussing the respondents and company profile, this study examined the observed variables' distinct level, the outer loadings, Average Variance Explained (AVE) values, construct assessments, model evaluation, hypotheses testing, substantive impact, and types of mediating variables.

4.3 Institutional trust description

This part denoted the level of institutional trust within the observed companies. This study used discriminant analysis examining the level of trust within company sizes, from micro-companies until large firms. This study then evaluated the distinct characteristics of institutional trust within various categories of company, the discriminant functions, factor contributors, canonical structure, and classification prediction.

Firstly, this study investigated the institutional trust degree through company sizes. Table 19 provides basic descriptive statistics for the level of the indicator of institutional trust at the company sizes.

Table 19. Institutional trust level within ICT company categories

Company size	Mean		
	IT1	IT2	IT5
Large enterprise	3.333	3.333	2.333
Medium enterprise	2.937	3.125	2.875
Small enterprise	2.500	2.523	2.500
Micro enterprise	2.700	2.550	2.725

Source: Primary data analyzed (2020). n = 103. IT1 = Trust in state government, ministries, and government agencies. IT2 = Trust in state administration. IT5 = Trust in local government.

It was evident in this case that the level of trust in government and state administration within large companies were consistently higher than other types of companies. However, the level of trust in local government within the medium enterprise and micro firms was higher than other size companies. Large enterprise had the lowest level of trust in local government compared to other categories of firms.

The different extent of institutional trust's indicators within distinct groups of companies was coherent with the box test result. Table 20 shows the Box test, which indicated the within-companies class of covariance matrices were different (FIELD, 2009; HOWITT-CRAMER, 2011), due to the p-value below five percent. This result revealed that the level of institutional trust within the observed companies varied significantly.

Table 20. The Box test result

The Box Test	Figure
-2Log(M)	201.89
Chi-square (Observed value)	157.75
Chi-square (Critical value)	28.87
DF	18
p-value	< 0.0001
Alpha	0.05

Source: Primary data analyzed (2020). n = 103.

This study then produced an analysis of discriminant functions that differentiate the existing group for accounting and grouping the indicators. The discriminant functions represent a latent variable, and the correlations are loadings related to factor loadings (FIELD, 2009; HOWITT-CRAMER, 2011). Table 21 shows three discriminants function. The first discriminant was substantial as it accounts for 68 % of the reliable variance, whereas the second one was relatively small in comparison as it explains about 18 %. The last discriminant function was slightly below the second one, at about 14%.

Table 21. Discriminant functions of institutional trust and Wilks's Lambda test

Measures	F1	F2	F3	Wilks' Lambda Test	Figure
Eigenvalue	0.094	0.025	0.019	Lambda	0.875
Discrimination (%)	68.05	17.97	13.98	F-value	1.478
Cumulative %	68.05	86.02	100	p-value	0.157

Source: Primary data analyzed (2020). n = 103. df1 = 9. df2 = 236

Regarding the Wilks' lambda test, the discriminant functions were not statistically significant due to the p-value higher than five percent. Consequently, one discriminant function consisting of one factor distinguished four categories of companies.

This study then described the significant contributor of each discriminant. Table 22 shows the indicators that contributed to each discriminant function.

Table 22. Structure matrix of discriminant factors in institutional trust

Indicators of Institutional Trust	F1	F2	F3
IT1	0.444	0.198	0.874
IT2	0.707	0.562	0.430
IT5	-0.016	0.752	0.660

Source: Primary data analyzed (2020). n = 103. IT1 = Trust in state government, ministries, and government agencies. IT2 = Trust in state administration. IT5 = Trust in local government.

Trust in state administration was the most significant contributor to the first discriminant. Trust in the local government performed the dominant contributor for the second one, and trust in government and bureaucracies was the significant factor within the last discriminant. This study concluded that trust in the administrative state was substantial, contributing to about 70% of the first discriminant factor variance than other institutional trust indicators. This study implied that the companies had confidence in the state administration procedure related to business audit, tax certificate, fairness procedure, e-administration, regulation, tax reduction, automatic installment payment discount, fee, and overpayment.

Next, the discussion examined the group centroids, which illustrates the group averages of canonical variables. The canonical structure describes correlations between companies sizes and the unobserved discriminant functions (dimensions). Group centroids show how much and in what features of the companies categories are differentiated on each function. The absolute magnitude of the group centroids implies the degree to which a company size is distinguished on a function, and the sign of the centroid indicates the direction of the differentiation (FIELD, 2009; HOWITT-CRAMER, 2011).

Table 23 describes the centroids basis on the group of the company size.

Table 23. Centroids of discriminant factors within institutional trust

Types of Companies	F1	F2	F3
Large enterprise	1.272	-0.558	0.208
Medium enterprise	0.400	0.294	0.022
Small enterprise	-0.040	-0.053	-0.149
Micro enterprise	-0.213	-0.018	0.140

Source: Primary data analyzed (2020). n = 103.

The first function discriminated large and medium firms from small and micro-enterprises. Large and medium firms scored at the positive end on the first function, meanwhile the other company groups at the negative end of the similar function. The previous result implied that first function with the dominant contribution of trust in state administration differentiated between medium and big companies and micro-small firms. Second function distinguished medium companies from three other companies categories. Medium firms had a positive figure within the second function, but the others scored a similar function's negative end. This finding revealed that second function with the significant representation of trust in local government

discriminated medium enterprise from three other types of firms. Finally, third function discriminated big, medium, and micro-companies from the small corporation. The three former companies scored at the positive end, but the small enterprise scored in negative sign.

Confusion Matrix indicates the number of cases correctly and incorrectly assigned to each of the groups. Each case in the analysis is classified by the functions derived from different company size to predict others (FIELD, 2009; HOWITT-CRAMER, 2011). Table 24 denotes the confusion matrix within the case of institutional trust.

Table 24. Confusion matrix in case of a different group of institutional trust

From \ to	Large enterprise	Medium enterprise	Micro enterprise	Small enterprise	Total	Percentage correct
Large enterprise	0	0	0	3	3	0.00%
Medium enterprise	0	1	5	10	16	6.25%
Micro enterprise	0	1	15	24	40	37.50%
Small enterprise	1	0	14	29	44	65.91%
Total	1	2	34	66	103	43.69%

Source: Primary data analyzed (2020). n = 103.

The total of the precise forecast was likewise below 45%. The small firm was the most accurately predicted, at about 66%. Meanwhile, the micro corporate was less accurately predicted, at half of the percentage of the small enterprise. The medium enterprise was the lowest accurately predicted, merely about six percent.

4.4 Interpersonal trust depiction

This part designated the discriminant measure of interpersonal trust among the four types of observed companies. This section evaluated the distinct degree of interpersonal trust in four different groups, the prominent factor of contributors, canonical structure, and accurate group estimate. Initially, this study examined the interpersonal trust degree within different company categories.

Table 25 illustrates the level of indicators of interpersonal trust within four separate categories of company.

Table 25. Interpersonal trust level of ICT company size

Company size	Mean	
	IPT1	IPT2
Large enterprise	3.333	3.667
Medium enterprise	4.188	3.500
Small enterprise	4.273	4.136
Microenterprise	4.450	4.225

Source: Primary data analyzed (2020). n = 103. Trust between employees and managers (IPT1). Trust in a decisive role in creating a corporate culture and a climate of trust (IPT2).

The level of trust between the managers and the workers in the micro, small, and medium companies was higher than the level of similar trust within the big companies. The level of trust in essential policies supporting corporate culture and trust climate in small and micro firms was higher than the degree of similar trust at medium and big firms. In general, the level of interpersonal trust within different companies' size was high, the average values above three.

The box test result indicated that those of interpersonal trust were similar among the different companies class. Table 26 presents the finding, which indicated the covariance matrices of different companies types remained similar. The p-value above five percent supported the result. This study concluded that trust between the managers and the workers and trust in the companies' decisions remained high and was not significantly diverse within different companies groups.

Table 26. The box test of interpersonal trust

The Box Test	Figure
-2Log(M)	8.017
Chi-square (Observed value)	6.850
Chi-square (Critical value)	16.920
DF	9
p-value	0.653
alpha	0.05

Source: Primary data analyzed (2020). n = 103.

This study disclosed two different discriminant functions from the indicators of interpersonal trust among the surveyed companies. The first discriminant determined about 70 % of the reliable variance. The second discriminant explained the rest, as shown in Table 27.

Table 27. Discriminant factors and the simultaneous test

Measures	F1	F2	Wilks' Lambda Test	Figure
Eigenvalue	0.123	0.055	Lambda	0.844
Discrimination (%)	69.35	30.65	F-value	2.884
Cumulative %	69.35	100.0000	p-value	0.010

Source: Primary data analyzed (2020). n = 103. df1 = 6, df2 = 196.

As seen in Table 27, the discriminant factors significantly differentiate four classifications of corporates because the p-value was below five percent. This study extended the discussion of the factors contributing to each discriminant factors. This study then displayed significant contributors in Table 28.

Table 28. Structure matrix of discriminant factors of interpersonal trust

Indicators of Interpersonal Trust	F1	F2
IPT1	0.854	0.512
IPT2	0.742	-0.670

Source: Primary data analyzed (2020). n = 103. Trust between employees and managers (IPT1). Trust in a decisive role in creating a corporate culture and a climate of trust (IPT2).

First discriminant factor consisted of trust among the managers and the workers, and confidence in an important role supporting corporate culture and trust climate. Those two indicators performed a significant contributor in the first discriminant factor. The analysis of matrix structure supported the finding.

Table 29 shows the structure illustrating the correlations between the types of firms and the discriminant factors. The analysis revealed that the degree of company class was distinct in each discriminant factor. Meanwhile, the sign represented the direction of the difference.

Table 29. Centroids of discriminant factors in interpersonal trust

Types of Companies	F1	F2
Large enterprise	-1.354	-0.791
Medium enterprise	-0.479	0.428
Small enterprise	0.016	-0.114
Micro enterprise	0.275	0.014

Source: Primary data analyzed (2020). n = 103.

First discriminant factor differentiated small and micro firms from medium and big companies. Small and micro enterprises counted the positive figures at the first function, but the medium

and big corporates counted the negative numbers. This study implied that trust between the managers and the workers and trust in important policies distinguished small-micro companies from medium-big companies.

This study then investigated the correct prediction of the case from four different groups. Table 30 describes the confusion matrices, which predicting from different each group to other similar groups.

Table 30. Confusion matrix in case of a different group of interpersonal trust

From \ to	Large enterprise	Medium enterprise	Micro enterprise	Small enterprise	Total	Percentage correct
Large enterprise	1	0	0	2	3	33.33%
Medium enterprise	0	2	4	10	16	12.50%
Micro enterprise	0	1	19	20	40	47.50%
Small enterprise	0	3	15	26	44	59.09%
Total	1	6	38	58	103	46.60%

Source: Primary data analyzed (2020). n = 103.

The total percentage of accurate estimation was about 47%. The small company group was the most accurately predicted, at approximately 60%. Then, the micro firm size was the second most accurate prediction, at about 50%. The large company size was less accurate forecast than the small firm category, with half of the percentage prediction from a small corporate group. The medium company size was the lowest accurate prediction compared to the other company groups, at about 13%.

4.5 Inter-organizational trust explanation

This part assessed the diverse discriminant level of inter-organizational trust within four classifications of companies. The analysis described the level of inter-organizational trust, the notorious element of contributors, canonical structure, and precise group valuation. First, this study examined the inter-organizational trust degree within different categories of firms.

Table 31 denotes the descriptive degree of observed inter-organizational trust variables at four different groups of the company.

Table 31. Inter-organizational trust level within the distinct size of the company

Company size	Mean			
	IOT1	IOT2	IOT3	IOT4
Large enterprise	3.667	4.000	3.667	3.667
Medium enterprise	3.563	3.875	3.938	3.438
Small enterprise	3.636	3.977	3.705	2.955
Micro enterprise	3.825	3.975	3.875	3.275

Source: Primary data analyzed (2020). n = 103. IOT1 = Trust in a business partner. IOT2 = Trust in customers and clients. IOT3 = Trust in suppliers and subcontractors. IOT4 = Trust in other ICT providers.

In general, the average level of the four indicators of inter-organizational trust remained high. The degree of trust in customers and client was high at four categories of the firm, along with trust in business partners and degree confidence in suppliers and subcontractors. The degree of trust in other ICT providers was variant, with the lowest average value at small enterprises. Consequently, there was a similar covariance of those indicators; the box test was failed to be measured.

This research discovered three discriminant functions accommodating four observed variables of inter-organizational trust in Table 32. The first discriminant verified about 74% of the reliable variance. The two discriminant factors determined 26% in total.

Table 32. Discriminant functions of inter-organizational trust and the simultaneous test

Measures	F1	F2	F3	Wilks' Lambda Test	Figure
Eigenvalue	0.091	0.021	0.011	Lambda	0.887
Discrimination (%)	73.93	17.31	8.76	F-value	0.979
Cumulative %	73.93	91.24	100.0000	p-value	0.469

Source: Primary data analyzed (2020). df1 = 12, df2 = 254.

This study concluded that the discriminant factors could not differentiate four categories of firms due to the p-value of Wilks' lambda below five percent. Consequently, only one indicator in the discriminant factor differentiated the four different categories of company.

Table 33. Structure matrix of discriminant factors of inter-organizational trust

Indicators of Inter-organizational Trust	F1	F2	F3
IOT1	0.0480	0.9845	0.1147
IOT2	-0.1114	0.2161	-0.2027
IOT3	0.3408	0.1832	0.6370
IOT4	0.8835	0.2449	-0.2411

Source: Primary data analyzed (2020). n = 103. IOT1 = Trust in a business partner. IOT2 = Trust in customers and clients. IOT3 = Trust in suppliers and subcontractors. IOT4 = Trust in other ICT providers.

This study evaluated trust in other ICT companies as significant contributors to the first discriminant, as listed in Table 33. Consequently, likewise, one indicator per each discriminant factor. This study revealed that trust in other ICT providers was simply prominent contributors to first discriminant factors. Then trust in business partners was the only significant contributors to second discriminant factor. Trust in suppliers and subcontractors contributed significantly to a third discriminant factor.

Table 34 shows the structure illustrating the correlations between the types of firms and the discriminant factors. The analysis revealed that the degree of company class was distinct in each discriminant factor. Meanwhile, the sign represented the direction of the difference.

Table 34. Centroids of discriminant factors in inter-organizational trust

Types of Companies	F1	F2	F3
Large enterprise	0.5627	-0.0065	-0.5566
Medium enterprise	0.4689	-0.2214	0.0762
Small enterprise	-0.3064	-0.0709	-0.0176
Micro enterprise	0.1073	0.1670	0.0306

Source: Primary data analyzed (2020). n = 103.

First discriminant factor that distinguished micro, medium, and big companies from small firms counted the positive numbers. Second discriminant factor separated micro-firms from others, reckoned the positive figures. The last discriminant factor differentiates the group into bipolar sides. The first side was accounted for positive for micro and medium business, and the other side was scored negative for small and big companies.

This study also examined the precise forecast of cases from four distinct categories of company. Table 35 displays precise prediction as follow.

Table 35. Confusion matrix in case of a different group of inter-organizational trust

From \ to	Large enterprise	Medium enterprise	Micro enterprise	Small enterprise	Total	Percentage correct
Large enterprise	0	0	3	0	3	0.00%
Medium enterprise	0	1	9	6	16	6.25%
Micro enterprise	0	0	21	19	40	52.50%
Small enterprise	0	0	16	28	44	63.64%
Total	0	1	49	53	103	48.54%

Source: Primary data analyzed (2020). n = 103.

The total correct estimation was about 50%. The small firms were the most precisely projected, at about 64%, followed the micro-companies was about 53%. Meanwhile, the medium enterprises were the slightest estimated.

4.6 Innovation level

This section reviewed the varied discriminant level of innovation at four categories of corporates. The review described the innovation comparison, important contributed indicators, canonical structure, and accurate classification prediction. In the beginning, this study investigated the innovative level of different kinds of companies.

Table 36 shows the innovative level of the surveyed firms at different groups of corporates.

Table 36. Innovation level at a distinctive group of company

Company size	Mean			
	IN1	IN2	IN4	IN5
Large enterprise	4.000	3.333	3.333	3.667
Medium enterprise	4.000	3.937	3.687	3.562
Small enterprise	3.525	3.775	3.200	3.250
Micro enterprise	3.795	3.864	3.727	3.636

Source: Primary data analyzed (2020). n = 103. The degree of innovation of products and services (IN1). Level of customization to distinct customers' requirements (IN2). Higher level of innovative method compared to rivals (IN4). Higher level of innovative new procedures and system compared to competitors (IN5).

