NEAR EAST UNIVERSITY
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THE RELATIONSHIP BETWEEN INFORMATION TECHNOLOGY CAPABILITIES, ORGANISATIONAL INTELLIGENCE, AND COMPETITIVE ADVANTAGE

FAWWAZ TAWFIQ RATEB AWAMLEH

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ACCEPTANCE/APPROVAL

We as the jury members certify the ‘THE RELATIONSHIP BETWEEN INFORMATION TECHNOLOGY CAPABILITIES, ORGANISATIONAL INTELLIGENCE, AND COMPETITIVE ADVANTAGE’ prepared by the FAWWAZ TAWFIQ AWAMLEH defended on 28/06/2021 has been found satisfactory for the award of degree of PhD.

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DECLARATION

I, ***Fawwaz Tawfiq Awamleh***, hereby declare that this dissertation entitled '**The *Relationship Between Information Technology Capabilities, Organisational Intelligence, and Competitive Advantage***' has been prepared myself under the guidance and supervision of '***Assist. Prof. Dr. Ahmet Ertugan***' in partial fulfilment of the Near East University, Institute of Graduate Studies regulations and does not to the best of my knowledge breach and Law of Copyrights and has been tested for plagiarism and a copy of the result can be found in the Thesis.

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ABSTRACT

THE RELATIONSHIP BETWEEN INFORMATION TECHNOLOGY CAPABILITIES, ORGANISATIONAL INTELLIGENCE, AND COMPETITIVE ADVANTAGE

This research aims at clarifying the relationship between IT (Information Technology) capabilities (IT infrastructure, IT business-spanning, and IT proactive stance), organizational intelligence (strategic vision, shared fate, appetite for change, heart, alignment and congruence, knowledge deployment, and performance pressure), and competitive advantage (exploiting market opportunities and neutralizing threats). The data was collected from a sample of 224 employees of different positions in e-commerce organizations in Jordan. IBM SPSS 25 version, testing of correlations, regression, and PROCESS Macro v3.5 were tested. The results of the study showed that IT capabilities and organizational intelligence supporting competitive advantage and the company plays a good job to response in the changes in the marketplace. This study reached empirical evidence to understand better that there is also a need to develop organizational intelligence due to the positive effect between IT capabilities and competitive advantage.

Keywords: IT Capabilities, Organizational Intelligence, Competitive Advantage, E-commerce Companies, Jordan.

ÖZ

BİLGİ TEKNOLOJİSİ YETKİNLİKLERİ, ÖRGÜTSEL ZEKA VE REKABET AVANTAJI ARASINDAKİ İLİŞKİ

Bu araştırma, BT yetkinlikleri (BT altyapısı, BT iş alanı ve BT proaktif durumu), ile örgtütsel zeka (stratejik vizyon, paylaşılan gelecek, değişim isteği, kalp, eşleşme ve uyum, bilginin içerilmesi, performans baskısı) ve rekabet avantajı (pazar olanaklarının kullanılması ve tehditlerin etkisiz hale getirilmesi) arasındaki ilişkiyi açıklamayı amaçlamaktadır. Veriler, Ürdün'deki e-ticaret örgütlerinde farklı pozisyonlarda bulunan 224 çalışandan toplanmıştır. Araştırmanın veri analizi için IBM SPSS 25 sürümü kullanılmıştır. Araştırmada, korelasyon testleri, regresyon ve PROSESS Macro v3.5 analiz yöntemleri kullanılmıştır. Çalışma, BT yetkinliklerinin ve kurumsal zekanın rekabet avantajını desteklediğini ve örgütlerin pazardaki değişikliklere tepkisinde iyi bir iş çıkardığını göstermiştir. Bu çalışma, BT yetkinlikleri ve rekabet avantajı arasındaki olumlu etki nedeniyle kurumsal zekanın geliştirilmesine ihtiyaç olduğunu ortaya koymuştur.

Anahtar Kelimeler: BT Yetenekleri, Kurumsal Zeka, Rekabet Avantajı, E-ticaret Şirketleri, Ürdün.

TABLE OF CONTENT

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

ITC	IT Capability
ITI	IT Infrastructure
ITB	IT Business-Spanning
ITP	IT Proactive Stance
OI	Organizational Intelligence
SV	Strategic Vision
SF	Shared Fate
A. Ch	Appetite for Change
H	Heart
AC	Alignment and Congruence
KD	Knowledge Deployment
PP	Performance Pressure
CA	Competitive Advantage
EMO	Exploiting Market Opportunities
NT	Neutralizing Threats

INTRODUCTION

Background of the Study

In today's challenging business climate, companies must be more adaptable and smarter to respond to fundamental changes, capitalize on market opportunities, and mitigate dangers [Hadj et al. [2020)]. Companies are under pressure to put in more effort to survive in a rapidly changing business climate (Tarafdar & Gordon, 2005; Huang et al. (2012). Besides, Ochara et al. (2018) contended that improving enterprises' periodically internal resources lead to avoiding environmental risks.

In a constantly changing world, organizations must be high approachable in producing new information that has led to a reliance on IT under certain environmental factors [Lu and Ramamurthy, (2011); Wade and Hulland, (2004); Chu et al. (2019)]. There has long been an argumentation on IT's effect on company performance for example; Lu & Ramamurthy, 2006; Castro and Mclaughlin, (2019). The agreement is that IT can prime separate companies to competitive features and that value creation might appear in various ways, severely depending on environmental context and the company's organizational (Sambamurthy et. al., 2012; Galliers et. al. (2020).

Companies have no time to indulge. Therefore, in light of the radical changes driven by advances in IT and the competitive pressures of companies, it must

re-evaluate its competitive features (Jakšič & Marinč, 2019). Where people are on the verge of a profound transformation due to IT developments in communications, and big data analytics (Jakšič & Marinč, 2019). Understanding e-commerce companies in these challenging times is challenging to achieve business goals.

IT is a collection of equipment to obtain, process, store, and distribute audio, visual, text, and digital information through a combination of computing, communications, and video (Galliers et al., 2019). In commonly, IT represents the rapprochement of all sorts of computers, some electronic equipment (e.g., audio and video), all forms of software used with computers, technologies of automation, and communication programs and equipment (Lu & Ramamurthy, 2006).

IT capabilities are necessary for a firm to maintain a chance in competitiveness and achieve business value (Bharadwaj, [2000]. Earlier papers have examined how company-wide IT leads to competitive advantage which presented that in an unsteady business situation, IT helps to get the advantage of new commercial chances, manage fickle changes, and exceptional sustainability threats [Bhatt and Grover,[2005)]. According to Fichman (2004), the function of information technology is to lead and drive the creation of a business strategy to accomplish growth and build and sustain chance in competitiveness. IT-capabilities and leadership exist inside the sector as a benefit to industry leadership [Daňa et al. 2020)].

Many organizations have created and extensively used IT capabilities to gather, process, store, and retrieve information (Galliers et al., 2020; Basheer et al., 2016). As a result, IT has improved businesses' capacity to capitalize on opportunities and avoid risks. IT also reveals the strengths and shortcomings of the company plan (Chu et al., 2019). As a result, incorporating IT into companies aids in understanding what is occurring in the external environment and outlines how to handle incoming data to forecast external environmental elements [Lu and Ramamurthy, (2011)].

Organizational intelligence is an optimal method to efficiently use information acquired and processed utilizing information technology, which may adapt to the external environment, consistent with resourcefulness and vision, as expressed in organizational intelligence [Ismail and Al-Assa'ad, (2020)]. Furthermore, a competitive advantage is a superiority that a firm may attain over its competitors [Diab, (2013); Hadj et al. (2020)].

Customers choose higher-value products and services, thus competitive advantage leads to enhanced brand loyalty [Attaran and Deb, (2018); Fonseca and Domingues (2017)]. Accordingly, IT has improved the company's ability to exploit chances and avoid threats and identify the predicted fortes and faintness, thus enabling it to sense what is happening in the external environment, by processing incoming data to make it able to improve development in an external environment (Lu & Ramamurthy, 2011). The existence of IT capabilities and IT leadership within manufacturing are stared as antecedents to industry leadership (Azma et al., 2008).

Previous theories drop short in explaining the relationship between organizational intelligence and IT capabilities in the current work environment such as the study of Sambamurthy et al. (2012) and Yaghoubi et al.,(2011), and [Neirotti and Raguseo, (2017)]. Moreover, Lu and Ramamurthy (2011) recommend more experimental studies on the correlation between organizational agility and IT capabilities and its character in improving the competitive advantage.

Therefore, relationship companies need to answer to essential conflicts because of IT-driven innovations [Chu et al., (2019)]. While there are a large number of questions about the role of IT, which play a fundamental role in the relationship with companies concerning smart computers that perform companies missions to understanding how a person thinks and behaves becomes increasingly important (Galliers et al., 2019; Wirtz, 2020). Where firms should understand behavioral biases, social behavior, restrained rationality, etc, information spreads rapidly through IT, leaving society vulnerable to manipulation of their environment (Chu et al., 2019). In light of this, IT capabilities have stimulated organizational performance in the company further affecting the competitive advantage of companies' orientation (Jakšič & Marinč, 2019).

Research aims

This research aims to provide an evident explanation of the relationship between ITC, OI, and CA in the modern work environment, represented by e-

commerce companies in Jordan. Thus, contribute to the current literature. The study first theorizes on the commonly observed but less understood assumption that IT and CA contradiction that is IT may enable or impede CA.

The main goal of this paper is to study the impact of IT capabilities and Organisational Intelligence on the competitive advantage of organizations. It tries to present an academic contribution by filling a gap in creating a competitive advantage through IT capabilities with Organisational Intelligence as the mediator.

This research aims to:

1. Clarify if IT capability enhances or impedes organizational intelligence.
2. Illustrate if organizational intelligence enhances or impedes exploring marketing opportunities.
3. Illustrate if organizational intelligence enhances or impedes neutralizing threats.
4. Demonstrate if IT capability enhances or impede exploring marketing opportunity.
5. Demonstrate if IT capability enhances or impedes neutralizing threats.
6. Investigate if IT capability augment organizational intelligence and the two jointly have a positive effect, to enhance exploring marketing opportunity.
7. Investigate if IT capabilities augment organizational intelligence and the two jointly have a favorable effect, to promote neutralizing threats.

Research problem

This study aimed to understand if organizational intelligence has a mediating role among competitive advantage and IT capabilities in business institutes. Understanding e-commerce companies in these challenging times is challenging to achieve business goals.

In light of the rapidly changing environment, it has become necessary for organizations to realize changes in the external environment, and respond to them to achieve sustainability and survival, by exploring opportunities and avoiding threats in the external environment, by making optimal use of the internal capabilities of companies, and accordingly, companies are interested in capabilities and developing them more Because of its impact on the success of companies as a whole.

Information technology and its capabilities are the tools that many companies rely on to gather, operate, store, and retrieve information. Therefore, the greater the capabilities of information technology and the adoption of it by the company, the greater its ability to utilize opportunities and decrease threats, and thus became able to sense what is occurring in the external environment to achieve a competitive advantage, by collecting and processing the data received from it, which makes it able to develop its understanding of its external environment.

Organizational intelligence represents a suitable way to benefit from the information collected and processed using information technology and its

capabilities, through which the company can acclimate to the outside environment, commensurate with its resources and capabilities, and this represents the term of organizational intelligence.

Companies increasingly need to react quickly to the unprecedented and unpredictable changes in the work environment, which prompted them to rely on information technology means to overcome the conditions of that environment.

E-commerce companies are the most affected by the changing environmental conditions and the most resort to the use of information technology, and overcome the changing environmental conditions; they must possess the capabilities of organizational intelligence to achieve the best competitive advantage.

This study expected to have an academic contribution regarding fall the gab of creating competitive advantage through IT capabilities with the help of organizational intelligence as a mediator because the companies need to respond to changes in the work environment is unprecedented and unpredictable speed, which forced them to rely on the means of information technology to overcome the conditions of that environment to gain a competitive advantage by exploiting intelligence organizational.

The e-commerce companies are the most affected by the conditions of the changing environment and most of the refuge for using of information

technology, and overcome changing environment conditions must possess a special style gives it a unique competitive advantage and this technique cannot any to reach the company, unless possessed dimensions of organizational-intelligence, but what is the role of information technology capabilities to enhance the competitive advantage and its existence the mediating role of organizational-intelligence: a question still poses a challenge for companies of different types and forms (Lefter, et. al., 2008).

This research attempts to offer a clear explanation of the relationship between organizational intelligence, competitive advantage, and IT capability in current work environments and thus to contribute to the current literature. The study first theorizes on the commonly observed but less understood IT and competitive advantage conflict that IT may allow or restrict competitive advantage. It establishes the assumption that IT capacity and organizational intelligence are critical in the successful deployment and management of IT resources to gain a competitive edge. Specifically, this study investigates seven main research questions:

1. Does IT capability enhance or impede organizational intelligence?
2. Does organizational intelligence enhance or impede exploring marketing opportunities?
3. Does organizational intelligence enhance or obstruct neutralizing threats?
4. Does IT capability enhance or impede exploring marketing opportunities?

5. Does IT capability promote or impede neutralizing threats?
6. How do IT capability and organizational intelligence have a positive influence to enhance exploring marketing opportunities?
7. How do IT capability and organizational intelligence have a positive influence to enhance neutralizing threats?

Significance of this study

The importance of study stems from the following:

1. This study aims to assist managers and educate them about the importance of IT capabilities and how to achieve competitive advantage through organizational intelligence.

2. The majority of previous studies on this subject targeted advanced companies in (developed countries). Their experience is not necessarily reflected in companies located in (third-world countries), due to cultural, economic, social, political, and religious differences.

3. This study constitutes a source for subsequent studies concerning organizational intelligence, competitive advantage, and IT capabilities.

Limitations of the study

The limits of the current study are divided into:

- Spatial boundaries: The spatial boundaries of this study are represented by e-commerce companies in Jordan.
- Human limits: represented by a case study for all employees in e-commerce companies in Jordan.
- Time limits: This study was completed in 2021.
- Scientific boundaries: The study focused on three central dimensions for IT capability: infrastructure, proactive stance, and business-spanning. The capacity of the IT infrastructure, among these characteristics, highlights the organization's ability to operate its hardware platforms and related software systems. The capacity to demonstrate an organization's ability to successfully support business objectives through IT resources is included in IT business. The proactive IT position, on the other hand, focuses on how businesses leverage current IT resources to create new business possibilities. (Lu & Ramamurthy, 2011; Yizhou Chu et al. 2019). As for organizational intelligence, the researchers used seven important dimensions: shared fate, appetite for change, heart, strategic vision, knowledge deployment, performance pressure, and alignment and congruence (Albrecht 2002; Ismail and Al-Assa'ad, 2020). Finally, the research assessed competitive advantage by focusing on two key dimensions: mitigating risks and capitalizing on business opportunities [Sigalas (2015)]. Neutralizing threats takes three possibilities [fully neutralizing

the competitive neutralizing threats, neutralizing threats all threats existing on the market; and neutralizing threats more effectively than its competitors) by [Hadj et al. (2020)]. Market opportunities can be utilized in three distinct ways (for example: developing all exploited market opportunities; fully developing exploiting market opportunities, and further developing exploiting market opportunities compared to its competitors).

Research hypotheses

This study illustrated the conceptual model, reflecting the findings from the literature review and the aims of this study. According to the concept, organizational intelligence acts as a bridge between competitive advantage and IT capabilities.

The general hypotheses are simplified to the following hypotheses:

H1: IT capabilities have a positive impact on organizational intelligence.

H2a: Organisational intelligence positively affects exploring marketing opportunities.

H2b: Organizational intelligence has a positive effect on threat neutralization.

H3a: IT capabilities positively affect exploring marketing opportunities.

H3b: IT capabilities have a positive impact on neutralizing threats.

H4a: Organisational intelligence has a mediating role among IT capabilities and exploring marketing opportunities.

H4b: Organisational intelligence has a mediating role among neutralizing threats and IT capabilities.

Research Model

"Figure1" illustrates the conceptual model of this study, which reflects the findings from the literature review and the thesis of this study. The model puts forward that the organization intelligence plays a mediating role in the effect of IT capabilities on competitive advantage.

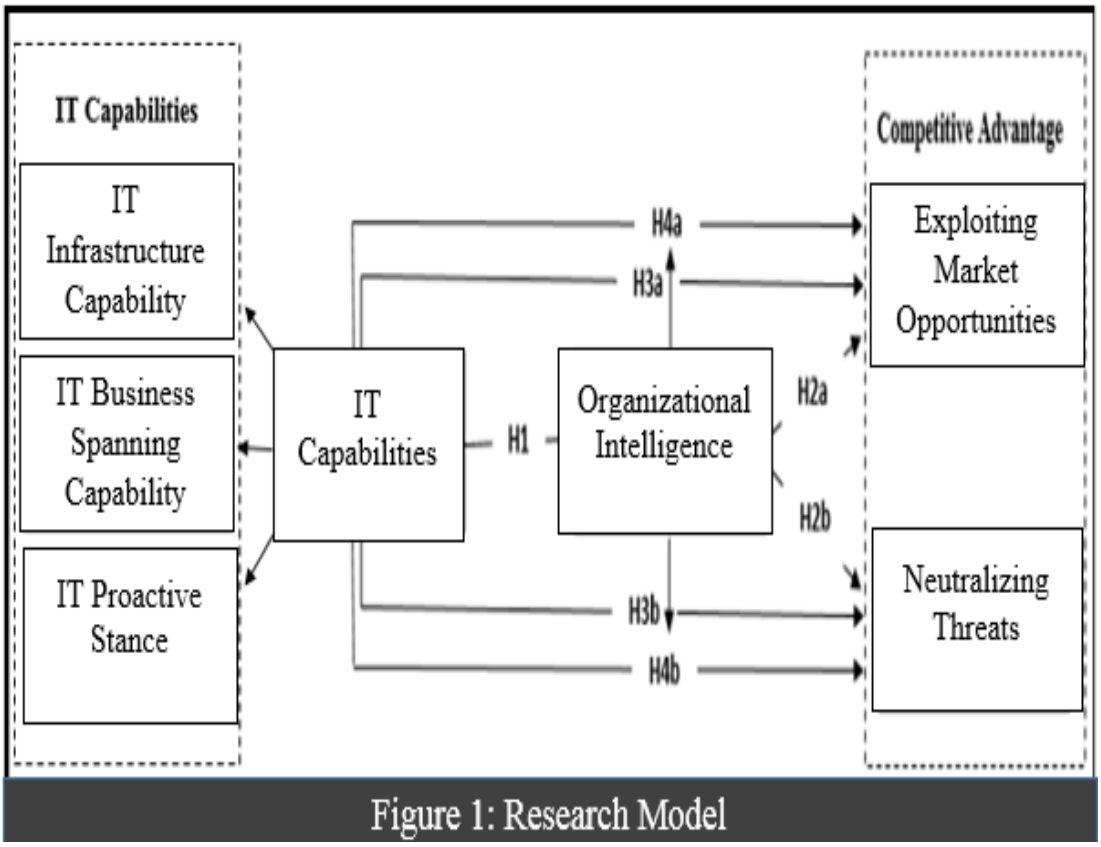


Figure 1: Research Model

“Figure 1": The conceptual model of the study

Definition of Terms

IT Capabilities

Are the abilities of the organizations to perform a common platforms collection such as database, networks, software, physical components, and human skills for managing and defining the effectiveness of this set of common platforms (Zhang, 2005).

Dimensions of IT Capabilities

IT Infrastructure Capability

Involves IT tools as software, hardware, and networks, which are built through systems to provide a technical foundation for product implementation based on process innovation and information technology (Lu & Ramamurthy, 2011).

Business spanning

The capacity of the company's management to solicit and generate new ideas, as well as employ resources to promote business goals and support IT. Furthermore, the firm has a vision for the growth of IT strategy and the integration of IT and business, which allows the company's management to grasp the value of IT (Lu and Ramamurthy (2011) and Basheer et al., (2016).

A proactive stance

involves the company's capacity to operate in the field of search, research of IT solutions and innovations, and creation of new techniques to promote the use of IT (Lu and Ramamurthy, 2011; Basheer. et al., (2016).

Organizational intelligence

the intelligence of established policies as well as all management of the business, which reflecting different methods of reciprocal reinforcement to receive explicit and implicit knowledge and improve the general communication of the organization through achieving specific results at specific times (Shahabad et al. 2012).

Dimensions of organizational intelligence

Strategic Vision

Each strategic organization needing a concept, principle, and theory that let the leaders of the organization valuing things and rewarding them, and asking questions as to who we are, why we exist, what the essential value is given by presidents within, and why the world is acceptable (Albrecht, 2002).

Shared Fate

This is the relationship of people with the organization, which includes stakeholders such as suppliers, and joint members who make success working in a synergy language to achieve the perception), this sensation arises from everyone's knowledge that they are all part of the same compound, which aids them in increasing their power via collective sense and teamwork. (Albrecht, 2002).

Appetite for Change

It is characterized as a challenge, an opportunity for current and new experiences and behaviors, and a chance for a dramatic transformation.

Individuals in these circumstances value re-invention as a business model, replicate problems and encourage them to cope with them. In addition, the organization's needs are connected with various types of change with various types with the organization's strategic vision (Albrecht, 2002).

Heart

The heart was definition by organizational psychologists as the energy used to evaluate one's energy as followers of the organization to contribute through interdependence and relationships levels to obtain an estimate. Thus, identifying the link between their success and the organization's success, which embodies their well to make success [Daňa et al. (2020)].

Alignment and Congruence

It describes framework principles for each individual or group of people's processes, which will begin to overlap and clash. Leaders and designers endeavor to eliminate structural conflicts of intrinsic worth and to improve the adaptation and channeling of one's energy for mutual objectives (Albrecht, 2002).