The innovation degree of products and services within medium and large companies were higher than small and micro firms. Micro, small, and medium corporates performed higher-level customized products and services than the big companies. Then, micro and medium enterprises applied innovative method better than small and big companies. Last, the big companies had innovative procedures and system higher than other categories of corporates.

Regarding the box test, this study revealed that the innovation level was distinct among the separated corporate size. As shown in Table 37, the p-value of chi-square was below five percent. As a result, the covariance of innovation level at four group firms was significantly different.

Table 37. The box test of innovation degree

The Box Test	Figure
-2Log(M)	201.351
Chi-square (Observed value)	143.105
Chi-square (Critical value)	43.773
DF	30
p-value	< 0.0001
alpha	0.05

Source: Primary data analyzed (2020). n = 103

This study concluded that each group of firms had different variance and distinct expertise at a different level of innovation indicators.

Then, the analysis grouped the indicators of innovation into three discriminant factors. Each discriminant factor had determined the percentage of reliable variance.

Table 38. Discriminant factors of innovation degree and the simultaneous test

Measures	F1	F2	F3	Wilks' Lambda Test	Figure
Eigenvalue	0.086	0.037	0.015	Lambda	0.8746
Discrimination (%)	62.30	26.87	10.83	F-value	1.1011
Cumulative %	62.30	89.17	100.00	p-value	0.3595

Source: Primary data analyzed (2020). n = 103. df1 = 30. df2 = 186

Table 38 denotes that the first discriminant verified about 62% of the reliable variance, then the second one discriminated the reliable variance at approximately 27%. The last discriminant explained the rest figure of reliable variance. However, this study revealed that the discriminant group could not differentiate four categories of firms because the p-value was higher than five percent. Consequently, only one indicator could contribute to a discriminant factor.

Table 39 describes the structure of contributors in different discriminant factors. The first discriminant factor was significantly contributed likewise by the innovative degree of products-services. The higher level of innovative method contributed to the second discriminant factor. Lastly, the capability of customizing products within different customers contributed significantly to the third discriminant factor.

Table 39. Structure matrix of discriminant factors of innovation level

Indicators of Inter-organizational Trust	F1	F2	F3
IN1	0.8075	-0.2728	0.3000
IN2	0.1530	0.3855	0.6908
IN4	0.8528	0.4969	0.0880
IN5	0.6574	0.1837	-0.3313

Source: Primary data analyzed (2020). n = 103. The degree of innovation of products and services (IN1). Level of customization to distinct customers' requirements (IN2). Higher level of innovative method compared to rivals (IN4). Higher level of innovative new procedures and system compared to competitors (IN5).

This study revealed that three discriminant factors could differentiate the four categories of corporates, as illustrated in Table 40.

Table 40. Centroids of discriminant factors of innovation

Types of Companies	F1	F2	F3
Large enterprise	0.3317	-0.8341	-0.4247
Medium enterprise	0.3095	-0.1817	0.2199
Small enterprise	-0.3568	-0.0323	0.0111
Micro enterprise	0.1892	0.1523	-0.0611

Source: Primary data analyzed (2020). n = 103.

First discriminant factor recognized micro, medium, and big companies from small corporations weighed the positive numbers. Second discriminant factor divided micro-firms from others, reckoned the positive figures. The final discriminant factor made different the group into bipolar sides. The positive side was accounted for small and medium business, and the negative polar was intended for micro and large corporations.

Table 41. Confusion matrix in case of a different group of innovation

From \ to	Large enterprise	Medium enterprise	Micro enterprise	Small enterprise	Total	Percentage correct
Large enterprise	0	0	1	2	3	0.00%
Medium enterprise	0	0	6	10	16	0.00%
Micro enterprise	0	0	22	18	40	55.00%
Small enterprise	0	0	13	31	44	70.45%
Total	0	0	42	61	103	51.46%

Source: Primary data analyzed (2020). n = 103.

This study observed the precise evaluation of the four groups of observed corporations. As shown in Table 41, the total accurate estimation was about 52%. Whereas the small firms were

the most precisely estimated, at about 70%, followed the micro-companies was 55%. Meanwhile, the medium and big enterprises were not specific predicted.

4.7 Financial performance analysis

This section examined the varied discriminant level of financial performance at four categories of corporates. The financial performances reflect profitability measures in terms of Return on Assets (ROA), Return on Equity (ROE), Return on Capital Employed (ROCE). The review described a comparison of the profitability measures, crucial impacted indicators, canonical structure, and truthful category estimate. In the beginning, this study investigated the profitability measures within distinct sorts of firms.

Table 42. Profitability measures at a distinctive group of company

Company size	Mean		
	ROA	ROE	ROCE
Large enterprise	7.973	13.643	10.680
Medium enterprise	12.021	25.962	29.150
Small enterprise	9.896	17.050	19.481
Micro enterprise	9.680	19.663	24.015

Source: Primary data analysed (2020). n = 103. ROA = Return on Assets. ROE = Return on Equity. ROCE = Return on Capital Employed.

Table 42 denotes the average profitability ratio at four types of firms. Overall, medium enterprises obtained the highest average value of ROA, ROE, and ROCE consistently compared to other categories of the firm. However, the big companies achieved the lowest average figures of all the profitability measures among the firm's categories. The lowest profitability measures at the big companies indicated they invested numerous assets, had enormous equity, owned high current liabilities, and suffer the massive burden of the operational cost to generate profit. The important note was that the average figures of those profitability measures at small and micro companies were higher than the big companies due to their few assets, less equity, less current liabilities, and minimal operational cost to make a profit.

The Return on Assets (ROA) figure describes how effective the business can convert the money invested into net income. The higher the ROA number is better because the company generates more net income on less investment. As shown in Table 42, medium enterprises had invested each Euro in assets generated about 12 cents of net income. Meanwhile micro and small companies made a net income of about 10 cents each Euro invested in their assets. Big companies generated net income of about eight cents per one Euro of the assets.

Return on equity (ROE) indicates how valuable the firm makes profits on the investment received from its shareholders. The denominator derives from a company's assets minus its liabilities. Medium companies had the highest ROE, at 25.32, which indicated that medium firms efficiently applied the shareholders' investment to generate additional revenues. That was every Euro invested in medium firms, and investors would generate about 25 cents. The second prospective investment was at micro corporates, which made a profit of about 20 cents each Euro capitalized. The small firms generated a profit of about 18 cents each one Euro. Then big companies made a return of about 14 cents per one Euro.

After all, this study likewise examined the Return on Capital Employed (ROCE), which derives from Earning before Interest and Tax (EBIT) obtained from capital employed. EBIT describes how much a company gains revenues from the operational cost before interest and tax payment. EBIT originates from venues subtracted by the cost of goods sold and operating expenditures. Medium enterprise had the highest ROCE, at nearby 30 on average, which indicated those companies generated thirty cents of profit each one Euro of capital employed. Consequently, the medium enterprise had better profitability than other categories of firms. Micro enterprises obtained ROCE at nearby 24 on average, which revealed those firms made twenty-five cents per one Euro of capital employed. Small enterprises owned ROCE at approximately 20 on average, which showed the ability to book profit of twenty cents each one Euro of capital employed. Then, the big companies could merely obtain ten cents of profit each Euro of capital employed, deriving from ROCE value was ten on average.

Besides, this study did not examine the Box test. As a result, this study could not differentiate the variance of each category of the company's financial indicators. This result implied that the indicators of financial performance, namely ROA, ROE, and ROCE, were similar in variance among the observed company groups.

Table 43 illustrates three discriminant factors, as shown in Table 43. The first discriminant factor could determine about 60% of the reliable variance. The second discriminant then explained approximately 34% of the reliable variance, and the third one determined the rest figure.

Table 43. Discriminant factors of financial performance's indicators and the simultaneous test

Measures	F1	F2	F3	Wilks' Lambda Test	Figure
Eigenvalue	0.0590	0.0326	0.0045	Lambda	0.9104
Discrimination (%)	61.4547	33.8874	4.6579	F-value	1.0320
Cumulative %	61.4547	95.3421	100.0000	p-value	0.4151

Source: Primary data analyzed (2020). n = 103. df1 = 9. df2 = 236

This study revealed that only one indicator could contribute to each discriminant factor due to a p-value above five percent. It concluded that each discriminant factor only consisted of one indicator.

Table 44. Structure matrix of discriminant factors of profitability measures

Indicators of Institutional Trust	F1	F2	F3
ROA	0.2044	0.4155	0.8863
ROE	0.5750	0.7114	0.4041
ROCE	0.7851	0.4708	0.4025

Source: Primary data analyzed (2020). n = 103. ROA = Return on Assets. ROE = Return on Equity. ROCE = Return on Capital Employed.

This study revealed that ROCE contributed significantly to the first discriminant factor, as listed in Table 44. Then ROE was the main contributor to the second discriminant factor. Last, ROA performed a prominent contributor in the third discriminant factor.

Table 45. Centroids of discriminant factors within profitability measures

Types of Companies	F1	F2	F3
Large enterprise	-0.9017	0.3771	-0.2494
Medium enterprise	0.1876	0.3706	0.0428
Small enterprise	-0.1964	-0.0761	0.0553
Micro enterprise	0.1718	-0.0913	-0.0488

Source: Primary data analyzed (2020). n = 103.

Table 45 shows the centroids of three discriminant factors. The first discriminant distinguished between micro and medium firms and small and big companies on the opposite side. The second discriminant factor posited medium and big corporates at a positive edge, while micro and small firms in different polarities. Lastly, the third discriminant factor separated into bipolar sides, a positive path for small and medium enterprises, then a negative direction for micro and large corporates.

Decisively, this study examined the precise estimation within the four groups of observed companies. Table 46 describes that the ratio of observed firms' ratio was well classified over the total number of observations. That total forecast was here equal to about 45%. The small and micro firms were the most accurately projected, at about 60% in micro firms, then 50% at the small corporates. Meanwhile, the medium corporates were the least accurate figure, at 6%.

Table 46. Confusion matrix in case of different groups of profitability

From \ to	Large enterprise	Medium enterprise	Micro enterprise	Small enterprise	Total	Percentage correct
Large enterprise	0	0	3	0	3	0.00%
Medium enterprise	0	1	7	8	16	6.25%
Micro enterprise	0	0	23	17	40	57.50%
Small enterprise	0	2	20	22	44	50.00%
Total	0	3	53	47	103	44.66%

Source: Primary data analyzed (2020). n = 103.

4.8 Outer loading and average variance explained analysis

This section examined the intended model concerning the outer loading factors and the Average Variance Explained (AVE) values supporting the partial least square structural equation model.

This study obtained the critical indicators of each latent variable included in the final analysis. The institutional trust had three formative indicators, followed interpersonal trust indicated two formative constructs. Inter-organizational trust designated four significant indicators in reflective measure. Then innovation likewise revealed four reflective constructs. Ultimately, the financial performance consisted of three formative indicators.

Later, this study evaluated each latent variable's number of indicators to obtain the best model by examining the outer loading factors and AVE value. The outer loadings should have 0.708 as the rule of thumb value. Besides, the construct should also meet a minimum value of AVE, at 0.5, which represents at least 50% of its indicator variance. The scientific reason for the outer loading and AVE values was illustrated as follow.

The outer loadings estimate the relationships between the indicators and determine their absolute contributions to assign the latent variables in reflective or formative measures. The amount of the outer loading, which is also generally described as indicator reliability, should be 0.708 as a common rule of thumb or higher. The justification of this rule denotes the square of a standardized indicator's outer loading, refer to the communality of an indicator. Outer loading of standardized indicator represents the level of the variation, in which an item is described by the construct and is defined as the variance obtained from the item. A standard

value of 0.708 explains a latent variable of each indicator's variance, generally at least 50%. The value of 0.708 also implies that the variance shared between the construct and its indicator is larger than the measurement error variance. The prominent note, 0.70 counted close enough to 0.708 is the appropriate rule of thumb (HAIR ET AL., 2016; HAIR ET AL., 2019).

The average variance extracted (AVE) evaluates the convergent validity of the latent variable. It is the level to which a latent construct elucidates the variance of its indicators. AVE defines the primary average value of the squared loadings of the indicators associated with the construct. An AVE figure of 0.50 or higher specifies that, on average, the indicator explains more than half of the variance of its constructs. On the contrary, an AVE value below 0.50 indicates that, in average, more variance persists in the imprecision of the items than in the variance explained by the construct (HAIR ET AL., 2016; HAIR ET AL., 2019).

Table 47 illustrates the significant indicators of the final observed variables used in the analysis. This study then examined the outer loading values of all indicators as follow.

Table 47. Significant indicators of latent variables

Latent variables	Indicators	Outer Loading	AVE
Institutional trust (IT)	Trust in state government, ministries, and government agencies (IT1).	0.926	0.148
	Trust in state administration (IT2).	0.917	
	Trust in local government (IT5).	0.882	
Interpersonal trust (IPT)	Trust between employees and managers (IPT1).	0.805	0.640
	Trust in a decisive role in creating a corporate culture and a climate of trust (IPT2).	0.805	
Inter-organizational trust (IOT)	Trust in a business partner (IOT1).	0.650	0.500
	Trust in customers and clients (IOT2).	0.744	
	Trust in suppliers and subcontractors (IOT3).	0.807	
	Trust in other ICT providers (IOT4).	0.683	
Innovation (IN)	The degree of innovation of products and services (IN1).	0.862	0.662
	Level of customization to distinct customers' requirements (IN2).	0.659	
	Higher level of innovative method compared to rivals (IN4).	0.876	
	Higher level of innovative new procedures and system compared to competitors (IN5).	0.847	
	Return on Assets (ROA) (FP1).	0.879	
Financial performance (FP)	Return on Equity (ROE) (FP2).	0.973	0.760
	Return on Capital Employed (ROCE) (FP4).	0.953	

Source: Own calculation data (2020). n = 103.

Trust in government, ministries, government agencies, confidence in state administration, and trust in the local government had a high absolute contribution to assigning institutional trust due to all the outer loadings being higher than 0.708 of standard figure. The average variance value is 0.148, which indicates that the average variance was not precise to assign institutional trust.

Interpersonal trust had two significant indicators with the highest level of trust between employees and the manager, followed by trust in decisive policy within the internal company. Two indicators illustrate the high absolute contribution to ascribe interpersonal trust with the AVE value, at 0.6, higher than the standard thumb. Therefore, the observed variables of interpersonal trust could explain precisely interpersonal trust, regarding more than half of the high variance as the significant indicators.

The inter-organizational trust had four significant indicators due to the value of outer loadings above 0.7 of trust in customers and client, and confidence in suppliers and contractors, then the value of similar loadings at nearby 0.7 for trust in business partners and other ICT providers. Four indicators describe high absolute support to assign inter-organizational trust because the AVE values are 0.5, also meet the minimal value.

Innovation level of products or services, innovative method, new procedures, and the new system had outer loadings above 0.7, which implied that those variables significantly represent the innovation. Meanwhile, the company's capability to customize product or service to distinctive customers had a similar loading at nearly 0.7, which performed as a significant construct. Altogether, those high associated indicators had a high absolute role in assigning innovation because the AVE value was 0.662, higher than 0.5 of the standard value.

Return on Assets (ROA), Return on Equity (ROE), and Return on Capital Employed (ROCE) assign formatively financial performance. All the indicators significantly indicated the profitability due to their outer loadings higher than 0.7. Then they also appointed a highly fundamental part to manifest financial performance. Three indicators, consisting of ROA, ROE, and ROCE, revealed high absolute contribution to delegate financial performance due to the AVE value of 0.760 above 0.5 as the minimal figure.

4.9 Constructs assessment

This part evaluated the constructs measurement and structural model. First, this study analyzed the measurement of the construct regarding the types of formative and reflective indicators. The assessment of reflective constructs discloses reliability, validity, variances of the indicators, and collinearity. Meanwhile, the evaluation of formative constructs identifies reliability, convergent

validity, collinearity, and significant weight (RAVAND-BAGHAEI, 2016; HAIR ET AL., 2019). After the evaluation of the constructs, this study also investigated the structural model relating to the goodness of fit, the path coefficient of regression, coefficient of determination, and mediation path analysis (TENENHAUS ET AL., 2005; HAIR ET AL., 2019).

This study formed institutional trust, interpersonal trust, and financial performance composed of formative indicators. Consequently, the constructs of those three latent variables should accomplish requirements of reliability, convergent validity, collinearity, and significant weight. Meanwhile, this research formed inter-organizational trust and innovation, which reflected their indicators. The assessment of reflective constructs should achieve prerequisites of the reliability, validity, collinearity, and variances of the indicators.