Knowledge Deployment

This demonstrates that organizational intelligence must include an unlimited flow of knowledge across different cultures while striking a balance among discussion about the sensitivity of both information and innovations, and dealing with questions that require awareness and attention with an open mind (Albrecht, 2002).

Performance Pressure

It believes that the employees have a desire for greater work and a notion of what should be accomplished. Leaders encourage and increase workers' belief in additional effort, but this has an effect only when all members in the business embrace and see it as a reaction to and translation of their set of expectations and the fundamental processes of collaborative success (Albrecht, 2002).

Competitive advantage

Porter, M. E., & Kramer (1985) described the competitive advantage as a feature that a company can different over its competitors; an individual can obtain competitive by offering customers better and higher value than competitors. A company's competitive advantage is its capacity to outperform competitors in the same industry. It attracts consumers, establishes the organization's or its goods' status, and increases perceived customer value and happiness [Acquaah and Yasai-Ardekani, (2008)]. Besides, Hadj, et al. (2020) The ability of a firm to outperform competitors in the same industry is its competitive advantage. It attracts customers, establishes the standing of the business or its products, and enhances perceived customer value and satisfaction.

Dimensions of competitive advantage

Exploiting market opportunities

This is the ability of CA to the exploitation of business opportunities and comprehensive for the business opportunities exploitation of business opportunities more than others (Hadj et al. 2020).

Neutralizing threats

This is the ability of competitive advantage to the neutralization of business threats and comprehensive neutralization of the business threats more than other competitors [Hadj et al. (2020)].

CHAPTER 1

LITERATURE REVIEW

1.1 Introduction

The study variables were reviewed through what was mentioned in the previous studies, to formulate the literature review for this study. It is the basis of the field study, and this chapter has been divided into two parts:

First: The literature review for competitive advantage, organizational intelligence, and IT capabilities, and in terms of concept, dimensions, and importance. Briefly explain what is the role of IT capabilities in modern companies and institutions and the necessity of using them and their impact on employees in the organizations and the organizations as a whole.

Second: It deals with reviewing the most important literature dealt with in previous studies about the current study.

1.2 IT capabilities

The ability of IT indicates the company's ability to reconcile the needs and compatibility of the IT business, and the dissemination of information technology to enhance business procedures in a cost-efficient way and clarify

the reform and long-term assistance of the existing systems around IT, which is the capability of the various IT resources to achieve an intangible advantage (Karimi, et al. 2007). Furthermore, IT refers to the organization's ability to deploy a collection of common platforms like networks, physical components, social skills, software, and databases] and to assess how well the organization manages this set of common platforms (Zhang, 2005).

The previous study conducted by Lu (2006), clarifies the effect between the ability of IT and the company's performance to achieve organizational agility as a mechanism for mediating the impact of the organizational performance of IT. Many businesses have developed and widely implemented IT capabilities to gather, retrieve information, process, and store, [Agarwal & Sambamurthy, 2006; Basheer et al. (2019)]. As a result, IT has improved businesses' capacity to capitalize on opportunities and avoid risks. Furthermore, it predicts the company strategy's strengths and shortcomings. As a result, integrating IT into company’s addresses the feeling of what is occurring in the external environment and outlines how to process the incoming data to improve the external environment (Lu & Ramamurthy, 2011; Chu et al. (2019)].

Over the last decade, much study has been conducted on the function of information technology [IT] in producing corporate value. Previous study findings, debated under the term "the productivity dilemma," indicated a poor connection between IT investment and productivity. Recent studies have discovered favorable and greater impacts, which they attribute to changes in corporate procedures, practices, and structures. There is a need to enhance

the use of techniques and metrics to assess the intangible benefits of information technology (Bhatt & Grover, 2005). Thus, while the overall impact of information technology is indisputable, the question remains whether information technology can provide different advantages to individual companies (Bhatt & Grover, 2005).

Information technology capabilities are the capabilities of an organization to deploy [IT] resources and other institutional resources (Bharadwaj, 2000). The company's resource-based view presents that companies need still competition in the marketplace. [IT] capabilities by integrating [IT] infrastructure, intangible [IT]-support resources, and [IT] human resources to obtain competitive advantages competition. (Bharadwaj, 2000; Wade, & Hulland, 2004). So, due to the homogeneity and ubiquitous best practice plans (like ERP system), [IT] systems, scientists begin to question the direct effects of [IT] capabilities on company behavior (Saldanha, et al. 2017).

The literature confirms that the isolated capabilities or resources of the project have no value, while the value appears when it is allowed to use it (Nambisan, et al. 2019). Under the background of digital business, [IT] capabilities can assist organizations in creating digital links in value chain activities and entities (Nambisan, et al. 2019; Nwankpa & Roumani, 2016). Thus, IT capabilities can help businesses to adapt to ever-changing market needs through the use of digital technology. Previous research assessed total IT capabilities on a multidimensional scale (Lu & Ramamurthy, 2011).

1.2.1 Importance of IT capabilities

Even though this work has begun to reach company-wide IT capacity for competition, IT capacity is important for a firm to generate business value and sustain a competitive edge (Lu & Ramamurthy, 2011).

In today's modern world, IT capabilities are becoming increasingly important, since IT is subjected to numerous imitations and cloning by rivals and other organizations, and all firms need to acquire IT capabilities to forecast unprecedented and unpredictable external situations.

Therefore, the concept of IT capabilities appeared to create IT forces that make the process of imitation and cloning more difficult and complex, through three dimensions that enable it to create robust capabilities: (strengthening the IT infrastructure, and the ability of management to exploit information technology resources to enhance goals, and portability The company is the first to develop innovations to create new opportunities).

These capabilities have a role that enables any organization to continue and succeed in its work to be a leader in its field of work, especially in modern organizations, as the impact of technological capabilities on the workers of the organization is solid, which helps it to face competitors and external challenges from matters of imitation, piracy and other matters that It may weaken the company and threaten it to exit from the market.

1.2.2 Dimensions of IT capabilities

IT capabilities as a concept were defined in this study as having three scopes: business spanning, infrastructure, and a proactive posture. The capacity of an organization to organize hardware platforms and accompanying software systems is represented by its IT infrastructure capability (Yizhou Chu. et. al. [2019].

1.2.2.1 IT infrastructure

IT materials like networks, software, and hardware created by systems that serve as a technical foundation for product execution built on IT capacity and process innovation (Lu & Ramamurthy, 2011 and Basheer. et. al. 2019). Jabbouri et al. (2016) ensure the significance of IT infrastructure from its function as one of the main materials employed in the help vigor of the workplace market. Hilton & Platt (2013) ensure that getting high effectiveness in companies demands exploitation in IT materials.

IT infrastructure companies can quickly implement new IT plans. Telecommunications companies can use data modeling and encryption to instantly create IT-based services such as the Internet that are appropriate with environmental fluctuations (Overby et al. 2006). Moreover, IT infrastructures can be achieved efficiently and effortlessly by IT staff with knowledge in telecommunications firms, as they are viewed as a channel for converting hardware components into valuable IT services (Fink and Neumann, 2007).

1.2.2.2 IT business spanning

IT business spanning concentrates in practice in paying attention to people's daily activities. Furthermore, this means building recognition of how to produce such group activities in a historical and social context, which gives structure and meaning to what humans do (Basheer et al. 2019). Thus, gather high levels of IT knowledge and competence intensive cooperation among IT and workplace employee management (Sawyer et al. 2010). groups participate in a variety of organizations of practice (Bassellier and Benbasat, 2004) with distinguished practices, knowledge, and languages. While information system personnel have highly expert knowledge about the enhancement and unification of IT, business human has hard-won knowledge about procedures and consumer in their expert scope (Carlile, 2004). thus, important knowledge boundaries exist between this physical knowledge (Sawyer et al. 2010).

In general, the business spanning Capacity points out an integrated relationship among comprehensive capabilities within a firm and decision-making, for superior analysis, planning, and implementation of organizational strategies. And then this dimension can be defined as how firms use IT equipment to achieve and do work goals and goals; the company needs to strategically build the IT vision and mission and present it to decision-makers to understand the privacy of tangible and intangible IT assets (Wade and Hulland, 2004).

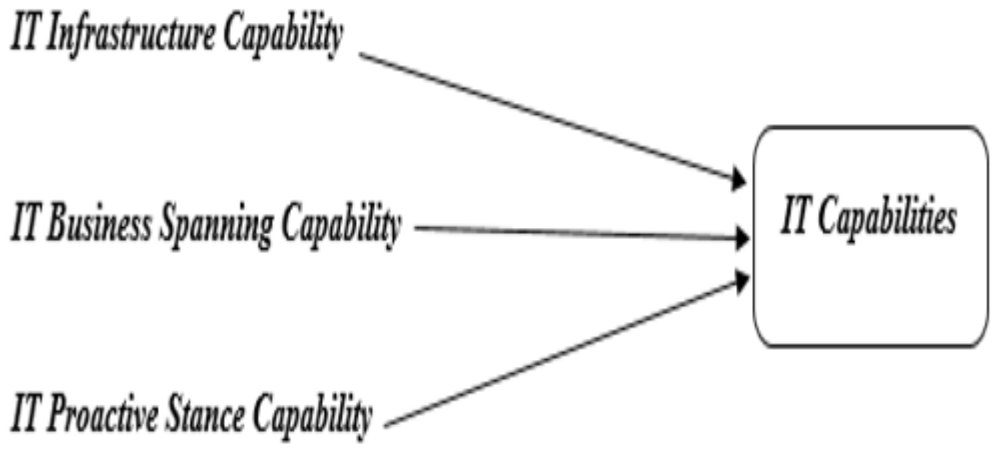
1.2.2.3 IT proactive stance

A proactive attitude indicates the business's capacity to operate in the field of research, seeking IT solutions and invention, and discovering new methods to improve the usage of IT and its direct influence (Lu & Ramamurthy, 2011; Basheer et al., [2016]). Additionally, firms can expect and feel major changes brought about by the rapid advancement in IT. According to Galliers (2006), this enables firms to quickly explore and take the best opportunities to attitude fulfills the firm with frequently developing knowledge.

With proactive IT, the parking firm may deal seamlessly with approval and implementation of the newest IT and stay out of the results of technology embargo (Swanson and Ramiller, 2004). Moreover, telecom firms may reformulate and reuse their available IT to be ready to provide innovative services to the market (Bataineh, et al. 2015).

IT proactive attitude symbolizes the business's capacity to work in the field of study and the search for IT solutions and inventions to find new methods to minimize the use of IT, as well as the company's quick effect on the use of IT (Lu & Ramamurthy, 2011; Basheer et al. 2019).

"**Figure 1. 2**" below portrays the dimensions of the IT Capabilities:



"Figure 1.2": Dimensions of IT capabilities, main resources: (Lu & Lamamurthy, 2011; Yizhou Chu et al. 2019).