The first assessments investigated the reflective indicators of inter-organizational trust and innovation. Table 48 depicts the figures of observed variables, values of, Dillon-Goldstein (D.G.) rho, Average Variance Extracted (AVE), and Variance Inflation Factor (VIF). Those of the values, as mentioned above, are used to support examination of the constructs. The CA and D.G. rho values indicate reliable and consistent constructs. Meanwhile, the VIF value reveals the collinearity level of the indicators.

Table 48. Observed variables, Cronbach's alpha (CA), Dillon-Goldstein (D.G.) rho and Variance Inflation Factor (VIF) Summary

Latent variables	Indicators	CA	D.G. rho	VIF
IPT	2	0.46	0.79	1
IOT	4	0.70	0.82	1.021
IT	3	0.89	0.93	1
IN	4	0.83	0.89	1
FP	3	0.93	0.95	1.005

Source: Primary data analyzed (2020). n = 103. IPT = Interpersonal trust, IOT = Inter-organizational trust, IT = Institutional trust, IN = Innovation, FP = Financial performance.

At this point, this study also checked the internal reliability ratio with CA. Table 48 displays that the CA coefficients of inter-organizational trust and innovation were greater than 0.7 of the standard value. This study also indicated that the value of D.G. rho for inter-organizational trust and innovation above 0.7 as the rule thumb. Definitely, this study concluded that the indicators of inter-organizational trust and innovation achieved internal consistency and unidimensionality. The internal reliability indicated the constructs of those two latent variables were sufficiently consistent, constructing the two unobserved variables. Then unidimensionality described the observed variables of inter-organizational trust and innovation

reflected their indicators. Besides, the uni-dimensionality illustrated that inter-organisational trust indicators had a strong association with each other and signified as a single concept. Similarly, the constructs of innovation had a similar interpretation.

Later, the constructs of inter-organizational trust and innovation had VIF values below three, as displayed in Table 48. Consequently, those two latent variables' indicators met the non-collinearity assumption, which indicated the indicators had not correlated with each other.

The subsequent evaluation of the reflective indicators concentrated on examining the convergent validity of the constructs. This study indicated that the AVE values for inter-organizational trust and innovation were higher than 0.5. Therefore, this study concluded that inter-organizational trust and innovation met the convergent validity, which clarified their constructs, explaining at least 50% of the variance. Then, the final evaluation was the measurement of discriminant validity. The requirement is the AVE value of a construct greater than the highest correlation of any other constructs. Here, Table 49 denotes the comparison between the AVE values and the correlation of their constructs.

Table 49. Squared correlations of the latent variables

Indicators	IT	IPT	IOT	IN	FP
IT	1	0.0275	0.1104	0.0142	0.0002
IPT	0.0275	1	0.0560	0.0025	0.0000
IOT	0.1104	0.0560	1	0.0005	0.0353
IN	0.0142	0.0025	0.0005	1	0.0370
FP	0.0002	0.0000	0.0353	0.0370	1
AVE	0.1481	0.640	0.500	0.662	0.760

Source: Primary data analyzed (2020). n = 103. IPT = Interpersonal trust, IOT = Inter-organizational trust, IT = Institutional trust, IN = Innovation, FP = Financial performance.

This study clarified that inter-organizational trust and innovation reflected the discriminant validity because those indicators' AVE values were higher than any correlations with any other constructs, as depicted in Table 49. It also indicated that constructs degree of inter-organizational trust and innovation were empirically distinguished from other constructs in the structural model.

To conclude, inter-organizational trust and innovation indicators passed the requirements such as reliability, validity, collinearity, and variances of the indicators to perform as reflective indicators.

This study also examined institutional trust, interpersonal trust, and financial performance as formative constructs. The evaluation of formative indicators comprises reliability, convergent

validity, collinearity, and significant weight (RAVAND-BAGHAEI, 2016; HAIR ET AL., 2019). The first evaluation was to identify the internal reliability of the constructs. The D.G. rho values of constructs of institutional trust, interpersonal trust, and financial performance were higher than 0.7 as the minimal value, as shown in Table 48. Therefore, this research assumed that the indicators of those latent variables were internal reliable consistent. The internal reliability clarified that the constructs of institutional trust, interpersonal trust, and financial performance significantly explained the degree of their variance consistently.

This study then examined the convergent validity of the constructs of institutional trust, interpersonal trust, and financial performance regarding the value of each construct's outer loading factor, as listed in Table 47. This study noticed that the indicators of institutional trust, interpersonal trust, and financial performance had outer loading factors above 0.8, higher than 0.7 as the standard point. As a result, this research revealed that all constructs of those three unobserved variables completed the convergent validity requirement, which explained the degree of formative indicators of institutional trust, interpersonal trust, and financial performance correlated positively with other formative constructs at those three latent variables.

Then, all the indicators of institutional trust, interpersonal trust, and financial performance had the Variance Inflation Factor (VIF) value below three, as shown in Table 48. This study concluded that the aforesaid measured variables did not correlate with each other. It implied that those three observed variables met a non-collinearity assumption.

Finally, this research examines the significance of the weight dimension of IT, IPT, and FP. Table 50 depicts the summary of weight dimension, which are the primary standard to evaluate each indicator's relative significance in formative measurement models. The significant weight dimension refers to the critical value is positioned between the lower and upper bound. This research examined that all the measured variables of institutional trust, interpersonal trust, and financial performance are significant except IPT1. Significant indicator weight indicates the constructs have good measurement quality as the formative indicators (RAVAND-BAGHAEI, 2016; HAIR ET AL., 2019). However, the nonsignificant indicator weight does not represent imperfect measurement. In this situation, this study still retained IPT1. This study argued IPT1 contributed significantly to IPT, with 0.805 of the loading factor value above 0.7 as the rule thumb. Therefore, this study interpreted IPT1 was as critical but not as relatively important.

Table 50. Weights dimension of the indicators

Latent variable	Indicators	Standard error	Critical ratio (CR)	Lower bound (90%)	Upper bound (90%)
IT	IT1	0.8450	-1.4082	-1.6051	1.0555
	IT2	0.5041	-0.6059	-1.0364	0.6939
	IT5	1.0375	1.2367	-1.3784	1.5603
IPT	IPT1	0.4416	1.7406	-0.4647	1.0354
	IPT2	0.4933	0.9166	-0.5846	1.0373
IOT	IOT1	0.1693	1.6337	-0.0058	0.5307
	IOT2	0.1764	2.9894	0.1985	0.7444
	IOT3	0.0906	4.7592	0.2508	0.5675
	IOT4	0.1957	0.3296	-0.2772	0.3747
IN	IN1	0.1622	1.5086	-0.0872	0.4745
	IN2	0.3218	0.6386	-0.2152	0.9311
	IN4	0.2004	1.9260	-0.1378	0.6175
	IN5	0.2417	1.5254	-0.1822	0.5286
FP	FP1	0.8614	-0.1082	-1.0938	1.6428
	FP2	1.3457	-0.0902	-2.0778	2.6717
	FP4	1.0706	1.1000	-1.4695	2.2002

Source: Own calculation data, (2020). n = 103. IPT = Interpersonal trust, IOT = Inter-organizational trust, IT = Institutional trust, IN = Innovation, FP = Financial performance.

To sum up, the constructs of institutional trust, interpersonal trust, and financial performance accomplished the criteria in terms of reliability, convergent validity, collinearity, and significant weight. As a result, the constructs of those three latent variables could provide formatively measures.

4.10 Structural model assessment

This section explained the evaluation of structural model regarding the model fit, hypotheses testing, the coefficients of determination (R^2), the effect size (f^2), and predictive relevance (Q^2), and types of mediating variables.

This study revealed that trust in government, ministries, and government agencies (IT1), confidence in state administration (IT2), and trust in local government (IT5) performed formatively to assign institutional trust (IT). Meanwhile, trust between employees and the manager (IPT1), merely with the trust in decisive policy within the internal company (IPT2) functioned formatively to represent interpersonal trust (IPT). Otherwise, inter-organizational trust (IOT) reflected four prominent constructs, namely, trust in business partners (IOT1), belief in customers and client (IOT2), confidence in suppliers and contractors (IOT3), and faith in other ICT providers (IOT4). Innovation (IN) reflected the constructs: innovative level of

products or services (IN1), the capability of customizing product or service to distinctive customers (IN2), innovative method (IN4), higher innovative level of new procedures, and new system (IN5). Finally, Return on Assets (FP1), Return on Equity (FP2), and Return on Capital Employed (FP3) formatively designated financial performance (FP).

The proposed model in this study described the outer model and inner model. The outer model illustrated the association between the latent variables, namely institutional trust, interpersonal trust, inter-organizational trust, innovation, and financial performance. Meanwhile the inner model illustrated the associations between latent variables and their constructs. This study likewise performed the assessments that all latent variables' constructs completed the scientific requirements as reflective or formative measures. This study concluded that the indicators of inter-organizational trust and innovation passed the requirements as reflective constructs. The constructs of institutional trust, interpersonal trust, and financial performance achieved the principles to perform formatively measures. Therefore, this research illustrated the outer and the inner model representing the model in this study in Figure 11.

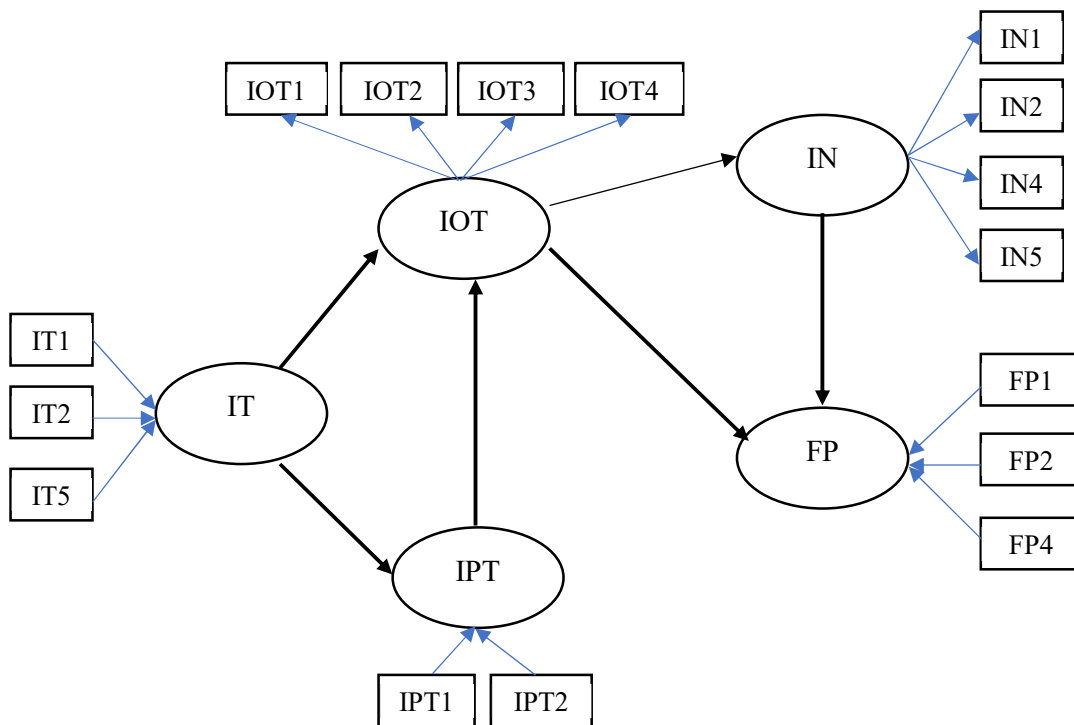


Figure 11. Inner model and outer model of this study

This research then examined the structural model relating to the inner model and outer model. The examination implemented the Goodness of Fit (GoF) to assess the inner and outer model. Table 51 illustrates the result of GoF test.

Table 51. The Goodness of Fit (GoF) test

Model	GoF	GoF (Bootstrap)	Standard error	Critical ratio (CR)
Outer model	0.88	0.84	0.059	15.17
Inner model	0.66	0.67	0.061	10.73

Source: Own calculation data, 2020. n = 103.

The goodness of fit (GoF) indicates an overall measure of model fit for PLS-SEM (HAIR ET AL., 2016; HENSELER-SARSTEDT, 2013). The suggested cut-off point is 0.70 (RAVAND-BAGHAEI, 2016; SANCHEZ ET AL., 2013). This study had a good outer model because the value of GoF in this model was 0.88. Therefore this study concluded that the directions between the latent variables were good. Besides, this research obtained a good inner model due to the value of GoF, at about 0.7. Thus, the good inner model represented the good associations between latent variables and their indicators.

4.11 Hypotheses testing

This section illustrated hypotheses testing. The purposes of this current study were to investigate the following hypotheses:

1. Institutional trust is positively related to empowering interpersonal trust (H1).
2. Institutional trust is positively related to enhancing trust in partners (H2).
3. Interpersonal trust has a positive effect on inter-organizational trust (H3).
4. Inter-organizational trust has a definite direction to financial performance (H4).
5. A higher level of trust in a partner may ignite innovation (H5).
6. Innovation may enhance financial performance (H6).

Table 52 shows the results of the regression path and coefficient of determination. The results appeared to make sense and to be compatible with this study's expectations.

Table 52. Hypotheses testing and coefficient determination (R²)

Hypothesis	Coefficient	t-stat	Probability	Predictor(s)	Outcome	R ²
H1: IT → IPT	0.166	1.690	0.094**	IT	IPT	0.028
H2: IT → IOT	0.301	3.212	0.002*	IT and IPT	IOT	0.144
H3: IPT → IOT	0.187	1.989	0.049*	IOT	IN	0
H4: IOT → FP	0.184	1.903	0.060**	IOT and IN	FP	0.071
H5: IOT → IN	0.023	0.227	0.821			
H6: IN → FP	0.188	1.953	0.054**			

Source: Primary data analysed, 2020. n = 103; *) significant below 5%. **) significant lower 10%. IT = Institutional trust, IPT = Interpersonal trust, IOT = Inter-organizational trust, IN = Innovation, FP = Financial Performance.

Statistical analyses were performed, applying a significance level of 0.05 and 0.10. The probability of the first hypothesis is below 10%. Thus, this first hypothesis was accepted. This result displayed a significant positive relationship between institutional trust and interpersonal trust. This finding emphasized that trust in institutions enhanced interpersonal trust (LEVI, 1996; BREHM-RAHN, 1997). However, this result was in contrast with the finding of LIM ET AL. (2016). In this study, trust in government, state administrations, the local government increased trust between colleagues within the company. Therefore, this finding implied a significant relationship that trust in government made better trust between the employees and the managers. Regarding the value of the coefficient of determination, trust in institutions explained the proportion of interpersonal trust variance about three percent, on average.

The second proposed hypothesis, stating a positive direction between trust in institutions and inter-organizational trust, was accepted due to the probability below five percent. This result revealed that trust in institutions strengthened confidence among the company and its partners and simplified the business collaboration. This finding confirmed the conclusion from KIKUCHI (2008) that trust in government is a prominent factor in establishing whether the business relationship can reach the agreement to have a more accessible and more cooperative control organization. Impartial and trustworthy public administration stimulates communal trust and establishes a decent climate in business. Besides, some government's policies encourage trust between the companies and their partners (FULMER, 2012), which in turn develop further corporates collaboration (SMITH ET AL., 1995; AJMAL ET AL., 2017), reduce dispute and long-standing business bond (AJMAL ET AL., 2017). The result obtained here had implications for understanding that trust in institutions generated inter-organizational trust because some government's policies support a favorable environment for business relationship and collaboration. This study disclosed an exciting finding, as it was contrary to which postulate came from RIM-DONG (2018). They argued that a particular country deteriorated low trust in institutions and business. However, this study revealed that trust in institutions strengthened trust between firms and their partners.

The third hypothesis's probability value remained below 0.5; thus, this study accepted the positive relationship between interpersonal trust and inter-organizational trust. This finding was consistent with the findings of ZAHEER ET AL. (1998). This result highlighted the positive direction between interpersonal trust and trust in business partners. The trusted manager, as the representation of the company, improves trust between the company and its partners. This result reflected that inter-organizational trust came from the interpersonal trust between the manager and the closed manager from other company's partner.

This study also pointed out that the simultaneous determination of trust in governments and interpersonal trust clarified about 15% of inter-organizational trust variance, on average. This result represented a noteworthy actuality in Hungary which has a modest extent of trust, according to SROKA, (2011) and NAGY ET AL. (2016). In the social capital theory, this result emphasized that entities link to others encouraged social capital.

The next hypothesis, propositioning the positive connection between inter-organizational trust and financial performance, was admitted. The convinced contextual indicates illustrated the probability value was 0.06, below 10%. Financial performance, here in this study, characterized profitability by ROA, ROE, and ROCE. It was unsurprising to find a significant relationship between trust in business partners and financial performance. This result also validated with the results stated by FANG ET AL. (2008), MOELLER (2009), GAUR ET AL. (2011), WEI ET AL. (2012), BIEN ET AL. (2014), and SHAHMEHR ET AL. (2015). In the framework of transaction cost, trust in business partners provides managing transaction cost, namely searching cost, negotiating fee, and controlling cost. Meanwhile, the company could optimize the asset to support production. As a consequence, production optimizations while reducing total cost provides prospects to enhance the profit. Consequently, this result opposed to PALMATIER ET AL. (2018), trust in business partners concerned incoherently on business performance. Furthermore, this study had a paradox with previous studies from MOELLER (2009), and AL-HAKIM-LU (2017), in which trust in business partners does not modify business performance.

Then, this study failed to prove the positive relationship between trust in business partners and innovation. This result contrasted with the studies from CORSTEN-FELDE (2005) and TSAI ET AL., (2013), they validated that trust in business partners has a positive relationship on innovation. Finally, the direction between innovation and financial performance was accepted. This result supported primary findings from ZAHEER ET AL. (1998), and VACCARO ET AL. (2010). Inter-organizational trust and innovation determined about seven percent of the variation of financial performance. Extending the result, trust in business partners encouraged effective knowledge exchange, which improved innovation (BIEN ET AL., 2014). The previous argument was consistent with FAWCETT ET AL. (2012), who claimed that sharing knowledge encourage entities boosting cooperation, innovation, and competitive performance. Furthermore, inter-organizational trust encourages the companies and their business partners to commit their endeavors to perform innovation prospects by enriching their assurance to the innovation (TSAI ET AL., 2013). In conclusion, inter-organizational trust had a positive connection with innovation (WANG ET AL. 2012).

4.12 Substantive impact and effect size

This study proved that the effect of integrative trust could enhance financial performance. Besides, this part analyzed the influence of types of trust and innovation to financial performance. PLS-SEM provides substantive impact with f^2 . The f^2 value represents the evaluative process to measure the essential impact of the latent variables in the model, which consist of exogenous and endogenous constructs (RAVAND-BAGHAEI, 2016; HAIR ET AL., 2019).

Table 53 summarizes the degree of substantive impact from the path directions of this study's model. This result revealed two noticeable impacts on the relationship between institutional trust, interpersonal trust, and inter-organizational trust. First, institutional trust had a slight impact on interpersonal trust. Meanwhile, institutional trust had a higher impact on inter-organizational trust. This result disclosed that government performance had a modest impact on enhancing individual trust. However, government policies and function supported an essential impact on inter-organizational trust between ICT companies and their partners. This study argued that Hungarian government policies had more impact on the business relationship between the ICT companies and their partners rather than personal trust within the companies, which these previous arguments supported the prior studies investigated by PUTNAM (1995), LEVI (1996), and BREHM-RAHN (1997). The impact relationship between personal trust and inter-organizational indicated small influence. This result described that individuals trust their close business partner in a particular affiliation, not all the relationship.

Table 53. Substantive impact

Path direction	f^2	Substantive impact
IT → IPT	0.0283	Small
IT → IOT	0.1032	Nearly medium
IPT → IOT	0.0396	Small
IOT → IN	0.0005	none
IN → FP	0.0381	Small
IOT → FP	0.0362	Small

Source: Primary data analyzed (2020). n = 103. IT = Institutional trust, IPT = Interpersonal trust, IOT = Inter-organizational trust, IN = Innovation, FP = Financial Performance.

This study considered that inter-organizational trust had no impact on innovation because of insignificant hypothesis testing. The small impact between innovation and financial performance illustrated that only particular ICT companies had performed innovation to support financial performance. This result supported the previous scholars supporting the significant

role of innovation on financial performance. Finally, inter-organizational trust had a modest impact on financial performance. In this context, ICT companies trusted specific business partners. As a result, it might lead to financial performance.

Table 54. Effect size

Latent variable	Mean Redundancies Q^2	Types	Effect Size
IT	Not revealed	Exogenous	-
IPT	0.0175	Endogenous	Small
IOT	0.0719	Endogenous	Small
IN	0.0003	Endogenous	Small
FP	0.0535	Endogenous	Small

Source: Primary data analyzed (2020). n = 103. IT = Institutional trust, IPT = Interpersonal trust, IOT = Inter-organizational trust, IN = Innovation, FP = Financial Performance.

Table 54 illustrates the effect size using the cross-validated redundancy in which symbolized by Q^2 values. In the structural model, Q^2 values were larger than zero, for a specific reflective endogenous latent variable, indicated the path model's predictive relevance for a particular dependent construct. This finding showed that the latent variables had an analytical consequence as the dependent structures. This study implied that interpersonal trust, inter-organizational trust, innovation, and financial performance had modest predictive relevance as the endogenous variables.

4.13 Types of mediating variables

After discussing the substantive and effect impact, this study also investigated the model's direct and indirect effect. This study had two types of moderating variable. First, interpersonal trust as a mediating variable empowered the direction of institutional trust on inter-organizational trust. Then, innovation was proposed as a mediating variable to enhance inter-organisational trust's impact on financial performance. This study scrutinized the significance of direct, indirect, and total effect to justify the role of interpersonal trust and innovation, as shown in Table 55.

Table 55. Direct and indirect effect of observed variables

Direction	Effect	Value	Significance of Coefficient	Justification the mediating variable
IT → IPT → IOT	Indirect	0.0012	All coefficients are significant.	Complementary (partial mediation)
IT → IOT	Direct	0.1001		
	Total	0.1013		
IOT → IN → FP	Indirect	0	The direction of inter-organizational trust on innovation was not significant. The relationship innovation to financial performance was significant. The relationship inter-organizational trust on financial performance was significant.	Direct only (no mediation)
IOT → FP	Direct	0.0345		
	Total	0.0345		

Source: Primary data analyzed (2020). n = 103. IT = Institutional trust, IPT = Interpersonal trust, IOT = Inter-organizational trust, IN = Innovation, FP = Financial Performance.

Interpersonal trust had a role as a complementary mediating variable. It implied that interpersonal trust had a complementing effect with institutional trust. Interpersonal trust had significantly mediated the direction of institutional trust to inter-organizational trust. This study argued that a trusted manager representing a company performed as a mediating agent to build trust between the companies and their business partners (ZAHEER ET AL., 1998). Meanwhile, innovation failed to mediate the direction of inter-organizational trust on financial performance. However, in a simultaneous direction, innovation improved financial performance as well as inter-organizational trust. This study implied to consider the alternative variables which replaced or empowered innovation in the next research. This research proposed the upcoming research variables, such as knowledge sharing commitment adopted from KITCHELL (1995), FAWCETT ET AL. (2012), and BIEN ET AL. (2014).

4.14 Implication for theory and practices

This work was novel in describing a new perspective of integrative trust to improve financial performance. This study confirmed the previous studies, which argue that institutional trust contributed to enhancing interpersonal trust and inter-organizational. Then interpersonal trust also performed as a complementary mediating variable to influence inter-organizational trust,

which in turn to improve financial performance. Although this study did not support the direction inter-organizational trust on innovation, this study exposed that innovation improved financial performance.

This study extended the discussion of trust as consolidative social capital to improve financial performance further. A coincident trust supported business which further explanation that institutional trust as an external cause strengthened interpersonal trust in an internal company. The institutional trust also strengthened the confidence between the company and business partners to support collaboration. Then inter-organizational trust improved financial performance. This study also explained the research gap that trust in partners had a positive effect on business performance. Besides, this study also supported previous scholars who argued that innovation improved financial performance.

According to the indicators that had high factor loadings, this research initially recommended that firms and managers consider taking note to maintain interpersonal trust in developing trust between staff and supervisors, together with the connection among the shareholders and management. Managers should maintain confidence between employees and their colleagues (DAVIS ET AL., 2000; OLÁH ET AL., 2017). Trust among the employees creates the effectiveness and cohesiveness of the company organization. The staffs and their partners work together as a team, share information, engage over rights and responsibilities, and cooperate. Trust between the employees and workmates develop full talented capability. As a result, the company could reach its significant objectives accurately. Hence, the managers should have a significant role to create a conducive corporate culture to support the climate of trust within a company (SANKOWSKA, 2013). The managers should develop interpersonal trust as an essential part to provide influential corporate culture providing a sense of trustworthiness. Consequently, the employees sense securely to speak openly, conquer appropriate consequence and reveal liabilities to achieve the company's targets.

Another recommendation is that the manager should enhance customers and clients' confidence level because they are the foremost resources. Without them, the business would not run well without their endeavors. The company should retain the clients and develop a mutually beneficial relationship with them by approaching trust. When the customers keep trust, the company increases the business reputation and provide value-added to the clients. Besides, the company also should emphasis to maintain trust in suppliers because the firm acquires genuine benefits. Trusted suppliers' relationship provides the company with to access potential resources. The contractors support the company's production from committed service, favored

price, and exceptional stipulations. As a result, the company minimizes the external transaction cost to enhance the manufactures.

In line with the high interpersonal trust, trust in clients, and suppliers, the company also should innovate the products and services competed to the rivals. Innovation is one decisive concern of the company in the growth and synchronization in the challenging market (DABIJA ET AL., 2017). Relating to those mentioned earlier, the firm develops innovation by implementing a new method and novel procedures or system to accomplish its targets. As a result, practical innovation enhances productivity and thereby raise profitability, as supported in this study. Finally, the most affected profitability of the innovation was implied in the ROA, ROE, and ROCE, which was verified in this study.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

This research illustrated the effect of integrative trust on financial performance through innovation as a mediating variable in Figure 12, as follow.

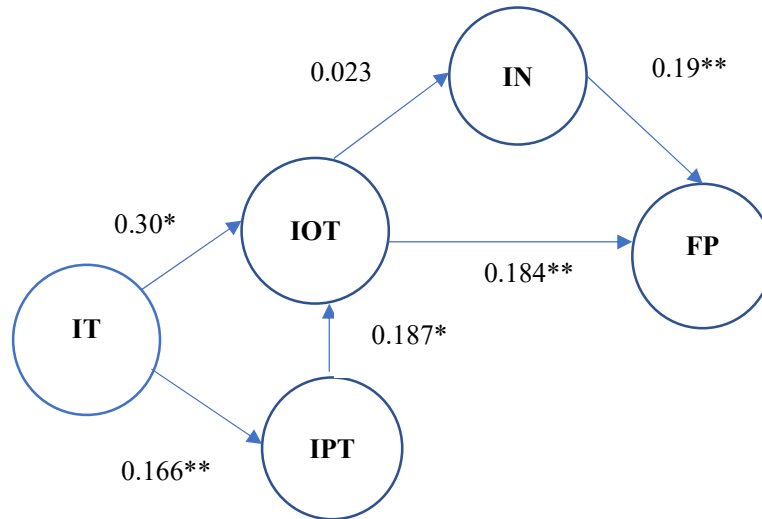


Figure 12. Effect of integrative trust, innovation, and financial performance.

n = 103; *) significant below 5%. **) significant lower 10%. IT = Institutional trust, IPT = Interpersonal trust, IOT = Inter-organizational trust, IN = Innovation, FP = Financial Performance.

This study contributed to literature combined with a few extents. First, this research established a strong, positive relationship between institutional trust and interpersonal trust, confirming institutional trust as a guarantee and developer of the internal business climate within a company. The result demonstrated that institutional trust had a positive effect on interpersonal trust within the company. From a social capital perspective, the institutional trust encouraged managers and employee to perform organized more positively to achieve collective purposes. The institutional trust simplified the internal coordination and cooperation between the manager and employees for mutual advantage (PUTNAM, 1995). The finding of this study confirmed previous observations that confidence in institutions influenced interpersonal trust (LEVI, 1996; BREHM-RAHN, 1997). This result related to the strong relationship in which a higher level of institutions' performance would indicate an increase in interpersonal, previously explored by BREHM-RAHN (1997). The result of this study was not comparable to the result from LIM ET AL. (2016), who investigated the path of interpersonal trust on trust in institutions.

In this research, institutional trust revealed about three percent variability in interpersonal trust. Therefore, this research considered the low coefficient determinant for this relationship proved that there might be other factors beyond trust in institutions essential to nurturing interpersonal trust. Two studies carried out the sources of interpersonal trust within the company in terms of cognitive base and affective basis of trust. For instance, MCALLISTER (1995) examined that consistent colleague responsibility of accomplishment significantly influenced interpersonal trust from a cognitive base factor. He also revealed that frequent relations, partner affiliates connection act, and social responsibility manners of associate subordinate fostered interpersonal trust in the perspective of affective-based trust. Next, COSTIGAN ET AL. (1998) also exposed correspondingly that dyadic connection, enthusiasm, confidence, manners of personal initiative, career promotion system and objective assessment, and adequate remuneration in work reward determined interpersonal trust in the perspective of affective-based trust.

Furthermore, this study confirmed a positive correlation between trust in institutions and inter-organizational trust. This study implied that trust in institutions supported trust between the companies and their partners through abridging business cooperation. This finding supported KIKUCHI (2008), who discovered that trust in government performed as an important factor simplifying the business entities reaching the agreement. Fair and reliable public administration inspires business trust and establishes a conducive business climate. Besides, some government's policies inspire inter-organizational trust (FULMER, 2012), then boost cooperation (SMITH ET AL., 1995; AJMAL ET AL., 2017), diminish doubt and long-term business affiliation (AJMAL ET AL., 2017). This study contributed to better insight into whether trust in institutions enhanced trust in business partners because some government's policies sustain a conducive business relationship and collaboration. This study revealed an exciting finding of trust in institutions affecting trust in a business partner. Trust in institutions reinforced trust between companies and their associates. However, this result was a paradox with a postulate from RIM-DONG (2018), low trust in government had a linear cause of low trust in business.

The following significant result disclosed the impact of interpersonal trust on inter-organizational trust. This research revealed the significance of interpersonal trust to enhance trust in business partners. This result supported the experiment of ZAHEER ET AL. (1998) about the micro-macro inter-organizational network. The connection between the manager and his/her partners is usually set up through informal interpersonal relationships (INKPEN-TSANG, 2005; SROKA, 2011). Then, the connectivity between managers and corporate

affiliates developed relationship engagement (INKPEN-TSANG, 2005). As a result, the manager on behalf of the company trusts directly in the inclusive approach partners. Inter-organizational trust originates from an interpersonal relationship between the manager and his/her associates, which was explained as follow. During this time, the recurrent affiliation between two representatives of each company matures more secure and steadier in creating engagement of collaboration (ZAHEER ET AL., 1998). The result displayed that interpersonal and inter-organizational trust were correlated. This connection affected cooperation processes (ZAHEER ET AL., 1998), assists in partnership and diminish the transaction cost (NIAZI-HASSAN, 2016). The company increases the production throughout the partnership with the business partners from the transaction cost perspective as the internal exchange cost surpasses external exchange cost. Indeed, trust between organizations improves the flexibility of mutual relationships. Inter-organizational trust also shortens adaptation time, improves product and process quality, reduces the cost of coordination activities (SMITH ET AL., 1995), lessens the uncertainty of cooperation and notably diminishes the interaction cost (MU ET AL., 2008).

This research accordingly validated that interpersonal trust completely mediated the influence of institutional trust on inter-organizational trust. This study reinforced that interpersonal trust had a role as a complementary mediating variable. This outcome supported previous research from BREHM-RAHN (1997), which revealed that trust in government and various institutions could simplify interpersonal trust to perform essential business collaboration.

Likewise, this research emphasized the simultaneous determination the institutional trust and interpersonal trust strengthen inter-organizational trust by about 15%. It might be a remarkable reality in a country with a low extent of trust as Hungary (SROKA, 2011). Undeniably, other factors connected to reinforce the intra-organizational trust are also revealed in previous studies, such as reliability and integrity, qualities related to consistency, competency, honesty, fairness, responsibility, helpfulness, and benevolence (MORGAN-HUNT, 1994). Besides, knowledge intensity and uncertainty also affect trust in business partners maturity (GAUR ET AL., 2011).