1.3 Organizational intelligence

Organizational intelligence is the entire organization of a firm as well as the intelligence of formulating procedures. It represents reciprocal reinforcement methods for receiving implied and clear information and enhances the general contact of the organization to accomplish particular goals at certain periods (Shahabad et al. 2012). The capacity of an organization to mobilize all of its available mental powers and effort on the ability of the mind to attain business purposes is referred to as organizational intelligence (Thannhuber et al., 2017).

Organizational intelligence refers to an establishment's ability and capability to mobilize and focus all of its brainpower on achieving its purpose (Albrecht, 2002). According to Albrecht (2002), just employing bright individuals with

great brainpower cannot ensure the business's success and growth among its rivals, because when intelligent people gather together in an organization, collective ignorance emerges (Albrecht, 2002). Only one approach to address this is to promote and develop organizational intelligence as a new idea in the literature of organization and management in the twenty-first (Daňa et al. 2018). Organizational intelligence is defined as an organization's capacity to organize and integrate its forces, abilities, and talents, and to focus them to fulfill the organizational purpose. It is thought that there is a need to identify and focus attention on this aspect as an effective measure of performance, as well as to establish a suitable atmosphere for active involvement of employees and management (Shahabad et al. 2012).

Organizational intelligence refers to a company's overall ability to acquire information, innovate, produce knowledge, and act effectively based on that knowledge (CH et al. 2015). Organizational intelligence refers to the ability to acquire, process, evaluate, and communicate information required in decision-making processes (Daňa et al. 2018; Rezaei, 2012). According to this school of thinking, “intelligence” is viewed as a substance or object that an organization possesses, on which it acts, and therefore affects its surroundings. (Ismail & Al-Assa'ad, 2020).

The cognitive viewpoint emphasizes a logical formal structural approach that emphasizes intelligence as a fixed feature of organizations; because organizations have information processing systems, they have intelligence (Xiaobo, 2006). According to the ‘fixed property’ perspective of intelligence, all

organizations have intelligence, and neither the organizations nor the individuals inside them are stupid. (Daňa et al. 2018).

In practice, however, while some companies employ their information-processing skills efficiently, operating "intelligently," others do not, responding less intelligently (Balouei & Ghasemian, 2014). Furthermore, rather than a definition or explanation of organizational intelligence, this viewpoint gives a description or a consequence. For example, CH et al. (2015) contend that the term intelligence is sometimes confused with productivity. He argues that merely claiming that one plant is more productive is insufficient to explain why one factory produces more than another. According to him, the phrase "productive" means nothing; it is simply another name for what is already known. Although “productive” is a useful descriptive phrase, it is ineffective as an explanatory notion. Finally, considering intelligence as an object leads to reification and circular reasoning issues, because the cognitive viewpoint stresses the computational approach illustrated by the work of mental representations connected to perception, attention, and memory, as well as information technology (Rezaei, 2012).

In the cognitive viewpoint, the components of organizational intelligence include information-processing capability structures such as the ability to collect information, analyze it, disseminate it, store it, and apply it (Xiaobo, 2006) (Xiaobo, 2006). The capacity of a company to obtain data from different sources, such as economic evaluations, customers, social reports, rivals, financial statements, consultants, acquisitions and mergers, new workers, and

so on, is referred to as its information acquisition capabilities. The capacity to build, arrange, filter, and frame information in a meaningful way is referred to as information interpretation competence. (Daňa et al. 2018).

The ability of an organization to distribute and share information in organizations through a variety of means, including formal communication means as; bulletin boards, reports, memos, and face-to-face meetings) as well as informal communication means, is referred to as information dissemination capability like; coffee-breaks, hallway meetings, water-cooler discussions, and so on] (Ismail & Al-Assa'ad, 2020). The capacity to retain information in the organization's history, procedures, and beliefs is referred to as information storage capability. The capacity to use or exploit information to address problems throughout the new product development process, technology transfer, or marketing and administrative procedures are referred to as information implementation capability (Balouei & Ghasemian, 2014).

1.3.1 The concept of organizational intelligence

Albrecht says that the concept of organizational intelligence: Is the ability of the organization to mobilize all its mental powers available to it, and focus on the ability of the mind to achieve this task (Albrecht, 2002), and it is an indicator to measure successful business crisis management and this meaning includes the following aspects:

1. Extensiveness: means the comprehensiveness of the concept of organizational intelligence, so that leaders can draw all hypothetical aspects of the success of the organization within a familiar framework

to refer to deliberation, conversation, evaluation, and the right of seniority.

2. Realism: We should deal realistically with the daily work and life of organizations. Imagination and idealism depend on expectations of collective behavior and the chances of long-term success.

3. The perspective: The point towards which the types of actions, strategies, and practices that present opportunities for achieving the desired situation should be identified.

4. Homogeneity: Taking into consideration actual behavior patterns, beliefs, value systems, traditions, prohibitions, and mobilization in the collective relations that are unique to the organization from the rest of the organizations.

5. Development: Programs that make progress and improvement possible should be presented, by the smart application and diligent efforts to obtain correct practices in place, and leaders are committed to improving degrees of organizational intelligence.

1.3.2 The importance of organizational intelligence

In the 1980s, academic studies began to emphasize the relevance of organizational intelligence for intelligent organizations when (Porter) identified the importance of smart organizations and competitive organizations from the

human point of view, mental strength is important in doing business, and combining this power leads to a great collective action (Porter, 2011).

As for physicists, according to this analysis, they say: The loss of this mental strength leads to (anthropology), which is intended to erode the universe according to the view of physicists, so the synchronization process between mental energy and the output energy is a method that leads to a high result of its kind in the organization's work of the resulting synchronization processes on these mental powers and teamwork as a result of cooperation (CH et al. 2015).

It defined (the smart organization) as the ability of the organization to use all its mental energies and focus that mental strength to carry out its tasks. That the intelligence of the organization results from the following view to make the organization more successful in the environment, managers should start well as it should be a belief in other good organizations in this field (Daňa et al. 2018; Rezaei, 2012).

1.3.3 Dimensions of organizational intelligence

IT capacity and organizational intelligence are critical for preparing the organization for the formation of contemporary organizations, which the researcher refers to as possessing the memory of their organizers (CH et al. 2015). IT has an influence on workers in smart firms, where workers are regarded as the roots of smart organizations, and where IT serves as a tool to attain organizational intelligence (Daňa et al. 2018; Rezaei, 2012).

1.3.3.1 Strategic vision

Signifies the strategic administration's requirement for a principle, theory, or concept. In other words, it is the response to the administration's leader's queries. An example, what the initial value within is, who we are, why we exist, and why the world accepts, values, and rewards certain things (Hamad, 2019. The capacity to define and develop your vision is essential for becoming the first of its type in strategic management leadership. And it entails establishing an IT Strategic Vision that attempts to identify methods to accept new technology that helps to the progress and strengthening of IT Infrastructure (Reddy, 2006).

1.3.3.2 Shared fate

Most people's relationship with the organization comprises parties with interests as; [Suppliers, and joint members who create success working in a synergy language to accomplish the perception]. This sensation arises from everyone's realization that they are all in the same compound. They gain power through their collective intuition and collaboration [Ismail and Al-Assa'ad, 2020]. The notion of shared destiny stretches back to the years between World Wars [I and II]. Overall, the goal of this phrase was to attain shared destiny to remove ethnic differences among persons in society in all sectors, which was then implemented in organizations to increase the degree of poverty in our current day (Chen, 2012).

1.3.3.3 Appetite for change

It can define change as a challenge, a chance for new and existing experiences and behaviors, or a chance for dramatic change. Persons in these contexts perceive the need to re-invent as a business model, as well as to replicate difficulties and motivate them to cope with them, and organizations require various sorts of modifications in the organization's strategy [Ismail and Al-Assa'ad, 2020]. Besides, Smart organizations reflect the ability of large companies to modify the internal environment in response to rapid external environmental developments by encouraging actions to engage minds and patience to face challenges and try new experiences (Xiaobo, 2006).

1.3.3.4 Hart

To create such an assessment, according to the emotional psychologist's definition of Hart, it is the power left to measure one's energy as members of the organization to give crossways and beyond the degrees of interdependence and connections. Identifying the association between their success and the success of the organization, which represents their desire to succeed (Daňa et al. 2018).

1.3.3.5 Alignment and congruence

Describe how to create basic rules for the group's operations when they begin to clash and overlap. Inventors and leaders seek to eliminate structural conflicts of inherent worth and to facilitate the adaptation and channeling of one's energy to common goals (Albrecht, 2002). Alignment and congruence are defined by some as managing discrepancies and disparities between

various measurements, specifications, processes, techniques, systems and making them compatible and meant to minimize duplication of labor exertions [Balouei and Ghasemian, 2014].

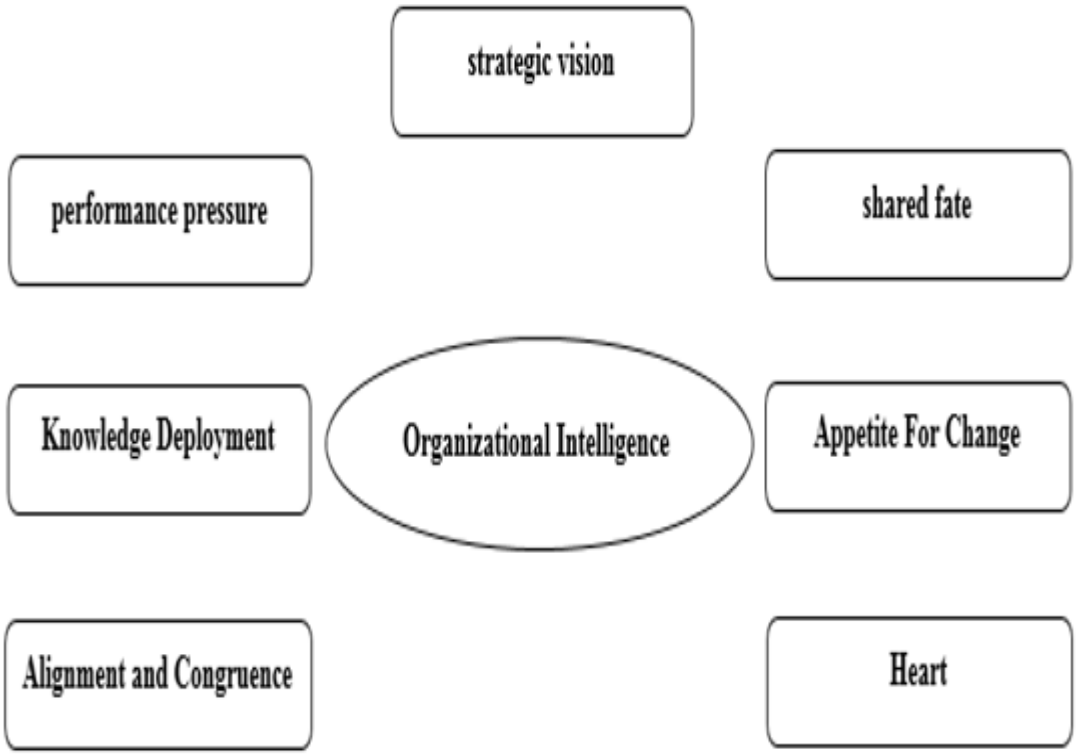
1.3.3.6 Knowledge deployment

Illustrates how organizational intelligence could allow the free flow of knowledge across cultures by balancing conversation regarding information sensitivity and new ideas, as well as dealing with challenges that need attention and an open mind (Hamad, 2019). At the end of the birth of the Universal Mind or the Universal Mind, whose initial evolutionary stages occur with the expansion of the global economy, which will meet the human knowledge system for the birth of the Universal Mind (Lefter et al. 2008; Ismail & Al-Assa'ad (2020).

1.3.3.7 Performance pressure

The workers' desire for additional work, as well as their understanding of what they must do. Leaders encourage and support employees' conviction in additional effort, but this has an impact only if all members of the organization embrace and see it as a conversion and reaction to their set of expectations and fundamental processes of common success [Daňa. et al. 2018].

“Figure 1. 3” below portrays the dimensions of organizational intelligence:



“Figure 1.3": Dimensions of organizational intelligence, main resources: (Albrecht, 2002; Ismail & Al-Assa'ad, 2020).

1.4 Competitive advantage

According to Porter & Kramer (1985); A competitive advantage is a feature that a firm may have over its competitors; one may gain competition by providing better and more value to consumers than competitors. According to [Hadj et al. (2020)], The source of brand loyalty is the target market's favored distinctive products or services, which are characterized as a competitive advantage. Competitive advantage refers to a company's ability to outperform competitors in the same industry. It attracts customers and builds a reputation for the company or its products, while also improving perceived customer value and happiness [Acquaah and Yasai\Ardekani, (2008)].

Understanding a firm's sources of competitive advantage has been a key focus of strategy study (Sigalas, 2015). The idea of persistent competitive advantage is frequently connected with a firm's value creation strategy, the advantages of which cannot be simply reproduced by others in the present or future. Traditional models emphasize firm-internal processes, resources, or dynamic skills, but value creation in the digital economy is the outcome of collaboration across many economic players (Acquaah & Yasai-Ardekani, 2008).

To pursue value cocreation activities, businesses have begun to open up their value creation structures and processes by working with other enterprises in various forms (Diab, 2014). Rather than retaining big, vertically integrated companies, organizations develop multi-firm networks and community-based structures that are “based on a strategy of persistent exploration of an increasing range of complementary markets whose players continually adapt technology to new uses’ (De Pelsmacker et al., 2005). As a result, the focus of value creation has migrated from individual businesses to inter-organizational networks, as has the structure of organizational forms (Hadj et al., 2020).

In terms of social, professional, and trade ties, firms have grown more entrenched in inter-organizational networks (Dishman & Pearson, 2003). Digitization has accelerated this evolution to the point where companies' modes of operation have shifted from competition to cooperation to collaboration as a result of social and technical factors (Hamad, 2019). Interorganizational networks involve a company's interactions with suppliers,

consumers, rivals, or other organizations that span industries or nations (Yaghoubi et al., 2011). Strategic alliances, joint ventures, franchising, long-term marketing, and licensing contracts, reciprocal trade agreements, R&D collaborations, buyer-supplier linkages, director interlocks, e-commerce ties, personnel movement links, or cross-patent citation ties are examples of such arrangements (Diab, 2014).

A company's marketing plans are created by first defining the target market for its products or services by Dishman & Pearson, (2003). It then creates a marketing mix, which is a specific combination of product, price, promotion, and place as distribution and delivery functions in the supply chain that is intended to increase sales to the target market by Nasabi & Safarpour, (2009). In a specific industry, a unique combination of these characteristics helps businesses to compete more successfully, assuring profitability and sustainability (Hamad, 2019). A firm's sales and profit can be increased, for example, by coordinating diverse product offers and related pricing discriminations with sales promotions and excellent logistics.

Expansion into similar product lines is also a viable approach. According to Porter (2011), expanding into similar product lines can capitalize on the transfer of expertise or the sharing of operations such as advertising and distribution, resulting in a competitive advantage. By attaining economies of scale and effectively utilizing business resources such as market intelligence, managerial or technical experience, and knowledge, sharing may reduce expenses. Internet firms, like conventional businesses, can expand their

product lines into sectors relevant to their present product lines (Yaghoubi et al., 2011).

The research on competitive advantage identifies two measures: capitalizing on market opportunities and mitigating risks [Sigalas (2015)]. This procedure appears to be adequate since it gives a clear and practical measure of competitive advantage that can enhance the executive's understanding of the conceptual nature and basic manifestations of competitive advantage [Hadj et al. (2020)].

There are three approaches to capitalizing on market opportunities such is the development of all exploiting market opportunities, the development of more exploiting market opportunities than its rivals, and the development of all utilizing business opportunities. Furthermore, mitigating dangers necessitates three options including; fully neutralizing the competitive neutralizing threats, eliminating all market risks, and neutralizing threats more effectively than competitors [Hadj et al., (2020)].

1.4.1 Exploiting market opportunities

The ability of competitive advantage to the exploitation of business opportunities and comprehensive business (Hadj et al. 2020). Moreover, finding the best time to take advantage of opportunities is an important step in producing good work to learn the importance of investing in the general procedure of job success (Kaur & Mehta, 2016). Important work performances prior exploitation involves market study on possibility customer request (Li &

Liu, 2014), further enhancement and testing of technologies enhancement and build of group management, and produce support from stakeholders (e.g., investors, government, employees, and incubator manager (Prahalad, 2009). These works provide entrepreneurs with significant resources to take better benefits of the opportunity (Castro & McLaughlin, 2019).

Although a lot of academic interest has concentrated on discovering and recognizing opportunities to generate new products (e.g., Hadj et al. 2020; Castro & McLaughlin, 2019), little research concentrates on the decision to initiate the exploit. Also, Sigalas (2015) suggest that the vision of the company based on resources provides great potential to help academics address issues of entrepreneurship.

This insight into the significance of marvels to enhancing pioneer benefits (e.g., Protection vs counterfeiting extends the time of the leader, allowing him to take advantage of the pioneer advantages) (Castro & McLaughlin, 2019).

Exploiting market possibilities may be done in three ways: development of all EMO, development of EMO, and development of EMO greater than others (Hadj et al. 2020).

1.4.2 Neutralizing threats

The ability of competitive advantage to the neutralization of business threats and comprehensive neutralization of the business threats more than other competitors. As a result, neutralizing threats encompasses three options:

neutralizing all threats on the market, totally neutralizing competitive neutralizing threats, and neutralizing threats more successfully than rivals [Hadj et al. (2020)].

1.5 Electronic Commerce companies

Electronic Commerce refers to the purchase, sale, or transfer of data of goods and services through the electronic network. It has become popular over the years because services are provided from home or office with the ultimate convenience (Islam & Eva, 2019).

Besides the innumerable benefits of an e-commerce structure, there are a certain number of threats that these online businesses need to address to survive. These challenges include verifying an individual's useful identity to confirm a case, whether it is a real customer or a competing bot trying to disrupt business analytics (Kwilinski, et al., 2019). With the barriers removed in this free market, most companies the number of competitors is increasing day by day. This increased competition often makes it very difficult for companies to operate at a steady rate if they are not careful. The reliance of many companies on search engines and website optimization has led to the problem.

It requires companies to stay up-to-date with search engine policies to stay relevant to consumer searches or risk the chance of error. It also made it necessary for companies to track the strategies and activities of their competitors to learn from their mistakes and achieve better performance (Hamad et al., 2018).

One of the main problems that online sellers have to face is maintaining customer loyalty. Online consumers are known for wanting to take advantage of it. Companies need to be careful about the changes they make or their promotion methods. A simple mistake can cause customers to resort to many alternatives available online. These problems are often considered difficult, and can be fixed and maintained (Tandon et al., 2018).

On the other hand, the arguments presented in the literature of Mohtarzadeh et al. (2018) point out that a significant challenge can arise regarding the implementation of e-commerce within an organization that could be primarily related to its willingness to implement. Also, Lack of staff capacity is an important problem that creates obstacles for organizations concerning e-commerce facilities.

Consumers may quickly gather information about items or services on the Internet without having to drive to storefronts to check things and compare pricing (Diab, 2014). In the offline market, investigating product offers may be highly costly and time-consuming (Yaghoubi et al., 2011). As a result, customers rely on product suppliers and merchants to assist them in their search, while suppliers and retailers profit from the situation by charging higher costs. Consumers end up spending more and sometimes not receiving the goods they desired. This is not the case with e-commerce. A thorough search of product offers is accessible on the Internet at almost no cost. Companies are driven to decrease costs because consumers can readily compare prices and locate comparable replacements (Porter, 2011). Companies cannot gain a

competitive edge merely by taking advantage of customers' search expenses, as they did in the physical market (Roudriguez et al., 2002). Companies may also make it more difficult for consumers to compare their items by distinguishing their products from others. Product bundling is one potential competitive approach (Diab, 2014). Product bundling enhances the benefits of the entire bundle, preventing customers from comparing separate goods. In response to falling computer prices, Gateway, for example, began combining its Internet services with computers (Porter, 2011).

Product (or service) bundling mitigates the danger of product replacements as well as competitiveness among current companies (Hamad, 2019). Another method is to introduce specialized items, which counteracts the danger of product replacements, new market entrants, and rivalry among existing businesses (De Pelsmacker et al., 2005). Companies may collect information, identify target consumers, and better offer products or services to fulfill consumers' requirements by leveraging the Internet's direct connection to consumers (Nasabi & Safarpour, 2009). Companies can also get information about new goods that are sought by certain sectors of the market. Companies may charge greater pricing by developing items that satisfy the needs of consumers in these niche markets (Azma et al., 2008). Customer-centric strategy is another approach connected with specialized items or innovation. In contrast to a product-centric approach, which pushes items to customers, a customer-centric strategy gathers information from customers to enhance and tailor products (Azma et al., 2008).