The relationship between inter-organizational trust and business performance extended debated result among scholars. This study measured financial performance as the proxy of business performance. As expected, this study supported previous scientific scholars, for instance, FANG ET AL. (2008), MOELLER (2009), GAUR ET AL. (2011), WEI ET AL. (2012), BIEN ET AL. (2014), and SHAHMEHR ET AL. (2015). They argued that inter-organizational trust enhanced financial performance.

The company expands the production by comparing internal exchange cost and external exchange cost in a transaction cost perspective. In the term of collaboration, the company

predicts the external exchange cost less than internal exchange cost. Therefore, the benefit in enhancing production surpasses the external exchange cost such as searching cost, negotiating fee, and monitoring cost. In this context, trust performs as hierarchical governance to push the partners accomplishing the agreement (TSAI-GHOSHAL, 1998; GALFORD-DRAPEAU, 2003; INKPEN-TSANG, 2005) to support the company's production. As a result, improving production while minimizing cost improves sales and the profit-related with financial performance. The finding of this research supported substantially the previous results that a higher level of trust in the partner (GALFORD-DRAPEAU, 2003) had a definite impact on the direction of business performance (DAVIS ET AL., 2000; DYER-CHU, 2003; ALLEN ET AL., 2018; IANCU-NEDELEA, 2018).

On the other hand, this study's result contradicted with scholars such as trust in the companions also had an inconsistency effect on company performance (PALMATIER ET AL., 2018). Besides, confidence in the business partner did not directly affect business performance (AL-HAKIM-LU, 2017). However, this result reversed with MOELLER (2009) revealed that trust was not clarified to affect financial performance.

The next result of this study did not support the proposed hypothesis that inter-organizational trust had a positive influence on innovation. Comparing to the result from CORSTEN-FELDE (2005) and TSAI ET AL., (2013), there was a contradictive direction between trust and innovation. As an extended discussion, this research considered that other factors affect innovation directly besides trust in partners. Previous scholars argued that budget on research and development (CAPON ET AL., 1992), inter-functional coordination and human resource practices (SUSENO-RATTEN, 2007), rapid response to information from the marketplace, science, and technology (DARROCH-MCNAUGHTON, 2002) encouraged innovation level. This study also considered the intermediate factors such as working in partnership with international customers, using technology to disseminate knowledge, responding to knowledge about technology, and being flexible and opportunistic (KITCHELL, 1995).

The later result of this study indicated that innovation was significantly associated with financial performance. This result was essentially confirmed in research of VACCARO ET AL. (2010), and ZAHEER ET AL. (1998). Besides innovation, this study also decided that strategic relevance and participation in the network has a significant impact on financial performance (MOELLER, 2009). Indeed, quality improvement and cost improvement are equally significantly, interrelated to financial performance (MAIGA-JACOBS, 2007). This research proposed that innovation mediated the direction between intra-organizational trust and financial performance. However, Innovation collapsed to mediate the direction of inter-organizational

trust on financial performance. As a significant point, this study uncovered that inter-organizational trust and innovation clarified about seven percent of the variability in financial performance. From the perspective of social capital, this study got along with a significant pathway that trust and trustworthiness positively associate with resource exchange and combination. Then, resource exchange and the combination create value for the firm through a significant, positive effect on product innovations (TSAI-GHOSHAL, 1998). Besides, this study also backed that social capital enhances business knowledge and innovation performance in similar European countries such as Denmark, Ireland, and Wales (COOKE-WILLS, 1999).

ICT Corporates can sustain in a disruptive era through strategic approaches as follow. ICT companies should set up their resources, processes, and values to confront the newcomers who emerging new types of innovations. ICT firms should innovate to develop products or services to obtain potential profit then sustain in the competitive market (CHRISTENSEN, 1997, 2006). This study revealed that Hungarian ICT corporates had a high degree of innovation of products and services, a high level of an innovative method, and supported with a high level of innovative new procedures and system. Consequently, Hungarian ICT firms would sustain in a disruptive era by offering innovative products or services to their best customers for alluring potential profit margins. Besides, ICT companies should precisely offer competitive price, the performance of products or services, and market demand (ADNER, 2002). Those previous strategies could support ICT firms encounter challenges of the emerging disruptive technologies in a disruptive era. This study's finding correspondingly implied that the company should develop shared relationship bonds, trust in partners, and mutuality significantly associated with knowledge sharing intention to perform innovation (AKHAVAN-MAHDI HOSSEINI, 2016) to contend in business pressure amid a disruptive era.

5.2 Recommendations

This section discussed the recommendation regarding the value of factor correlation of each indicator which had a high factor correlation, which implied an indicator was remarkable.

Firstly, trust in state government, ministries, government agencies state administration and confidence in the state were significant indicator which assigned trust in institutions. Meanwhile trust in state administration, as a dominant distribution function, distinguished between medium and medium firms from small and micro-companies. Therefore, this study recommended that the state government provide exceptional public administration services among different categories of companies.

Subsequently, this study recommended expanding trust between employees and employers and the interaction between the managers and shareholders within the companies. Confidence amongst the employees generates the effectiveness and cohesiveness of the business organization. The workers and their colleagues work collectively as a team, communicate information, participate over dues and duties, and helped each other. Trust between the staffs and colleagues ignites their competency. The managers should maintain interpersonal trust providing engagement and a sense of dependability. In turn, the employees feel confident communicating freely, taking an appropriate concern, and exposing responsibilities within the workplace. Then, the managers should perform competently to establish a conducive corporate culture, which affecting reliance climate.

In inter-organizational trust, the manager should enhance customers and clients' confidence level because they are critical resources. Without them, the companies could not run the business well. Besides, the company should also emphasise maintaining trust in suppliers because the suppliers support significant resources in establishing continuous production. The companies will obtain genuine benefits from the contractors, who perform service, affordable price of inputs, and excellent supplies.

Finally, the company also should perform innovation prospects to compete in a disruptive era because innovation would improve business growth and anticipating the volatile market. To develop innovation, the firm should innovate continuously unique processes or systems, further develop innovative products and services, and apply an up-to-date approach. As a result, potential innovation improved profitability related to ROA, ROE, and ROCE, which validated this research.

5.3 Limitations of the study

This research had many limitations, as listed following.

1. This research opted the Information and Communication Technology (ICT) Companies as a significant part of the Hungarian Information and Communication sector, which shared barely five percent of total shares. This study realized that the dominant sector, namely the manufacturing sector, could be a compelling case, then the result might be distinctive.
2. This study likewise investigated the case of ICT companies; thus, the findings could not generalize the level of trust, innovation, and financial performance at other various types of corporates. This study evaluated the ICT companies in one European country;

consequently, the findings could not compare to the condition in other European countries, Asian nations, African states, and American countries.

3. The literature review of this study did not compare the advantage and disadvantage of previous perspectives to conclude new insight, which supported this research. The literature review part merely examined the existing ideas which corroborate this study.
4. The study examined the respondents before the pandemic come; hence the result did not reflect the pandemic situation and not predict the observed variables within the pandemic period. The sample size of micro, small, medium, and large companies were not proportional; thus, this study did not precisely examine the company's different categories. Otherwise, the result of the discriminant analysis was not accurately predicted.
5. The issues measuring the level of trust, innovation, and financial in this study remained questionable. This research composed the survey adopting many various manuscripts without considering the most cited and consistent results of the previous notable articles. Those problems were reflected in the findings of this study. First, the Average Variance Extracted (AVE) Value of institutional trust was below 0.5. Then, coefficients of the institutional trust, interpersonal trust, and inter-organizational trust were small effect. Finally, the figures of coefficient determination (R^2) were below 20%. However, this study argued that a small value of R^2 indicating the relative explanation of theoretical path, not the absolute prediction degree.
6. This study failed to prove the relationship between inter-organizational trust and innovation. This study recommended that furthering research would explore the additional variables that might enhance inter-organizational trust and innovation. This study advised that future study would compare the integrative trust of the companies in the developed countries with those companies located in developing nations.
7. This study focused on the ICT companies generating profit but not evaluated those companies obtaining the loss. This research likewise investigated the level of trust rather than the distrust level that occurred in business. This study could not scrutinize the backward level of trust turning to a degree of distrust within the observed companies
8. The recommendations within this study were not yet practically evaluated within condition before and after the pandemic. Then it would be an appealing path to further investigations.

6. MAIN CONCLUSIONS AND NOVEL FINDINGS OF THE DISSERTATION.

This study discussed the main conclusion and proposed the novel findings as follow:

1. This study revealed a good outer model which described the association of integrative trust, innovation, and financial performance. Integrative trust consisted of institutional trust, interpersonal trust, and financial performance. Besides, this study discovered a good inner model, which represented the significant correlations between the indicators and the latent variables. This study investigated a model consisting of latent variables combined in formative and reflective indicators. Trust in government, ministries, government agencies, confidence in state administration, and trust in regional authority accomplished formatively to designate institutional trust. Meanwhile trust between employees and the manager, with the trust in crucial policy at the internal company, operated formatively to signify interpersonal trust. Otherwise, inter-organizational trust significantly exhibited four prominent indicators, explicitly trust in business partners, confidence in customers and client, belief in suppliers and contractors, and trust in other information and communication technology providers. Likewise, innovation signified its constructs, such as degree innovation of products or services, the expertise of modifying products or services to distinguish the customers, innovative system, higher innovative level of new procedures, and a new system. Definitively, Return on Assets, Return on Equity, and Return on Capital Employed formatively indicate financial performance.
2. This study provided a fuller discussion of the concept of a coincident trust. Institutional trust intensifies interpersonal trust and trust in business partners, which interpersonal trust performed as a moderating variable between trust in institutions and inter-organizational trust. The most exciting finding in this study was the impact of institutional trust on inter-organizational trust higher than institutional trust's influence on interpersonal trust. This result implied that government policies and function encourage a more critical impression in a business relationship between the companies and their partners rather than interpersonal trust in the companies. Then, this study's finding was critical because institutional trust and interpersonal trust concurrently enhance inter-organizational trust. On average, the concurrent determination of trust in governments and interpersonal trust clarified about 15% of the variance of inter-organizational trust's variance. This result represented a noteworthy actuality in

Hungary, which had a modest extent of trust. However, this research failed to support the influence of trust in business partners on innovation.

3. This study disclosed that inter-organizational trust improved financial performance. Inter-organizational trust had a significant impact on financial performance. This study extended the contribution to fulfilling the research gap by supporting that trust in business partners positively affected financial performance as a proxy of business performance. Finally, this study suggested three crucial implications. The first point is that the manager should pay attention to developing interpersonal trust and a confidence climate to support employees' work effectiveness. With the subsequent recommendation, the company should maintain trust in customers and suppliers as the primary assets and resources access. Finally, trust in business partners and innovation support profitability.

SUMMARY

The Hungarian Information and Communication Technology (ICT) sector performed a critical role in the economy, and support other sectors, namely manufacturing, wholesale and retail trade, public administration, real estates, and transportation, to perform e-business. ICT sector contained about 1400 Information and Communication Technology (ICT) companies, absorbed 60,304 labors, and generated the best profit of nearly seven million Euro. They contested in the competitive market; thus, about 10% of the ICT companies were liquidated in the preceding two years. Consequently, ICT company should accomplish efficiency production, develop trusted collaboration, and improve innovation to achieve profit to survive in a disruptive era.

Some scholars argued that trust supports efficiency within the internal organization and simplifies interpersonal relations and internal integration. A trusted network with the business partners likewise supports production, in turn, enhances business performance. The companies and their partners develop trust, then provide possibilities of knowledge exchange and access to substantial resources, which affect innovation prospects. This research discovered a research gap that the connection between interpersonal trust and business performance is still elusive. Some scholars examined that interpersonal trust had a positive influence on business performance. However, other researchers explored that interpersonal trust did not affect business performance. Regarding the relationship between intra-organizational trust and business performance, most cohort probes revealed a positive association between inter-organizational trust and business performance. However, some academics revealed the negative direction between trust in business partners and business performance.

Meanwhile, the direction of institutional trust on company performance, there is a debatable finding. Some researchers revealed that trust in institutions and trust in business partners positively influenced business performance. On the contrary, trust in institutions and stakeholders had a negative impact on the company's profitability. From the evaluation of the distinct outcomes, this is the most crucial argument to assume that limited interest examines the relationship between interpersonal trust, inter-organizational trust, institutional trust and business performance concurrently. Therefore, this study raised an inquiry on how the combined effect of trust in government and the inter-organizational trust involving interpersonal trust. Then, this research proposed whether trust in government improved interpersonal trust and trust between the corporations and business partners. Next, this study pursued a query about whether inter-organizational trust encouraged innovation. This research similarly appeared a probe whether the inter-organizational trust boosted financial performance.

This research had three purposes deriving from the previous questions. First was to analyze the direction of institutional trust to interpersonal trust and inter-organizational trust. Second, this study observed the effect of interpersonal trust to empower inter-organizational trust. The final goal was to examine inter-organisational trust's direction to financial performance through innovation as a mediating variable.

This study proposed six hypotheses regarding the previous research questions below.

1. Institutional trust is positively related to empowering interpersonal trust.
2. Institutional trust is positively related to enhancing trust in partners.
3. Interpersonal trust has a positive effect on inter-organizational trust.
4. Inter-organizational trust has a definite direction to financial performance.
5. The higher level of trust in a partner may ignite innovation.
6. Innovation may enhance financial performance.

This study recently conducted an online survey by submitting a questionnaire to company founders and or managers as critical informants and respected sources. This research obtained 149 samples from 250 questionnaires. Then, this study excluded outliers from previous samples, and it finally used 103 sample size. This research also used the financial statement to evaluate the profitability ratio. This research applied PLS-SEM to examine the hypotheses.

The most important representations of the respondents were fellows having major stocks, 47 years old on average, fluently at least two foreign languages, and with about 13 years working experience. Both males and females respondents have employed as a manager with a university degree.

This study summarized that the observed companies were classified as micro, small, medium, and big companies. The dominant companies observed were small and medium categories, at about 82% of total figures. Total surveyed firms absorbed nearly 5,300 employees, in which the large companies could employ half of those total labourers. The most significant ICT Companies offered computer programming activities and consultation of Information technology, mostly located in Budapest. The number of ICT companies established between 10 and 30 years was dominant. The dominant sources of capital come from the business founders. Mostly they have occupied assets below three million Euro and then obtained revenue under two million Euro. The combination of invested development in the last three years significantly associated the potential growth within ICT companies. The most impressive number of ICT companies generated profit below one million Euro. Naturally, the large firms obtained the

highest profit, at maximal, approximately seven million Euro. Then followed, the medium enterprise acquired maximal profit near one Euro.

The level of trust in government and state administration at big firms was reliably higher than other enterprises' categories. The level of trust in regional government within the medium business and micro corporations was better than other size companies. Large enterprise had the lowest level of trust in local government compared to other categories of firms. The degree of trust between the managers and the employees in the micro, small, and medium companies was higher than the large corporations' similar trust level. The level of trust in crucial policies encouraging corporate culture and trust sense in small and micro firms was higher than the degree of similar trust at medium and big firms. The degree of trust in customers and client was high in four categories of the firm. Those also occurred a high level of trust in business partners and a degree of confidence in suppliers and subcontractors.

The innovation degree of products and services within medium and large companies were higher than small and micro firms. Micro, small, and medium corporates performed higher-level customized products and services than the big companies. Then, micro, and medium enterprises applied innovative method better than small and big companies. Last, the big companies had innovative procedures and system higher than other categories of corporates.

Overall, medium enterprises obtained the highest average value of ROA, ROE, and ROCE consistently compared to other firm's sizes. However, the big companies achieved the lowest average figures of all the profitability measures among the firm's categories. The average figures of those profitability measures at small and micro companies were higher than the big companies. Medium companies had the highest ROE, at 25.32, indicated that every Euro invested in medium firms and investors would generate about 25 cents. The small firms generated a profit of about 18 cents each one Euro. Then big companies made a return of about 14 cents per one Euro. Medium enterprise had the highest ROCE, at nearby 30 on average, which indicated those companies generated thirty cents of profit each one Euro of capital employed. Consequently, the medium enterprise had better profitability than other categories of firms. Micro enterprises obtained ROCE at nearby 24 on average. Small enterprises owned ROCE at approximately 20 on average, which showed the ability to book profit of twenty cents each one Euro of capital employed. Then, the big companies could merely obtain ten cents of profit each Euro of capital employed, deriving from ROCE value was ten on average.