Table 1.1 below portrays the operational definition of the Research variables with supporting literature:

Table 1.1: Research Variable

Construct	Operational Definition	Supporting Literature
IT Capabilities	Are the abilities of the organization to implement a set of common platforms (e.g., physical components, networks, database, software, and human skills)	Zhang, 2005 Lu & Ramamurthy, 2011 Chu, et al. 2019
Infrastructure	Includes IT materials (e.g., hardware, software, and networks), built through systems, which provide a technical basis for product implementation based on information technology and process innovation	Lu & Ramamurthy, 2011 Chu, et al. 2019
Business Spanning	The company's management's ability to take new ideas and use the resources to support IT and promote business objectives	Lu & Ramamurthy, 2011 Basheer et al., 2016 Chu, et al. 2019
Proactive Stance	Represents the company's ability to work in the field of exploration, search for IT solutions and innovations and find new ways to enhance the use of IT and its immediate impact	Lu & Ramamurthy, 2011 Chu, et al. 2019 Basheer et al. 2019
Organizational Intelligence	The full management of the business as well as the intelligence of established policies	Shahabad et al. 2012 Albrecht, 2002 Ismail & Al-Assa'ad, 2020
Strategic Vision	Represents the need of the strategic organization for theory, concept, or a principle. In other words, it is the answer to the organization's leader's questions	Albrecht, 2002 Ismail & Al-Assa'ad, 2020
Shared Fate	The association of most people with the organization, which includes parties with interests (e.g., suppliers, and joint members who make success working in a synergy language to achieve the perception)	Albrecht, 2002 Ismail & Al-Assa'ad, 2020
Appetite For Change	A concept defining change as a challenge, an opportunity for new and existing experiences and practices, or an opportunity for radical change	Albrecht, 2002 Ismail & Al-Assa'ad, 2020
Heart	It is the effort used to assess one's energy as members of the organization to contribute across and above the interdependence and	Albrecht, 2002 Ismail & Al-Assa'ad, 2020

Alignment & Congruence	Explain setting rules for the operations of each group or group of individuals, they will begin to clash and overlap	Albrecht, 2002 Ismail & Al-Assa'ad, 2020
Knowledge Deployment	Elucidates that organizational intelligence should ensure a free flow of knowledge through different cultures	Albrecht, 2002 Ismail & Al-Assa'ad, 2020
Performance Pressure	The belief that the employees have for more work and it is also the sense of what should be accomplished	Albrecht, 2002 Ismail & Al-Assa'ad, 2020
Competitive Advantage	The ability of a company to outperform the competitors within the same industry. It attracts customers and builds prestige for the organization or its products and increase perceived customer value and satisfaction	Hadj et al. 2020 Sigalas, 2015
Exploiting Market Opportunities	The ability of competitive advantage to the exploitation of business opportunities and comprehensive for the business opportunities exploitation of business opportunities more than other	Hadj et al. 2020 Sigalas, 2015
Neutralizing Threats	The ability of competitive advantage to the neutralization of business threats and comprehensive neutralization of the business threats more than other competitors	Hadj et al. 2020 Sigalas, 2015
E-Commerce Company	Electronic Commerce refers to the purchase, sale or transfer of data of goods and services through the electronic network	Islam & Eva, 2019 Hamad, 2019

1.6 Previous studies

This section deals with a review of the most important literature that was dealt with in the sequence of previous studies from past studies to contemporary studies on the current study, as follows:

Carayannis & Alexander (2002) aims at a conceptual summary of a general theory of high-level technological learning within and between companies and attempt to test the strength of the link between technological learning and market performance in selected groups of multi-sector companies over several years. After examination of the relevant existing literature, this document builds

an integrated multi-dimensional framework for analyzing technology learning activities and their impact on a company's performance in the market. Experimental research was done using a subset of the ideas in this framework to examine the link between technical learning effort and market performance. The study combines standard quantitative learning measures with a qualitative indication. It is constructed by an inductive analysis of business annual reports. Empirical study reveals some strength in the link between technical learning and market success, although this relationship is dependent on time and non-linear business variables. To cover all elements and degrees of technological learning, particularly the contrast between advanced' strategic and tactical' learning and basic 'operational' learning.

A study of Zhang's (2005) aim of this thesis is to seek a better understanding of the relationship between information technology capacity, organizational culture, and export performance in the context of the birth of global companies. To achieve this purpose, three experimental studies were presented in this thesis used to develop a theoretical model to test the possibility of generalizing the proposed model, and data were collected. From both China and the United States, the first experimental study in the literature on the ability of information technology and the development of scope for measuring information technology capacity, the results showed that information technology capacity is a multi-dimensional building consisting of four components, namely: (Information technology engineering, human resources, and infrastructure) The second pilot study examines differences in the way that IT capacity is viewed in China and the United States, and takes the third pilot study to

present the resource-based and argues that capacity can be viewed as one of a company's resource and when it affects Well it will perform better.

A study by Ying Lu (2006) aimed to investigate the depth of the relationship between the ability of information technology and the performance of companies to achieve agility as a mediation mechanism in determining the effects of the organizational performance of information technology. The study sample included analysis of data from a field survey of senior businessmen in 125 organizations demonstrate satisfactory building validity, and the results of the study showed a dominant influence of the ability of information technology knowledge and the mediating role of agility by linking the ability of information technology to perform, and that this study seeks to expand, refine, and test the ability of the information technology tool, and to determine the effects The contextual uncertainty as well as the agility mechanism in linking the ability of information technology to perform.

A study by Lefter et al. (2008) aimed to discuss the Romanian companies ’perspective on organizational intelligence, considering organizational intelligence the extent of employee awareness, and the extent of investment in the development trend in the industry. Seven dimensions of organizational intelligence (strategic vision, shared fate, Appetite for Change, Heart, Alignment & Congruence, Knowledge Deployment, and performance pressure) were considered and tested on the sample of the study, which represents random development of the total companies operating in Romania in various industries. The results of the study came by measuring each

dimension of organizational intelligence from the point of view of human origins. The study recommended following the approach approved by the study to achieve the strategy of organizational intelligence. The external environment, and indicators of technological development.

Shaukat & Zafarullah (2010) seek to investigate the impact of information technology on an organizational performance about changes in organizational income and employee numbers versus IT expenditures incurred by organizations in Pakistan's manufacturing and banking sectors between 1994 and 2005. In-depth interviews and field surveys were conducted with 48 firms, 24 of which were from the industrial sector (12 local and 12 international) and 24 from the banking sector (12 local and 12 foreign). Various statistical/financial approaches were used to test the data. According to the findings of the study, information technology has a beneficial influence on the organizational performance of all firms. The banking industry outpaced the manufacturing industry. National banks take the lead in the financial industry, whereas international industrial corporations take the lead.

The objective of Lee et al. (2010) is to explore the link between information technology (IT), organizational contingencies, business process re-engineering, and organizational performance in Taiwanese manufacturing. The 800 Taiwanese manufacturing businesses assessed in this study were listed on the Taiwan Stock Exchange in 2005. Results show a substantial positive link between organizational performance and performance using canonical correlation tests and a multiple regression method. Pathway Factors

in Information Technology Integration, information sharing, supply chain integration, decentralization, coordination, and company expansion are all examples of business expansion. The findings indicate a favorable relationship between IT and organizational emergencies. Information technology, business processes, organizational emergencies, and business processes

A study by Ravarini (2010) aimed to test the effect of information technology capabilities on the relationship between expanding information technology and the performance of business organizations in the long run. The study also analyzed several previous studies in this regard. According to this study, the study sample was (77) small and medium-sized companies in The field of clothing and industrial equipment industry in southern Italy, and the results of this study came as follows: There is a relationship between information technology capabilities, and efficiency is defined as a sustainable competitive advantage. This study recommended researching to study the effect of the relationship between information technology capabilities in small and medium-sized companies in various studies. The researcher has benefited from this study: Of the necessity of subsequent studies to study the impact of information technology to increase the extent of its use, and he also indicated to research in the field of information technology capabilities in the government sector, in addition to that he suggested studying the impact of information technology capabilities as an element to obtain a sustainable competitive advantage.

The goal of Battor & Battor (2010) is to explore the role of innovation in mediating the relationship between CRM and performance. The authors investigate the direct influence of customer relationship management and innovation on corporate success. Furthermore, they investigate the function of innovation as a mediating mechanism to explain the influence of CRM on performance. To test the connections between these groupings, the authors employ structural equation modeling. The findings lend credence to the direct influence of customer relationship management and performance innovation. The findings also show that customer relationship management has a substantial indirect influence on the company's success through innovation.

Chailom & Mumi (2010) want to investigate the effects of logistics innovation on the performance of Thai food businesses. In addition, research into the mediating effect of competitive advantage is underway. According to this document, logistics innovation was preceded by IT capacity, network efficiency, and organizational learning. Furthermore, the competitive environment is one of the intermediary factors in research. Thailand's food industries are a source of data collecting. Above all, both direct and indirect effects are significant. According to the findings of this study, the beneficial benefits of logistics innovation on the company's performance on competitive advantage. Furthermore, in the food sector, IT capacity, network efficiency, and organizational learning all have a beneficial impact on the company's logistical innovation. The competitive environment has statistically significant impacts on relationships for moderate influence.

Ringim et al. (2011) want to investigate the elements or dimensions of business process reengineering that may impact the performance of the bank. It also investigates the extent to which Business Process re-engineering (BPR) is being used in Nigerian financial institutions. You have been put through beta testing to achieve these objectives. A panel of specialists from academia and practice reviewed the tools' content, validity, and dependability. SPSS software was used to analyze data obtained from commercial bank divisions. The results demonstrate that the BPR dimensions are trustworthy and valid. Furthermore, corporate restructuring is used in a variety of financial procedures.

Lu & Ramamurthy (2011) aimed to understand how the capabilities of information technology contributed to the intelligence of the organization, and the variables were reviewed through its dimensions as follows for the capabilities of information technology: (the capacity of the information technology infrastructure and the expansion capacity of business information technology and the proactive ability of information technology), and the intelligence of the organization in: (agility To benefit from the market, and to be lean for operational adjustment). The sample of the study included company managers and information systems managers in (843) Northwest Company, USA. Two questionnaires were sent to each company, the first: to the company’s director and the second: to the information systems manager. The results of the study indicated that there is a strong impact of information technology capabilities on the intelligence of the organization, taking into account that it is not necessary to link this impact to spending as spending on

information technology does not affect the increase in the intelligence of the organization, but spending on improving capabilities leads to the intelligence of the organization. The results of the study revealed important and incomplete applications for subsequent research and administrative uses. The study recommended the need for subsequent research to test the relationship between information technology capabilities in creating a smart organization. The researcher reported from this study: The necessity for subsequent research to test the relationship between information technology capabilities and intelligence, and through this study, the researcher encourages the existence of subsequent research to study information technology management and its impact on the rapidly changing business environment, and also the existence of subsequent research to improve understanding of the processes through which Contributes to capacity development.

A study of Rezaei (2012) conducted a study to survey the usage of information technology and its link with organizational intelligence among university workers in the Golestan Governorate. All workers with university degrees from universities in Golestan Governorate (N = 2400) were included in the study sample. According to the Christie-Morgan timetable, 331 personnel were chosen by stratified random selection for the research. The study discovered a statistically significant link between the use of information technology and a proclivity to change, apply knowledge, and share a similar perspective. There is also a statistically significant link between information technology and employee organizational intelligence.

According to Chen (2012), there is rising usage of business intelligence (BI) in the sector to make better management decisions. Empirical studies on business intelligence, on the other hand, are still uncommon in academic study. This article examines business intelligence from the standpoint of organizational agility. Organizational resilience is the capacity to detect and respond rapidly to market opportunities and challenges, and business intelligence may help in this crucial function. they assume that the use of business intelligence and IT infrastructure resilience are essential sources of organizational agility based on systems theory, the dynamic capabilities framework, and literature on competitive advantage, organizational agility, business intelligence, and IT infrastructure resilience. They created a model to investigate the impacts of resilience in business intelligence and IT infrastructure on organizational resilience. This model also investigates how organizational flexibility affects an organization's competitive advantage by mediating the impacts of information intelligence and the flexibility of its information technology infrastructure. Data from surveys were gathered and used to assess the model. The findings support the hypothesis that business intelligence and IT infrastructure resilience are important sources of organizational agility and that organizational resilience mediates the effects of IT infrastructure resilience and business intelligence on an organization's competitive advantage. This study is revolutionary. Research that empirically explores the significance of business intelligence in a corporate environment. It also demonstrates that information technology and systems have strategic value for businesses from the standpoint of organizational agility since they are key sources of organizational capacity and competitive advantages.

Sigalas, C. (2015) aimed in his paper to empirically investigate managers' awareness regarding the concept of competitive advantage, which is the most widely accepted concept in the field of strategic management. n email survey application was used to assess managers' understanding of the notion of competitive advantage. The findings of quantitative and qualitative data analyses provide empirical evidence that senior executives who are heavily involved in their companies' strategic management processes appear to conflate the concept of competitive advantage with the concept of sources of competitive advantage, particularly those related to theory. Based on available resources, The findings support the notion that top executives are unfamiliar with the idea of competitive advantage. Simultaneously, future scholars are urged to continue investigating the aforementioned idea. In addition to giving a conceptually coherent definition of competitive advantage from the literature, the findings can enhance the knowledge of practicing managers on the conceptual nature as well as the fundamental expressions of competitive advantage. Because there has been little research done to date to empirically explore managers' knowledge of competitive advantage, this study addresses an essential gap in the empirical literature of strategic management.

CHE et al. (2015) sought to study the influence of organizational intelligence on institutions' ability to obtain a competitive advantage in Sina Bank branches in Khuzestan Province. This survey's statistical community consists of 220 Sina directors, deputy directors, and senior members, who were polled utilizing tables, Morgan Krejci, and a simple random sample of 140 workers. The

instruments include the Organizational Intelligence Assessment Questionnaire (Karl Albrecht) and the Competitive Advantage Questionnaire (Dr. Muhammad Mujimi). The hypothesis test findings demonstrate that the organization is at an appropriate level and that organizational intelligence has a positive and intentional influence on competitive acquisition advantage.

The study of Neirotti & Raguseo (2017) evaluates the value of capabilities developed through the use of information technology (IT) in small and medium-sized enterprises (SMEs) by examining whether these capabilities are one of the determining factors for differences in performance within an industry. Their study contributes significantly to understanding the utility of information technology in two ways. First, the research demonstrates that externally directed IT-based capabilities have a higher influence on teams within an industry in terms of revenue growth and profitability than internally directed IT-based skills. This discovery is mostly compatible with two facts: 1) the increased relevance of market and supply chain ties for firms with restricted reach in comparison to improving efficiency. 2) The increased social and organizational complexity brought by the use of information technology in a company's external interactions. Second, their study shows that revenue from IT-based skills-oriented externally is more likely to deliver performance advantages to SMEs in low-income, low-dynamic situations. As a result, our data suggest that, under these conditions, IT is more likely to restrict than aid SMEs' capacity to adapt to market changes and new possibilities.

According to Chae et al. (2018), most research, including Bharadwaj (2000) and Santhanam and Hartono (2003), published in the MIS Quarterly, demonstrate the positive relationship between IT competency and business success. This investigation will determine whether or not the relationship is still statistically significant. It has already been more than a decade since the initial research was released, during which time there have been numerous significant advancements in the IT sector. Unlike the 1990s, when proprietary information systems predominated, the 2000s were marked by more standardized and homogenous information systems, as well as the fast use of enterprise resource planning (ERP) and online technologies. Thus, using data from the first decade of the twenty-first century, the study aimed to re-examine the connection between IT capabilities and corporate performance. The current study's findings revealed no significant relationship between IT capability and corporate performance. In contrast to prior research, the leading IT businesses in this study did not outperform the control companies in terms of financial success. It explores many probable explanations for the shift in outcomes and presents a detailed comparison of business performance between the two groups - the IT leader and the observer - from 1991 to 2007.

Hamad (2019) has proven that a skilled staff is essential for survival in a difficult climate with quickly changing working circumstances. Using a quantitative method, this article investigates the impact of improving people management on organizational intelligence in Jordanian food firms. The measuring scale's reliability and validity are both assessed. The comment demonstrates the importance of talent management as a foundation for

organizational intelligence. The results emphasize the necessity of having talented people and urge practitioners and executives to create and sustain their talent pool through a strategic human resource management system to effectively utilize intellectual capital and direct it toward organizational priorities.

Hadj et al. (2019) investigate whether responsible innovation may be a significant route via which a corporate social responsibility (CSR) strategy influences a company's competitive advantage. Try to examine the function of business size and industry sector as conditional elements in the mediation of responsible innovation. In the case of Saudi firms, there is a link between corporate social responsibility and competitive advantage. According to the findings of structural equation modeling (SEM), responsible innovation is a crucial component of a sustainable business model since it influences the effectiveness of a CSR strategy in increasing firms' competitive advantage. In this approach, the mediation of responsible innovation varies depending on the size of the firm and the sector of operation, as well as the decision between a proactive and a reactive CSR strategy. In this context, we also find that the indirect effects of CSR strategy on competitive advantage change by company size in the case of interactive CSR, but not by operating sector in the case of strategic CSR. This research is unique in that it investigates whether a company's competitive advantage in developing nations is more dependent on an interactive CSR strategy or a CSR strategy. It also suggests doing an empirical study of the conditional variables of responsible innovation and their influence on the link between CSR strategy and competitive advantage.

Chu et al (2019) investigated how to establish digital companies and improve institutional innovation skills in the context of national policies (such as Industrial 4.0 and made in China 2025), which has become a key challenge for Chinese manufacturing enterprises. However, a corpus of relevant empirical research on the unique path of information technology (IT) skills to institutional innovation is still lacking in the literature. You haven't even thought about investigating the possibilities of IT, digital transformation, and then innovative performance for industrial businesses. This study surveyed 138 Chinese manufacturers and used both the qualitative comparative analysis of fuzzy ensemble (fsQCA) and structural equation modeling (SEM) to investigate the particular connections of couplings. And statistical conditions and connections by investigating the links between information technology capabilities, digital transformation, and innovation performance. The findings revealed that information technology capabilities have a positive impact on the performance of the innovation process and digital transformation, as well as digital transformation having a positive impact on both the performance of the innovation process and the performance of product innovation. Specifically, digital transformation assumes the new function of IT capabilities for micro-broking and innovation process performance, and it serves as a full mediator between IT capabilities and product innovation. Performance Fuzzy qualitative comparison analysis provides causal prescription sets connected to innovation performance [fsQCA]. This study creates methods to shape both process innovation performance and product innovation performance using SEM and [fsQCA] analyses, and it gives recommendations for both IT management and innovation for manufacturing businesses in China.

Tu et al. (2020) shown that certain designers work more successfully than others in culturally diverse professional contexts. The skill and intelligence that underpins their success are crucial to long-term career advancement in the increasingly competitive and international design business. Cultural Intelligence or (CQ for short) is in great demand in cross-cultural design contexts, and it may be learned and developed through design education. As a result, we are developing and assessing the [CQ] model in design education to better prepare students at design schools for long-term professional growth. We begin the research by finding demographic variations in [CQ] among design students, and then we elucidate the link between [CQ] and competitive advantage. The findings of t-test and ANOVA studies revealed that education level had a significant influence on two [CQ] dimensions (perception and motivation [CQs]), but gender, age, and design domain had no significant effects on any [CQ] dimensions. Furthermore, stepwise regression analysis revealed that the three [CQ] aspects (motivational, metacognitive, and behavioral) had a substantial impact on competitive advantage. Based on these findings, theoretical and practical consequences, as well as future research directions, are explored in further depth.

According to Niemand et al. (2020), technology is quickly transforming the banking business. Banks are confronted with a movement away from conventional kinds of personal services and toward digital financial services. These digital technologies are increasingly becoming the standard in the banking industry, as they challenge established business models and create possibilities for banks to capitalize on them. Based on the idea of

Entrepreneurship Orientation (EO), this research of banks in Germany, Switzerland, and Liechtenstein attempts to produce insights that explain how banks may employ EO-related tactics and strategies to excel in the age of digitalization. According to the findings of a survey of 102 banks: 1,) Banks with high levels of EO have greater levels of performance, and 2) the Employers' Organization oversees the link between banks' strategic vision on digitization and performance. These findings suggest that the absolute degree of bank digitization does not affect profitability. Instead, at this period of technological rationale change, banks must build a clear vision of digitization that is defined by innovation, being ahead of the competition, and being prepared to take risks.

Ismail & Al-Assa'ad (2020) conducted a study to assess the influence of organizational intelligence on organizational agility among workers at the senior and middle management levels in private Syrian banks in Damascus, with a total sample size of 160 employees. The descriptive-analytical approach was used to attain the research's aim. Secondary data were gathered from prior research and appropriate references, while the questionnaire served as the primary data gathering instrument (Albrecht, 2002). The study utilized a scale to determine the aspects of organizational intelligence, and the researcher used a scale to assess organizational flexibility [Park, 2011]. Following the testing of the research hypothesis, the main findings of the study were as follows: There is a significant effect of one dimension of organizational intelligence [strategic vision] on sensing speed, and there is a significant effect of the dimensions of organizational intelligence on sensing speed [desire to].

Change - strategic vision - alignment and congruence) on decision-making speed, organizational intelligence aspects [desire for change /strategic vision/ alignment and congruence] have a major influence on decision-making speed.

1.6.1 What distinguishes the current study from previous studies

The most important thing that distinguishes this study from previous studies can be summarized as follows:

1. It is from the first studies of its kind that links competitive advantage, IT capabilities, and organizational intelligence, specifically in e-commerce companies operating in Jordan, according to the researcher's background.

2. This study deals with the impact of IT capabilities and organizational intelligence on competitive advantage in an organization whose work environment is dynamic, as the environment variables are unpredictable and unpredictable, representing an ideal organization for the application of such a study.

3. None of the previous studies adequately linked competitive advantage. IT capabilities, and organizational intelligence especially at E-commerce companies despite its scientific and practical importance.

CHAPTER 2

CONCEPTUAL FRAMEWORK

2. Theoretical Linkages and Hypothesis Development

This study clarified the conceptual model, which represents the findings of the literature review and the study's aims. According to the concept, organizational intelligence acts as a bridge between competitive advantage and IT capabilities.

2.1 The impact of IT capabilities on organizational intelligence

There is a significant relationship between IT skills and the organization's agility in increasing abilities, which leads to a competitive advantage [Lu and Ramamurthy (2011)]. According to the findings of Azma. et al. [2012). A good connection in IT is an application to adopt, apply knowledge and share a shared perspective. IT capability highlights the excellence of business-based IT businesses in collaboration and synergy. Collaboration and synergy among IT and business management result in more effective IT work in daily decision making, extra strategic applications, and higher stakeholder engagement, resulting in better execution. (Massachusetts & No, 2002). Intellectual formation is necessary for achieving a common destiny, which is intended to

maintain the same sense of belonging, desire, enthusiasm, and hope that the status quo in organizations will contribute to changing this condition, which implies that information technology contributes to expansion and expansion. By enhancing stakeholder participation and developing a uniform decision-making process [Bhatt and Grover (2005)].