This study confirmed that the first hypothesis was accepted, implied a positive association between institutional trust and interpersonal trust. This finding highlighted the idea that trust in institutions boosted interpersonal trust. The second proposed hypothesis was admitted. This

outcome revealed that trust in institutions reinforced trust between the company and business partners and straightforward the business partnership. This study accepted the positive relationship between interpersonal trust and inter-organizational trust, as propositioned in the third hypothesis. This result emphasized the positive relationship between interpersonal trust and trust in business partners. The fourth hypothesis was admitted; therefore, this result supported the positive association between inter-organizational trust and financial performance. Later, this study failed to confirm the positive relationship between trust in business partners and innovation. Finally, the direction between innovation and financial performance was accepted.

This study recognized a robust, positive connection between institutional trust and interpersonal trust. Consequently, this research strengthened the point of view of institutional trust as an assurance and prime mover of a corporation's internal business climate. Institutional trust supported the internal management and collaboration between the manager and workers slightly. However, institutional trust discovered merely about three percent variability in interpersonal trust. Consequently, this research considered that there might be other factors further than institutional trust that are critical to encouraging interpersonal trust. For instance, frequent interactions, partner affiliates behave, and social responsibility behaviors of associate subordinate, dyadic connection, manners of personal initiative, job promotion system and fair assessment, and adequate remuneration in work reward clarify interpersonal trust.

This study indicated that institutional trust backed trust between the companies and their partners through simplifying business cooperation. This finding indicated that the government's policies stimulated inter-organizational trust, then improve cooperation. This research then revealed the significance of interpersonal trust to improve trust in business partners. This result indicated the interpersonal trust affected cooperation procedures. Undeniably, trust between the corporates and their business partners enhanced the flexibility of mutual relationships. Inter-organizational trust additionally reduces adaptation time, develops product and process excellence, decreases the cost of harmonization activities, reduces the insecurity of cooperation, and notably diminishes interaction costs. Likewise, this research emphasized the simultaneous determination the institutional trust and interpersonal trust reinforced inter-organizational trust at about 15%. It was noteworthy confidence in a country with a low extent of trust as Hungary.

This study collapsed to answer how the influential role of inter-organizational trust stimulates innovation. As an extensive debate, this research assumed that other factors affected innovation directly besides trust in partners, namely, budget on research and development, inter-functional coordination and human resource practices, instant reaction to evidence from the market,

knowledge, and expertise. This research revealed that innovation significantly correlated with financial performance. Hungarian ICT corporates should maintain a high level of innovation of their products and services, a high degree of an innovative method, and innovative procedures to sustain in a disruptive era. In addition to innovation, this study concluded that strategic application, involvement in the network, quality improvement and cost efficiency significantly influence financial performance.

Ultimately, this study recommended three essential suggestions. The first recommendation is to build interpersonal trust and improve the trust level in a conducive situation to sustain work effectiveness in the internal organization. The subsequent suggestion, the company should retain and cultivate trust in customers as the most critical resources. The company should also concern nurturing trust in suppliers because of specific resources access. Conclusively, this research advised that trust in business partners and innovation boost profitability.

REFERENCES

- ADLER, P. S., & KWON, S.-W. (2002). Social capital: Prospects for a new concept. *Academy of Management Review*, 27(1), 17-40. doi:10.5465/amr.2002.5922314
- ADNER, R. (2002). When are technologies disruptive? A demand-based view of the emergence of competition. *Strategic Management Journal*, 23(8), 667-688. doi: 10.1002/smj.246
- AJMAL, M., HELO, P., & KASSEM, R. (2017). Conceptualizing trust with cultural perspective in international business operations. *Benchmarking: An International Journal*, 24(4), 1099-1118. doi:10.1108/BIJ-06-2016-0101
- AKHAVAN, P., & MAHDI HOSSEINI, S. (2016). Social capital, knowledge sharing, and innovation capability: an empirical study of R&D teams in Iran. *Technology Analysis & Strategic Management*, 28(1), 96-113. doi:10.1080/09537325.2015.1072622
- AL-HAKIM, L., & LU, W. (2017). The role of collaboration and technology diffusion on business performance. *International Journal of Productivity and Performance Management*, 66(1), 22-50. doi:10.1108/IJPPM-08-2014-0122
- ALLEN, M. R., GEORGE, B. A., & DAVIS, J. H. (2018). A model for the role of trust in firm level performance: The case of family businesses. *Journal of Business Research*, 84, 34-45. doi:10.1016/j.jbusres.2017.10.048
- ASKVIK, S., & JAMIL, I. (2013). The institutional trust paradox in Bangladesh. *Public Organization Review*, 13(4), 459-476. doi:10.1007/s11115-013-0263-6
- AUDENAERT, M., DECRAMER, A., LANGE, T., & VANDERSTRAETEN, A. (2016). Setting high expectations is not enough: linkages between expectation climate strength, trust, and employee performance. *International Journal of Manpower*, 37(6), 1024-1041. doi:10.1108/IJM-12-2015-0201
- AULAKH, P. S., KOTABE, M., & SAHAY, A. (1996). Trust and performance in cross-border marketing partnerships: A behavioral approach. *Journal of International Business Studies*, 27(5), 1005-1032. doi:10.1057/palgrave.jibs.8490161

- AYU, M., GAMAYUNI, R. R., & URBANŃSKI, M. (2020). The impact of environmental and social costs disclosure on financial performance mediating by earning management. *Polish Journal of Management Studies*, 21(2), 74-86. doi:10.17512/pjms.2020.21.2.06
- BALBONI, B., MARCHI, G., & VIGNOLA, M. (2018). The moderating effect of trust on formal control mechanisms in international alliances. *European Management Review*, 15(4), 541-558. doi:10.1111/emre.12150
- BARNEY, J. B. (2001). Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of Management*, 27(6), 643-650. doi:10.1177/014920630102700602
- BARNEY, J. B., & HANSEN, M. H. (1994). Trustworthiness as a source of competitive advantage. *Strategic Management Journal*, 15(S1), 175-190. doi:10.1002/smj.4250150912
- BATJARGAL, B. (2003). Social capital and entrepreneurial performance in Russia: A longitudinal study. *Organization Studies*, 24(4), 535-556. doi:10.1177/0170840603024004002
- BAYE, M. R., & PRINCE, J. T. (2017). *Managerial Economics and Business Strategy, Ninth Edition*. New York: McGraw-Hill Education.
- BHATTACHARYA, R., DEVINNEY, T. M., & PILLUTLA, M. M. (1998). A formal model of trust based on outcomes. *Academy of Management Review*, 23(3), 459-472. doi:10.5465/amr.1998.926621
- BIEN, H.-J., BEN, T.-M., & WANG, K.-F. (2014). Trust relationships within R&D networks: A case study from the biotechnological industry. *Innovation*, 16(3), 354-373. doi:10.1080/14479338.2014.11081993
- BIENKOWSKA, A., & ZABŁOCKA-KLUCZKA, A. (2016). Trust and controlling. *Management*, 20(2), 261-277. doi:10.1515/manment-2015-0064
- BIJL, R. (2011). Never waste a good crisis: Towards social sustainable development. *Social Indicators Research*, 102(1), 157-168. doi:10.1007/s11205-010-9736-y
- BOURDIEU, P., & WACQUANT, L. J. (1992). *An invitation to reflexive sociology*: University of Chicago press.

- BREHM, J., & RAHN, W. (1997). Individual-level evidence for the causes and consequences of social capital. *American Journal of Political Science*, 999-1023. doi:10.2307/2111684
- BRIGHAM, E. F., & HOUSTON, J. F. (2019). *Fundamentals of financial management, Fifteenth Edition*. Boston, USA: Cengage Learning, Inc.
- BROCKMAN, B. K., PARK, J. E., & MORGAN, R. M. (2017). The Role of Buyer Trust in outsourced CRM: Its influence on organizational learning and performance. *Journal of Business-to-Business Marketing*, 24(3), 201-219. doi: 10.1080/1051712X.2017.1345260
- BROWER, H. H., LESTER, S. W., KORSGAARD, M. A., & DINEEN, B. R. (2009). A closer look at trust between managers and subordinates: Understanding the effects of both trusting and being trusted on subordinate outcomes. *Journal of Management*, 35(2), 327-347. doi:10.1177/0149206307312511
- BROWN, S., MCHARDY, J., MCNABB, R., & TAYLOR, K. (2011). Workplace performance, worker commitment, and loyalty. *Journal of Economics & Management Strategy*, 20(3), 925-955. doi:10.1016/j.jebo.2015.05.001
- BUGDOL, M. (2013). Selected proposals and possibilities of trust development within the TQM concept. *The TQM Journal*, 25(1), 75-88. doi:10.1108/17542731311286441
- BURSIAN, D., WEICHENRIEDER, A. J., & ZIMMER, J. (2015). Trust in government and fiscal adjustments. *International Tax and Public Finance*, 22(4), 663-682. doi:10.1007/s10797-015-9363-2
- CAO, Q., SCHNIEDERJANS, D. G., & SCHNIEDERJANS, M. (2017). Establishing the use of cloud computing in supply chain management. *Operations Management Research*, 10(1-2), 47-63. doi:10.1007/s12063-017-0123-6
- CAPON, N., FARLEY, J. U., LEHMANN, D. R., & HULBERT, J. M. (1992). Profiles of product innovators among large US manufacturers. *Management Science*, 38(2), 157-169. doi:10.1287/mnsc.38.2.157
- CASTALDO, S., PREMAZZI, K., & ZERBINI, F. (2010). The meaning (s) of trust. A content analysis on the diverse conceptualizations of trust in scholarly research on business

- relationships. *Journal of Business Ethics*, 96(4), 657-668. doi:10.1007/s10551-010-0491-4
- CHAO, Y.-C. (2011). Decision-making biases in the alliance life cycle: Implications for alliance failure. *Management Decision*, 49(3), 350-364. doi:10.1108/00251741111120743
- CHEN, X.-P., EBERLY, M. B., CHIANG, T.-J., FARH, J.-L., & CHENG, B.-S. (2014). Affective trust in Chinese leaders: Linking paternalistic leadership to employee performance. *Journal of Management*, 40(3), 796-819. doi:10.1177/0149206311410604
- CHRISTENSEN, C. M. (1997). The innovator's dilemma: when new technologies cause great firms to fail: Harvard Business Review Press.
- CHRISTENSEN, C. M. (2006). The ongoing process of building a theory of disruption. *Journal of Product Innovation Management*, 23(1), 39-55. doi:10.1111/j.1540-5885.2005.00180.x
- CHRISTENSEN, C. M., MCDONALD, R., ALTMAN, E. J., & PALMER, J. E. (2018). Disruptive innovation: An intellectual history and directions for future research. *Journal of Management Studies*, 55(7), 1043-1078. doi: 10.1111/joms.12349
- COLEMAN, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 94, S95-S120. doi: 10.1086/228943
- COOKE, P., & WILLS, D. (1999). Small firms, social capital and the enhancement of business performance through innovation programmes. *Small Business Economics*, 13(3), 219-234. doi:10.1023/A:1008178808631
- CORSTEN, D., & FELDE, J. (2005). Exploring the performance effects of key-supplier collaboration. *International Journal of Physical Distribution & Logistics Management*, 35(6), 445-461. doi:10.1108/09600030510611666
- COSTIGAN, R. D., IITER, S. S., & BERMAN, J. J. (1998). A multi-dimensional study of trust in organizations. *Journal of Managerial Issues*, 303-317. Retrieved November 24, 2020, from <http://www.jstor.org/stable/40604201>

- CROOK, T. R., COMBS, J. G., KETCHEN JR, D. J., & AGUINIS, H. (2013). Organizing around transaction costs: What have we learned and where do we go from here? *Academy of Management Perspectives*, 27(1), 63-79. doi: 10.5465/amp.2012.0008
- CYGLER, J., & SROKA, W. (2017, 4th – 5th October 2017). *Structural pathologies in interorganizational networks: analysis of the position in the network, network density and links in the network*. Paper presented at the the 17th International Scientific Conference “Globalization and Its Socio-Economic Consequences”, University of Zilina, The Faculty of Operation and Economics of Transport and Communications.
- DABIJA, D.-C., AL POP, N., & SĂNIUȚĂ, A. (2017). Innovation in do-it-yourself retail: an empirical study on generation X among professional craftsmen and consumers. *Economics & Sociology*, 10(2), 296-311. doi:10.14254/2071-789X.2017/10-2/22
- DARROCH, J., & MCNAUGHTON, R. (2002). Examining the link between knowledge management practices and types of innovation. *Journal of Intellectual Capital*. doi:10.1108/14691930210435570
- DAVIS, J. H., SCHOORMAN, F. D., MAYER, R. C., & TAN, H. H. (2000). The trusted general manager and business unit performance: Empirical evidence of a competitive advantage. *Strategic Management Journal*, 21(5), 563-576. doi:10.1002/(SICI)1097-0266(200005)21:5<563::AID-SMJ99>3.0.CO;2-0
- DIRKS, K. T., & SKARLICKI, D. P. (2009). The relationship between being perceived as trustworthy by coworkers and individual performance. *Journal of Management*, 35(1), 136-157. doi:10.1177/0149206308321545
- DOVEY, K. (2009). The role of trust in innovation. *The Learning Organization*, 16(4), 311-325. doi:10.1108/09696470910960400
- DYER, J. H., & CHU, W. (2000). The determinants of trust in supplier-automaker relationships in the US, Japan and Korea. *Journal of International Business Studies*, 31(2), 259-285. doi:10.1057/palgrave.jibs.8490905
- DYER, J. H., & CHU, W. (2003). The role of trustworthiness in reducing transaction costs and improving performance: Empirical evidence from the United States, Japan, and Korea. *Organization Science*, 14(1), 57-68. doi:10.1287/orsc.14.1.57.12806

- DYER, J. H., & SINGH, H. (1998). The relational view: Cooperative strategy and sources of interorganizational competitive advantage. *Academy of Management Review*, 23(4), 660-679. doi: 10.5465/amr.1998.1255632
- EMIS (2018A). *Hungary ICT Sector 2017/2018: An EMIS Insights Industry Report*. EMIS In, Or, Emerging Market: www.EMIS.com. Retrieved November 23, 2018, from https://www.emis.com/php/store/reports/HU/Hungary_ICT_Sector_Report_20172018_en_599331364.html.
- EMIS (2018B). *IT Companies Industries Profile in Hungary 2018: An EMIS Insights Industry Report*. EMIS In, Or, Emerging Market: www.EMIS.com. Retrieved December 11, 2018, from <https://www.emis.com/php/url-sharing/route?url=8aa558fb42351c7b>.
- EMIS (2020A). *EMIS Benchmark Income Statement: Information (51)*. EMIS In, Or, Emerging Market: www.EMIS.com. Retrieved March 2, 2020, from https://www.emis.com/php/benchmark/sector/indicators?gid=3&pc=HU&prod%5B0%5D=HU&indu=51&change_selected_countries=1&c=EUR
- EMIS (2020B). *EMIS Benchmark Key Indicators: Information (51)*. EMIS In, Or, Emerging Market: www.EMIS.com. Retrieved April 21, 2020, from https://www.emis.com/php/benchmark/sector/indicators?gid=1&pc=HU&prod%5B0%5D=HU&indu=51&change_selected_countries=1&c=EUR
- EMIS (2020C). *Gross Value Added ICT of GDP in Hungary*. EMIS In, Or, Emerging Market: www.EMIS.com. Retrieved April 20, 2020, from [https://www.emis.com/php/industries/statistics?&pc=HU&prod\[\]=HU&indu=51&change_selected_countries=1](https://www.emis.com/php/industries/statistics?&pc=HU&prod[]=HU&indu=51&change_selected_countries=1)
- FANG, E., PALMATIER, R. W., SCHEER, L. K., & LI, N. (2008). Trust at different organizational levels. *Journal of Marketing*, 72(2), 80-98. doi:10.1509/jmkg.72.2.80
- FAWCETT, S. E., JONES, S. L., & FAWCETT, A. M. (2012). Supply chain trust: The catalyst for collaborative innovation. *Business Horizons*, 55(2), 163-178. doi: 0.1016/j.bushor.2011.11.004
- FIELD, A. (2009). *Discovering statistics using IBM SPSS statistics*: Sage.
- FUKUYAMA, F. (1995). *Trust: The social virtues and the creation of prosperity* (Vol. 99). New York: Free Press.

- FULKERSON, G. M., & THOMPSON, G. H. (2008). The evolution of a contested concept: A meta-analysis of social capital definitions and trends (1988–2006). *Sociological Inquiry*, 78(4), 536-557. doi: 10.1111/j.1475-682X.2008.00260.x
- FULMER, C. A., & GELFAND, M. J. (2012). At what level (and in whom) we trust: Trust across multiple organizational levels. *Journal of Management*, 38(4), 1167-1230. doi:10.1177/0149206312439327
- GALFORD, R., & DRAPEAU, A. S. (2003). The enemies of trust. *Harvard Business Review*, 81(2), 88-95.
- GAUR, A. S., MUKHERJEE, D., GAUR, S. S., & SCHMID, F. (2011). Environmental and firm level influences on inter-organizational trust and SME performance. *Journal of Management Studies*, 48(8), 1752-1781. doi:10.1111/j.1467-6486.2011.01011.x
- GEYSKENS, I., STEENKAMP, J.-B. E., & KUMAR, N. (2006). Make, buy, or ally: A transaction cost theory meta-analysis. *Academy of Management Journal*, 49(3), 519-543. doi: 10.5465/amj.2006.21794670
- GOERGEN, M., CHAHINE, S., BREWSTER, C., & WOOD, G. (2013). Trust, owner rights, employee rights and firm performance. *Journal of Business Finance & Accounting*, 40(5-6), 589-619. doi:10.1111/jbfa.12033
- GRANOVETTER, M. S. (1973). The strength of weak ties. *American Journal of Sociology*, 78(6), 1360-1380. doi: 10.1086/225469
- GUINOT, J., & CHIVA, R. (2019). Vertical Trust Within Organizations and Performance: A Systematic Review. *Human Resource Development Review*, 18(2), 196-227. doi:10.1177/1534484319842992
- GULATI, R. (1995). Social structure and alliance formation patterns: A longitudinal analysis. *Administrative Science Quarterly*, 619-652. doi:10.2307/2393756
- GULATI, R., & SINGH, H. (1998). The architecture of cooperation: Managing coordination costs and appropriation concerns in strategic alliances. *Administrative Science Quarterly*, 781-814. doi:10.2307/2393616
- GULATI, R., KHANNA, T., & NOHRIA, N. (1994). Unilateral commitments and the importance of process in alliances. *MIT Sloan Management Review*, 35(3), 61.

- HAIR JR, J. F., HULT, G. T. M., RINGLE, C., & SARSTEDT, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*: Sage publications.
- HAIR, J. F., RISHER, J. J., SARSTEDT, M., & RINGLE, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*. doi:10.1108/EBR-11-2018-0203
- HENSELER, J., & SARSTEDT, M. (2013). Goodness-of-fit indices for partial least squares path modeling. *Computational Statistics*, 28(2), 565-580. doi:10.1007/s00180-012-0317-1
- HOWITT, D., & CRAMER, D. (2011). *Introduction to SPSS statistics in psychology: for version 19 and earlier*: Pearson.
- IANCU, I. A., & NEDELEA, A.-M. (2018). Consumer confidence from Cluj-Napoca metropolitan area, in the food labeling system. *Amfiteatru Economic*, 20(47), 116-133.
- INKPEN, A. C., & TSANG, E. W. (2005). Social capital, networks, and knowledge transfer. *Academy of Management Review*, 30(1), 146-165. doi:10.5465/amr.2005.15281445
- JEAN, R. J. B., SINKOVICS, R. R., & HIEBAUM, T. P. (2014). The Effects of Supplier Involvement and Knowledge Protection on Product Innovation in Customer–Supplier Relationships: A Study of Global Automotive Suppliers in China. *Journal of Product Innovation Management*, 31(1), 98-113. doi:10.1111/jpim.12082
- JING, F. F., AVERY, G. C., & BERGSTEINER, H. (2014). Enhancing multiple dimensions of performance in small professional firms through leader–follower trust. *Asia Pacific Journal of Human Resources*, 52(3), 351-369. doi:10.1111/1744-7941.12012
- KAASA, A. (2019). Determinants of individual-level social capital: Culture and personal values. *Journal of International Studies*, 12(1), 9-32.
- KADEFORS, A. (2004). Trust in project relationships—inside the black box. *International Journal of Project Management*, 22(3), 175-182. doi:10.1016/S0263-7863(03)00031-0
- KIKUCHI, M. (2008). Assessing government efforts to (re) build trust in government: Challenges and lessons learned from Japanese experiences. *Research in Public Policy Analysis and Management*, 17, 201-225. doi: 0.1016/S0732-1317(08)17011-7

- KITCHELL, S. (1995). Corporate culture, environmental adaptation, and innovation adoption: a qualitative/quantitative approach. *Journal of The Academy of Marketing Science*, 23(3), 195-205. doi:10.1177/0092070395233004
- KLOUTSINIOTIS, P. V., & MIHAIL, D. M. (2018). The link between perceived high-performance work practices, employee attitudes and service quality: The mediating and moderating role of trust. *Employee Relations*, 40(5), 801-821. doi:10.1108/ER-08-2017-0201. doi: 10.1108/ER-08-2017-0201
- KSH (2020). *Value and distribution of gross value added by industry in 2018*. Kozponti Statisztikai Hivatal: www.ksh.hu. Retrieved May 13, 2020, from http://www.ksh.hu/docs/eng/xstadat/xstadat_annual/i_qpt002d.html.
- LAAN, A., NOORDERHAVEN, N., VOORDIJK, H., & DEWULF, G. (2011). Building trust in construction partnering projects: An exploratory case-study. *Journal of Purchasing and Supply Management*, 17(2), 98-108. doi:10.1016/j.pursup.2010.11.001
- LANDRY, R., AMARA, N., & LAMARI, M. (2002). Does social capital determine innovation? To what extent? *Technological Forecasting and Social Change*, 69(7), 681-701. doi:10.1016/S0040-1625(01)00170-6
- LEE, Y., CHO, I., & PARK, H. (2015). The effect of collaboration quality on collaboration performance: empirical evidence from manufacturing SMEs in the Republic of Korea. *Total Quality Management & Business Excellence*, 26(9-10), 986-1001. doi:10.1080/14783363.2015.1050169
- LEVI, M. (1996). Social and unsocial capital: A review essay of Robert Putnam's *Making Democracy Work*. *Politics & Society*, 24(1), 45-55. doi:10.1177/0032329296024001005
- LEWICKI, R. J., & BUNKER, B. B. (1995). Trust in relationships: A model of development and decline. In *Conflict, cooperation, and justice: Essays inspired by the work of Morton Deutsch*. (pp. 133-173). Hoboken, NJ, US: Jossey-Bass/Wiley.
- LI, Y., YANG, J., BAI, X., CHE, Y., & ZHAN, H. (2012). The dark side of social capital: Perspective of relational embeddedness. *China Soft Sci*, 10, 104-116.

- LIM, D.-H., OH, J.-M., & KWON, G.-H. (2016). Mediating effects of public trust in government on national competitiveness: Evidence from Asian countries. *International Review of Public Administration*, 21(2), 125-146. doi:10.1080/12294659.2016.1189196
- LOURY, G. C. (1977). A dynamic theory of racial income differences. Women, minorities, and employment discrimination. PA Wallace and AM La Mond. Lexington, MA. In: Heath Publishers. doi:10.1257/jep.12.2.117
- LU, P., YUAN, S., & WU, J. (2017). The interaction effect between intra-organizational and inter-organizational control on the project performance of new product development in open innovation. *International Journal of Project Management*, 35(8), 1627-1638. doi:10.1016/j.ijproman.2017.09.009
- LYU, T., & JI, X. (2020). A Meta-Analysis on the impact of social capital on firm performance in China's transition economy. *Sustainability*, 12(7), 2642. Doi:10.3390/su12072642
- MAIGA, A. S., & JACOBS, F. A. (2007). Activity-based cost management and manufacturing, operational and financial performance: A structural equation modeling approach. *Advances in Management Accounting*, 16, 217-260. doi:10.1016/S1474-7871(07)16008-1
- MARI, I. (2010). 15 The dynamics of trust across cultures in family firms. *Organizational Trust*, 383.
- MARTIN, J. D., KEOWN, A. J., & PETTY, J. W. (2016). *Foundations of finance*: Pearson Education.
- MAURER, I. (2010). How to build trust in inter-organizational projects: The impact of project staffing and project rewards on the formation of trust, knowledge acquisition and product innovation. *International Journal of Project Management*, 28(7), 629-637. doi:10.1016/j.ijproman.2009.11.006
- MAYER, R. C., & DAVIS, J. H. (1999). The effect of the performance appraisal system on trust for management: A field quasi-experiment. *Journal of Applied Psychology*, 84(1), 123. doi:10.1037/0021-9010.84.1.123
- MAYER, R. C., DAVIS, J. H., & SCHOORMAN, F. D. (1995). An integrative model of organizational trust. *Academy of Management Review*, 20(3), 709-734. doi:10.5465/amr.1995.9508080335

- MCALLISTER, D. J. (1995). Affect-and cognition-based trust as foundations for interpersonal cooperation in organizations. *Academy of Management Journal*, 38(1), 24-59. doi:10.5465/256727
- MCEVILY, B., PERRONE, V., & ZAHEER, A. (2003). Trust as an organizing principle. *Organization Science*, 14(1), 91-103. doi:10.1287/orsc.14.1.91.12814
- MOELLER, K. (2009). Intangible and financial performance: causes and effects. *Journal of Intellectual Capital*. doi:10.1108/14691930910952632
- MOLINA-MORALES, F. X., MARTÍNEZ-FERNÁNDEZ, M. T., & TORLO, V. J. (2011). The dark side of trust: The benefits, costs and optimal levels of trust for innovation performance. *Long Range Planning*, 44(2), 118-133. doi:10.1016/j.lrp.2011.01.001
- MORGAN, R. M., & HUNT, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58(3), 20-38. doi:10.1177/002224299405800302
- MU, J., PENG, G., & LOVE, E. (2008). Interfirm networks, social capital, and knowledge flow. *Journal of Knowledge Management*.
- MUGARURA, N. (2016). Different types of guarantee schemes and their usage in safeguarding against default risks in international commercial practice. *International Journal of Law and Management*, 58(5), 507-522. doi:10.1108/IJLMA-05-2015-0024
- MURPHY, J. T. (2002). Networks, trust, and innovation in Tanzania's manufacturing sector. *World Development*, 30(4), 591-619. doi:10.1016/S0305-750X(01)00131-0
- NAGY, A. B., DOBSZAI, D., KADLÓT, T., & KÖNIG, A. (2016). *Regime change, democracy and Hungarian society*. (pp. 1-33). Budapest, Hungary: Friedrich-Ebert-Stiftung
- NIAZI, A., & HASSAN, H. (2016). Trust and economic performance. *Review of International Business and Strategy*. doi:10.1108/RIBS-02-2016-0010
- NOOTEBOOM, B., BERGER, H., & NOORDERHAVEN, N. G. (1997). Effects of trust and governance on relational risk. *Academy of Management Journal*, 40(2), 308-338. doi:10.5465/256885
- OECD (2011). *Information and Technology Companies*. OECD i-Library: www.oecd-ilibrary.org. Retrieved March 2, 2021, from <https://www.oecd-ilibrary.org/science-and->

technology/information-and-communication-technology-ict/indicator-group/english_04df17c2-en. doi:10.1787/04df17c2-en

- OLÁH, J., BAI, A., KARMAZIN, G., BALOGH, P., & POPP, J. (2017). The role played by trust and its effect on the competitiveness of logistics service Providers in Hungary. *Sustainability*, 9(12), 2303. doi:10.3390/su9122303
- OLÁH, J., POPP, J., MÁTÉ, D., & HIDAYAT, Y. A. (2019A). Market structure and concentration ratio: Evidence of Information Technology Companies in Hungary. *Forum Scientiae Oeconomia*, 7(3), 7-18. doi:10.23762/FSO_VOL 7_NO 3_1
- OLÁH, J., YUSMAR, A., MÁTÉ, D., NOVOTNY, Á., POPP, J., LAKNER, Z., & KOVÁCS, S. (2019B). A trust approach to the financial performance of information and communications technology enterprises. *Polish Journal of Management Studies*, 20(1). 332-343. doi:10.17512/pjms.2019.20.1.29
- PALMATIER, R. W., DANT, R. P., GREWAL, D., & EVANS, K. R. (2006). Factors influencing the effectiveness of relationship marketing: a meta-analysis. *Journal of Marketing*, 70(4), 136-153. doi:10.1509/jmkg.70.4.136
- PALMATIER, R. W., DANT, R. P., GREWAL, D., & EVANS, K. R. (2018). Factors influencing the effectiveness of relationship marketing: A Meta-analysis. *Journal of Marketing*, 70(4), 136-153. doi:10.1509/jmkg.70.4.136
- PARK, S. H., & LUO, Y. (2001). Guanxi and organizational dynamics: Organizational networking in Chinese firms. *Strategic Management Journal*, 22(5), 455-477. doi: 10.1002/smj.167
- PORTA, R. L., LOPEZ-DE-SILANE, F., SHLEIFER, A., & VISHNY, R. W. (1996). *Trust in large organizations* (No. w5864). National Bureau of Economic Research. doi:10.3386/w5864
- PRATONO, A. H. (2018). From social network to firm performance. *Management Research Review*. doi:10.1108/MRR-03-2017-0080
- PUTNAM ROBERT, D., ROBERT, L., & NANETTI RAFFAELLA, Y. (1993). Making democracy work: civic traditions in modern Italy. *Journal of Women s Health*.

- PUTNAM, R. D. (1995). Tuning in, tuning out: The strange disappearance of social capital in America. *PS: Political science & politics*, 28(4), 664-683.
- RAVAND, H., & BAGHAEI, P. (2016). Partial least squares structural equation modeling with R. *Practical Assessment, Research, and Evaluation*, 21(1), 11. doi:10.7275/d2fa-qv48
- RICH, G. A. (1997). The sales manager as a role model: Effects on trust, job satisfaction, and performance of salespeople. *Journal of The Academy of Marketing Science*, 25(4), 319-328. doi:10.1177%2F0092070397254004.pdf
- RIM, H., & DONG, C. (2018). Trust and distrust in society and public perception of CSR: a cross-cultural study. *Social Responsibility Journal*, 14(1), 1-19. doi:10.1108/SRJ-01-2017-0016
- RING, P. S., & VAN DE VEN, A. H. (1992). Structuring cooperative relationships between organizations. *Strategic Management Journal*, 13(7), 483-498. doi:10.1002/smj.4250130702
- ROBSON, M. J., KATSIKEAS, C. S., & BELLO, D. C. (2008). Drivers and performance outcomes of trust in international strategic alliances: The role of organizational complexity. *Organization Science*, 19(4), 647-665. doi:10.1287/orsc.1070.0329
- ROUSSEAU, D. M., SITKIN, S. B., BURT, R. S., & CAMERER, C. (1998). Not so different after all: A cross-discipline view of trust. *Academy of Management Review*, 23(3), 393-404. doi:10.5465/amr.1998.926617
- SABEL, C. F. (1993). Studied trust: Building new forms of cooperation in a volatile economy. *Human Relations*, 46(9), 1133-1170. doi:10.1177/001872679304600907
- SAKO, M. (1992). *Price, quality and trust: Inter-firm relations in Britain and Japan*: Cambridge University Press.
- SAKO, M., & HELPER, S. (1998). Determinants of trust in supplier relations: Evidence from the automotive industry in Japan and the United States. *Journal of Economic Behavior & Organization*, 34(3), 387-417. doi:10.1016/S0167-2681(97)00082-6
- SANCHEZ, G., TRINCHEIRA, L., & RUSSOLILLO, G. (2013). PLSPM: tools for partial least squares path modeling (PLS-PM). *R package version 0.4, 1*.

- SANKOWSKA, A. (2013). Relationships between organizational trust, knowledge transfer, knowledge creation, and firm's innovativeness. *The Learning Organization*, 20(1), 85-100. doi:10.1108/09696471311288546
- SCHOORMAN, F. D., MAYER, R. C., & DAVIS, J. H. (2007). An integrative model of organizational trust: Past, present, and future. *Academy of Management Review*, 32(22), 344-354. doi:10.5465/amr.2007.24348410
- SEPPÄNEN, R., BLOMQVIST, K., & SUNDQVIST, S. (2007). Measuring inter-organizational trust—a critical review of the empirical research in 1990–2003. *Industrial Marketing Management*, 36(2), 249-265. doi:10.1016/j.indmarman.2005.09.003
- SHAHMEHR, F. S., KHAKSAR, S. M. S., ZAEFARIAN, R., & TALEBI, K. (2015). How relational embeddedness affects business performance through trust: empirical research on emerging SMEs. *International Journal of Entrepreneurship and Small Business*, 26(1), 61-77. doi:10.1504/IJESB.2015.071320
- SMITH, K. G., CARROLL, S. J., & ASHFORD, S. J. (1995). Intra-and interorganizational cooperation: Toward a research agenda. *Academy of Management Journal*, 38(1), 7-23. doi:10.5465/256726
- SROKA, W. (2011). Problem of trust in alliance networks. *Organizacija*, 44(4), 101-108. doi:10.2478/v10051-011-0010-0
- STAM, W., ARZLANIAN, S., & ELFRING, T. (2014). Social capital of entrepreneurs and small firm performance: A meta-analysis of contextual and methodological moderators. *Journal of Business Venturing*, 29(1), 152-173. doi:10.1016/j.jbusvent.2013.01.002
- SUSENO, Y., & RATTEN, V. (2007). A theoretical framework of alliance performance: The role of trust, social capital and knowledge development. *Journal of Management & Organization*, 13(1), 4-23. doi:10.1017/S1833367200003874
- TANG, L., & ZHOU, J. (2014). Research on the relationship between social capital, absorptive capacity and innovation incubation performance. *Scientific Research Management*, 35(7), 51-59.
- TSAI, W., & GHOSHAL, S. (1998). Social capital and value creation: The role of intrafirm networks. *Academy of Management Journal*, 41(4), 464-476. doi:10.5465/257085

- TSAI, Y.-H., JOE, S.-W., DING, C. G., & LIN, C.-P. (2013). Modeling technological innovation performance and its determinants: An aspect of buyer–seller social capital. *Technological Forecasting and Social Change*, 80(6), 1211-1221. doi: 10.1016/j.techfore.2012.10.028
- UNITED NATIONS (2008). *International Standard Industrial Classification of all Economic Activities (ISIC)*. New York: United Nations Publications. United Nations Statistics Divisions: <https://unstats.un.org/home/>. Retrieved February 28, 2021, from https://unstats.un.org/unsd/publication/seriesm/seriesm_4rev4e.pdf.
- UZZI, B. (1996). The sources and consequences of embeddedness for the economic performance of organizations: The network effect. *American Sociological Review*, 674-698. doi:10.2307/2096399
- VACCARO, A., PARENTE, R., & VELOSO, F. M. (2010). Knowledge management tools, inter-organizational relationships, innovation and firm performance. *Technological Forecasting and Social Change*, 77(7), 1076-1089. doi:10.1016/j.techfore.2010.02.006
- VANHALA, M., & DIETZ, G. (2015). HRM, trust in employer and organizational performance. *Knowledge and Process Management*, 22(4), 270-287. doi:10.1002/kpm.1491
- VASA, L., BARANYAI, Z., KOVACS, Z., & SZABO, G. G. (2014). Drivers of trust: some experiences from Hungarian agricultural cooperatives. *Journal of International Food & Agribusiness Marketing*, 26(4), 286-297. doi:10.1080/08974438.2013.833567
- VENKATRAMAN, N., & RAMANUJAM, V. (1986). Measurement of business performance in strategy research: A comparison of approaches. *Academy of Management Review*, 11(4), 801-814. doi:10.5465/amr.1986.4283976
- WANG, L., YEUNG, J. H. Y., & ZHANG, M. (2011). The impact of trust and contract on innovation performance: The moderating role of environmental uncertainty. *International Journal of Production Economics*, 134(1), 114-122. doi:10.1016/j.ijpe.2011.06.006
- WEI, H.-L., WONG, C. W., & LAI, K.-H. (2012). Linking inter-organizational trust with logistics information integration and partner cooperation under environmental

- uncertainty. *International Journal of Production Economics*, 139(2), 642-653. doi:10.1016/j.ijpe.2012.05.036
- WILLIAMSON, O. E. (1988). Corporate finance and corporate governance. *The Journal of Finance*, 43(3), 567-591. doi: 10.1111/j.1540-6261.1988.tb04592.x
- WILLIAMSON, O. E. (1991). Comparative economic organization: The analysis of discrete structural alternatives. *Administrative Science Quarterly*, 269-296. doi:10.2307/2393356
- WILLIAMSON, O. E. (1993A). Calculativeness, trust, and economic organization. *The Journal of Law and Economics*, 36(1, Part 2), 453-486. doi:10.1086/467284
- WILLIAMSON, O. E. (1993B). Transaction cost economics and organization theory. *Industrial and Corporate Change*, 2(2), 107-156. doi:10.1093/icc/2.2.107
- WIROTO, D. W., & TAAN, H. (2019). Business Continuity, Motivation, and Social Conditions of Young Entrepreneurs. *Economics & Sociology*, 12(4), 166-332. doi:10.14254/2071-789X.2019/12-4/10
- WOOLCOCK, M., & NARAYAN, D. (2000). Social capital: Implications for development theory, research, and policy. *The World Bank Research Observer*, 15(2), 225-249. doi:10.1093/wbro/15.2.225
- ZAHEER, A., & VENKATRAMAN, N. (1995). Relational governance as an interorganizational strategy: An empirical test of the role of trust in economic exchange. *Strategic Management Journal*, 16(5), 373-392. doi:10.1002/smj.4250160504
- ZAHEER, A., MCEVILY, B., & PERRONE, V. (1998). Does trust matter? Exploring the effects of interorganizational and interpersonal trust on performance. *Organization Science*, 9(2), 141-159. doi:10.1287/orsc.9.2.141
- ZAK, P. J., & KNACK, S. (2001). Trust and growth. *The Economic Journal*, 111(470), 295-321. doi:10.1111/1468-0297.00609
- ZHANG, M., LETTICE, F., & ZHAO, X. (2015). The impact of social capital on mass customisation and product innovation capabilities. *International Journal of Production Research*, 53(17), 5251-5264. doi: 10.1080/00207543.2015.1015753

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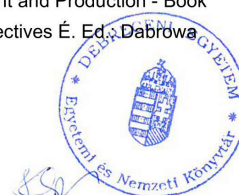
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Selye e-studies. 12 (2), 28-40, 2020. EISSN: 1338-1598.
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List of other publications

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7. **Yusmar, A. H.:** Graduates' employability skills in business management and success initial career.

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QUESTIONNAIRE

In general, about the company

C00	Company identification no.	<div style="border: 1px solid black; height: 20px; width: 100%;"></div>
CO1	What was your company or its predecessor's foundation year?	<div style="border: 1px solid black; height: 20px; width: 100%;"></div>
CO2	Your business ownership... ONE ANSWER POSSIBLE <div style="margin-left: 40px;"> mainly consists of Hungarian owners mainly consists of foreign owners backed by significant Hungarian and foreign owners </div>	<div style="border: 1px solid black; height: 20px; width: 100%;"></div> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>
CO3	How many sites does your company have?	<div style="border: 1px solid black; height: 20px; width: 100%;"></div>
CO4	Please specify which of the following types of sites your company has (more than one answer is possible) MORE THAN ONE ANSWER POSSIBLE <div style="margin-left: 40px;"> Budapest County town Town Community Abroad </div>	<div style="border: 1px solid black; height: 20px; width: 100%;"></div> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>

Inter-organizational trust

IO1	How would you rate the level of general trust between business partners in the IT industry? ONE ANSWER POSSIBLE <div style="margin-left: 40px;"> 1 = there is a high level of mistrust among the partners 2 = there is distrust between partners 3 = there is an average level of trust in the industry 4 = there is trust between partners 5 = relationships are based on a high level of trust </div>	<div style="border: 1px solid black; height: 20px; width: 100%;"></div> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>
IO2	If you think of your own company, how would you rate your confidence in the following partners? 1 = there is a very high level of mistrust between partners - 2 - 3 - 4 - 5 = relationships are based on a high level of trust and partnership. <div style="margin-left: 40px;"> A) trust in customers and clients B) trust in suppliers and subcontractors C) trust in other IT providers like you </div>	<div style="border: 1px solid black; height: 20px; width: 100%;"></div> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>
IO3	Taking into account all your clients, list the relationships on a scale of 1 to 5	(Total 100%) <div style="border: 1px solid black; height: 20px; width: 100%;"></div>

1 = short-term, occasional
collaborations
5 = long-term partnership based on mutual trust

IO4 How do you evaluate your firm's relationships with contracting partners in general?

1 = The customer (client) receives an unjustified amount of benefit
2 = There are more benefits for the customer
3 = There is equal treatment for customer and seller
4 = There are more benefits for the seller
5 = The seller receives an unjustified amount of benefit

IO5 Which of the following statements best describes the process in terms of contracts with clients/customers?

ONE ANSWER POSSIBLE

1 = Preparing contracts is too long, the parties try to over-secure themselves.
2 = Preparing contracts is a long procedure, requiring serious and thorough legal procedures.
3 = Preparing contracts takes a medium length of time, and is the result of a manageable process.
4 = Preparing contracts takes a short time, and is the result of a reasonable and manageable process.
5 = Preparing contracts is quick and routine.

IO6 How much do you feel your own role to be decisive in building trust between your company and partner companies (clients, subcontractors and other IT service providers).

ONE ANSWER POSSIBLE

1 = I have no role in it
2 = I have a small role in it
3 = I have an average role in it
4 = I have a bigger than average role
5 = I have a decisive role in it

Interpersonal trust within the firm

IP1 On a scale of 1 to 5, how would you rate the general climate of trust among employees within your company?

ONE ANSWER POSSIBLE

Please include the relationship between managers/subordinates, as well as the relationship between owners and management and between employees in the same position

1 = very low trust within the company
2 = low trust within the company
3 = an average level of trust in our company

4 = high level of trust within the company
 5 = very high level of trust within the company
 0 = it is a one person business

IP2 How much do you think you play a decisive role in creating a corporate culture and a climate of trust at your company?

1 = I have no role in it
 2 = I have a small role in it
 3 = I have an average role in it
 4 = I have a bigger than average role
 5 = I have a decisive role in it

IP3 How would you rate your managerial style. Which of the following statements best describes you?

ONE ANSWER POSSIBLE

1 = The leader makes an independent decision and communicates it
 2 = The leader makes the decision and explains it
 3 = The leader announces his decision but it can still be changed
 4 = The leader presents the problem, defines the boundaries, asks for suggestions and then decides
 5 = The leader allows the subordinates to operate independently within previously established rules
 0 = the company consists of one person

IP4 How would you rate the rate of staff turnover in the company (arrival of new employees / departure of old ones)?

1 = Substantially lower than the industry average
 2 = Slightly lower than the industry average
 3 = Corresponding to the industry average
 4 = Slightly higher than the industry average
 5 = Significantly higher than the industry average

IP5 Which of the following benefits and benefits does your company provide for employees (or a group of employees, but not just the management)

MORE THAN ONE ANSWER POSSIBLE

1=A range of fringe benefits
 2=Accident and health insurance
 3=Study scholarships
 4=Other
 5=None

Institutional trust

IN1 How much do you trust the following economic and social actors?

1 = not at all; 2 = slightly; 3 = moderately; 4 = rather yes than no; 5 = I fully trust them

- 1 How much do you trust in state government, ministries, government agencies?
- 2 How much do you trust in state administration (Public Procurement Office, Competition Office, National Bank, etc.)?
- 3 How much do you trust in the judiciary (Constitutional Court, judiciary and prosecutor's office)?
- 4 How much do you trust in politicians?
- 5 How much do you trust in local government?
- 6 How much do you trust in the chambers of commerce?
- 7 How much do you trust in banks?
- 8 How much do you trust in large firms?
- 9 How much do you trust in small firms?
- 10 How much do you trust in customers?
- 11 How much do you trust in your current business partners?

Membership of professional organisations

MB1 Is your company a member of at least 1 Hungarian interest organization? (MKFE, NIT, MLE, MLBKT, MSZLSZSZ, MLSZKSZ etc.)?

ONE ANSWER POSSIBLE

Yes

No

MB2 IF YES; How many organisations is your company a member of?

--

MB3 Is your company a member of a company cluster (cluster: network of producer / service companies and other related organizations)?

ONE ANSWER POSSIBLE

Yes

No

MB4 IF YES; How much do you trust your partner companies in the cluster?

ONE ANSWER POSSIBLE

1 = Not at all

2 = Not much

3 = To an average degree

4 = Rather yes than no

5 = Fully

Strategy

ST1 Does your firm have a written strategy?

ONE ANSWER POSSIBLE

Yes

No

ST2 IF YOU HAVE A WRITTEN STRATEGY: For how many years is the strategy valid?

--

ST3 From an innovation perspective, what strategy does your company follow?

1 = I strongly disagree with the statement; 2 = I disagree with the statement; 3 = I do not know; 4 = I agree with the statement; 5 = I strongly agree with the statement

The degree of innovation in our products and services is high compared to our competitors.

The degree of customisation to individual customer requirements is high compared to our competitors.

The uniqueness of our products and services is high compared to our competitors.

We are more innovative than our competitors in deciding what methods to use in achieving our targets and objectives.

We are more innovative than our competitors in initiating new procedures or systems.

We are more innovative than our competitors in initiating changes in the job content and work methods of our staff.

ST4 Evaluate on a 1-5 scale how growth-oriented your business is.

ONE ANSWER POSSIBLE

1 = Not at all

2 = Not very

3 = To an average degree

4 = Rather yes than no

5 = Fully

ST5 Does your company focus on cost-cutting or providing high-quality services?

ONE ANSWER POSSIBLE

1 = mainly on cost reduction

2 = more on cost reduction

3 = on both equally

4 = rather on high quality

5 = mainly on high quality

ST6 What kind of funding sources does/did your company use? (you can indicate more than one)

- 1 = Business owners' own sources
- 2 = Financial assistance of friends and family members
- 3 = National / EU grants
- 4 = Government supported small business loans
- 5 = Market-based bank loan
- 6 = Business Angels
- 7 = Venture Capital
- 8 = Crowdfunding
- 9 = Other:....

Service portfolio

SE1 Which of the following types of IT developments have you invested in in the past 3 years (2015-2018)

MORE THAN ONE ANSWER POSSIBLE

- 1. Introduction, development, expansion, etc. of an integrated Enterprise Resource Planning system (ERP).
- 2. Introduction and development of a Fleet Management System (FMS),
- 3. Introduction and development of technologies supporting warehouse activities (e.g. a barcode system, RFID),
- 4. IT developments (interfaces, VMIs) to respond to customer expectations
- 5. Developments for risk reduction (storage and backup hardware and software tools, value protection equipment),
- 6. Network and multimedia development (internet bandwidth, web pages, etc.)
- 7. Hardware devices (eg, PCs, lap tops, tablets, etc.)

SE2 How do you evaluate your development (on a scale of 1 to 5) with regard to the following IT applications at your company?

ONE ANSWER POSSIBLE

1 = none - 2 - obsolete 3 - needs improvement - 4 more or less appropriate - 5 = modern

- 1. Introduction, development, expansion, etc. of an integrated Enterprise Resource Planning system (ERP).
- 2. Introduction and development of a Fleet Management System (FMS),
- 3. Introduction and development of technologies supporting warehouse activities (e.g. a barcode system, RFID),
- 4. IT developments (interfaces, VMIs) to respond to customer expectations
- 5. Developments for risk reduction (storage and backup hardware and software tools, value protection equipment),

6. Network and multimedia development (internet bandwidth, web pages, etc.)

7. Hardware devices (eg, PCs, lap tops, tablets, etc.)

The respondent

RE1 Your gender

male
female

RE2 Your age

--

RE3 Your highest educational qualification

intermediate
college
university

RE4 How many languages do you speak at least at a conversational level besides your mother tongue?

I don't speak a foreign language
one foreign language
two foreign languages
three or more foreign languages

RE5 How many years have you worked at your current company?

--

RE6 What position do you hold at your company?

manager
middle (level) manager
staff member / employee
other, please specify

RE7 Do you own shares in your company?

no
yes, a minority ownership
yes, a majority or 100% ownership

DECLARATION

I undersigned (name: **Yusmar Ardhi Hidayat**, date of birth: 1981. 01 .31) declare under penalty of perjury and certify with my signature that the dissertation I submitted in order to obtain doctoral (PhD) degree is entirely my own work.

Furthermore, I declare the following:

- I examined the Code of the Károly Ihrig Doctoral School of Management and Business Administration and I acknowledge the points laid down in the code as mandatory;
- I handled the technical literature sources used in my dissertation fairly and I conformed to the provisions and stipulations related to the dissertation;
- I indicated the original source of other authors' unpublished thoughts and data in the references section in a complete and correct way in consideration of the prevailing copyright protection rules;
- No dissertation which is fully or partly identical to the present dissertation was submitted to any other university or doctoral school for the purpose of obtaining a PhD degree.

Debrecen, 2021 May xx

Yusmar Ardhi Hidayat



signature

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