Technological innovation has reduced the amount of time necessary to connect with even the most remote areas of the world; nevertheless, advances in communication and computers are of little use unless supported by commensurate advances in command, control, and intelligence systems (Massachusetts & No, 2002; Daňa et al., 2020).

Organizational intelligence encompasses both overall company management and policy intelligence. It represents mutual reinforcement methods for receiving implicit and explicit information and promotes organizational general interaction to accomplish particular goals at specified moments (Shahabi, et. al., 2012). The organization's capacity to organize all of its available mental energies and focus on the mind's ability to do this job (Albrecht, 2002).

Information technology and organizational intelligence aspects are critical to preparing the organization for the construction of contemporary organizations, which the researcher refers to as possessing the memory of their managers [CHE et. al. (2015)]. There is an influence of information technology on workers in smart firms, where workers are viewed as the roots of smart organizations and IT serves as a means to attain organizational intelligence (Rezaei, 2012).

IT Capabilities are an organization's capacity to deploy a collection of common platforms (physical components, human skills, networks, databases, and software) to determine how well the company manages this set of common platforms (Zhang, 2005). The study of Lu, (2006) aimed to realize the depth of the correlation between the ability of information technology and the performance of companies to achieve organizational agility as a mechanism for mediating the impact of the organizational performance of information technology.

The results of Lu & Ramamurthy, (2011) study indicated that there is a robust Link between IT capabilities and the organization's agility in terms of spending on improving capabilities leading to the intelligence of the organization. The resulting research by Rezaei (2012) shows the strong relationship in the application of information technology with the tendency to modify, apply knowledge and a common perspective. Furthermore, there is a link between information technology and employee organizational intelligence. IT Infrastructure Capability It comprises substantial IT assets (software, hardware, and networks) that are developed through systems and offer a technical foundation for product execution based on information technology and process invention [Lu & Ramamurthy, 2011].

Hilton & Platt, (2013) also demonstrated that IT capabilities are a company's capacity to acquire nationality or to publish, gather, and recycle IT resources in support and promotion of business plans and work practices. In today's

environment, when information technology is susceptible to numerous imitations and reproductions by competitors and other companies, information technology talents are of considerable importance (Chen, 2012).

Ability to cover IT business. The ability of the company's organization to take the idea and useful resources to provide information technology and advance business purposes and this ability reflects the extent to which the company has a clear vision for the development of the IT strategy and the integration of information technology and business. Strategic planning enables company organizations to recognize the value of the investment in information technology (Lu & Ramamurthy, 2011).

The capability of information technology highlights the supremacy of business-based IT businesses in collaboration and synergy. The collaboration and synergy of information technology and business management, resulting in the efficacy of IT work in joint decision making, more strategic applications, and more stakeholder engagement, resulting in better execution [Weill et. al., (2002)]. In the long-term strategic vision, Ravarini (2010) highlighted the influence of IT capabilities on the link between IT expansion and business success. Although the work has begun to reach the company's IT competence for competition through the operation of organizational intelligence, the ability of information technology is important for the firm to generate business value and retain competitive advantage by Lu & Ramamurthy (2011).

It Takes a Proactive Approach The business's capacity to operate in the field of research and the search for information technology solutions and new inventions to find new methods to minimize the use of information technology, as well as its fast effect on the usage of information technology (Lu & Ramamurthy, 2011).

Each strategic organization needs a theory, idea, or principle that the organization's leaders may use to answer issues such as "who we are?," "why we exist?," "what is the original value accepted by presidents within?," and "why the world is acceptable, valuing things, and rewarding." (Albrecht, 2002). Being unique in the world in strategy implementation leadership necessitates the ability to shape and develop your vision, which necessitates developing a strategic IT photo that seeks to embrace new products to contribute to the development and boosting of the information technology infrastructure (Reddy, 2006).

Most people's association with the organization, which includes parties with interests such as: (suppliers, business partners, and in some cases extend to the family of some individual and joint members who make success working in a synergy language to achieve the perception), stems from everybody's awareness that they are in one complex. They get their power from their collective intuition and collaboration (Albrecht, 2002).

The origins of the idea of common destiny can be traced back to the period between World Wars I and II, when the goal was to realize a common destiny

to remove cultural disparities among persons in society in general in all areas, it was then useful in administrations to increase the level of poverty in our current time (Chen, 2012). Intellectual formation is important in establishing a shared destiny, that is described as the same sense of belonging, desire, excitement, and hope that the status quo in administrations will donate to altering this condition, implying that information technology leads to development, and expansion through greater involvement of stakeholders and a joint choice to a better instrument (Levinthal & Franconeri, 2011).

Change can be viewed as a challenge, an opportunity for new, and current skills and behaviors, or a catalyst for radical change. People in these contexts recognize the need for re-invention as a business model, as well as the necessity to replicate difficulties and inspire people to cope with them. The demands of the organization are connected with several sorts of changes in the company's strategic vision (Albrecht, 2002). The desire for change denotes an organization's potential to fundamentally change the internal conditions in response to the accelerating external environmental advancements by changing the organizational culture through enhancing processes that engage minds and patience to overcome difficulty and try new experiences (Xiaobo, 2006). The transition provides a fresh and exciting chance for experts to solve something new in society, and these environments view the need to rethink a business model as a new and fascinating challenge [Nasabi and Safarpour, 2009].

According to emotional psychologists, the heart is the effort left to measure one's energy as memberships of the institute to give across and above the levels of interdependence and relationships to create that estimate). As a result, establishing the relationship between their success and the success of the company, which represents their desire to succeed (Albrecht, 2002). Collective Commitment (Heart): Denotes the strong domestic desire of individuals to work together to do their best at work because they assume in the strategic direction of the organization and a desire to maintain membership in the business where they believe in sustainability by doing more of what they do. They must do so [Yaghoubi, et. al., (2011)].

Alignment and congruence are two terms that are used interchangeably. Without establishing ground rules for each group's or individuals' actions, they will begin to conflict and overlap. Designers and leaders seek to eliminate structural conflicts of inherent worth and to facilitate the adaptation and channeling of one's energy to common goals (Albrecht, 2002). Harmonization and conformance are described as the control of variations and disparities between various measurements, processes, techniques, standards, and systems to make them compatible and prevent duplication of labor efforts of Balouei and Ghasemian (2014).

Deployment of knowledge is a term used to describe the process of deploying knowledge Organizational intelligence should guarantee the free flow of knowledge across cultures, striking a balance between a discussion about the sensitivity of new information and new inventions, and dealing with problems

that demand attention and attention with an open mind (Albrecht, 2002). At the end of the birth of the universal mind or the universal mind whose initial evolutionary stages occur with the expansion of the global economy that will meet the human knowledge system for the birth of the global mind (Lefter, et. al., 2008). It implies that knowledge distribution contributes to adopting the concept and exploitation of resources to support information technology and promote corporate objectives, as well as gaining knowledge to exploit current information technology resources to generate new jobs (Rezaei, 2012).

The belief of the staff to do more work (performance pressure): is the sense of what should be accomplished and faithfully believe in its purposes. Leaders promote and support a feeling of staff belief in additional work, but this has a larger impact when all members of the company embrace and perceive it as a translation and reaction to their set of expectations and fundamental processes of shared success (Albrecht, 2002). Employees' confidence in additional effort to feel what they need to accomplish and to truly believe in their aims leads to the tight contact and collaboration between information technology, business, and trust (Marjani & Soheilipour, 2012).

Technological progress has reduced the amount of time required to communicate with even the most remote parts of the globe, but this technological progress – advancements in communication and computers – is of limited value unless accompanied by corresponding progress in command, control, and intelligence techniques (Weill, et. al., 2002).

H_1: IT capabilities have a beneficial impact on organizational intelligence.

2.2 The impact of organizational intelligence on competitive advantage

Today's we can confidently state that the adoption of organizational intelligence solutions may boost an organization's competitiveness and distinguish it from competitors (Diab, 2014). This solution enables other businesses to make use of available information from the leading competitive advantages (Dishman & Pearson, 2003).

This method allows for a better knowledge of consumer expectations and wants, as well as relationship management with them. This approach allows the company to track good and negative developments (Nasabi & Safarpour, 2009). Leading firms never discuss organizational resource planning or customer relationship management, but they do use an enterprise approach to business intelligence (Azma et al., 2008). The industry and organizations are interested in business intelligence for two reasons: the first is the information era, and the second is economic concerns. One who possesses information has power in the information age.

Any business or corporation that possesses this capacity will be privileged and distinguished in its field when compared to its competitors (Roudriguez et al., 2002). The foundation of these organizations is getting the correct information at the right moment. Another rationale for employing organizational intelligence is in electronic commerce (Roudriguez et al., 2002). Where the product (or service) bundling approach mitigates the danger of product replacements and

competitiveness among current companies (Hamad, 2019). Another approach is innovation or the development of specialized items, which also counteracts the danger of product replacements, new entries into the market, and rivalry among existing businesses (De Pelsmacker et al., 2005). Companies may collect information, identify target consumers, and better offer products or services to fulfill consumers' requirements by leveraging the Internet's direct connection to consumers (Nasabi & Safarpour, 2009). Companies can also get information about new goods that are sought by certain sectors of the market. Companies may charge greater pricing by developing items that satisfy the needs of consumers in these niche markets. Customer-centric strategy is another approach connected with specialized items or innovation (Azma et al., 2008). In contrast to a product-centric approach that pushes items to customers, a customer-centric strategy gathers information from customers to enhance and modify products (Azma et al., 2008).

Managers in organizations that use organizational intelligence may extract and recognize organizational expenses and take actions to minimize or eliminate them. Prepare for future developments and have a solution for their situation (Azma et al., 2008). Companies must grow their sales while also maintaining their present consumers to improve their revenues (De Pelsmacker et al., 2005). Finally, there is other information management for making decisions in organizations that Depletion is required to decide, in the current situation in Respond to the needs of corporate executives and organizations plan the deployment of organizational intelligence in the form of companies and organizations, and the use of a powerful tool is the solution for them. The

requirement to investigate the idea of organizational intelligence, which is a completely new issue in Iran, is a response to the present management environment and expectations (Porter, 2011).

Organizations that utilize organizational intelligence enhance the efficacy of their usage of information in line with their aims and information from operating states for managers to be produced by layering executives (Yaghoubi et al., 2011). Today, e-commerce firms are heavily influenced by new technology and methodologies. Iranian e-commerce companies carry out operations that heavily rely on new technology, ideas, and information. Recently, their commerce area has been significantly expanded to remain competitive (Hamad, 2019). The growing use of this technology is viewed as a positive move for activities. This application using an organizational intelligence approach is a potent factor that plays a critical role in the development and implementation of organizational initiatives. A competitive advantage may be characterized as a powerful element that if has particular expertise in leading talents inside the organization (Porter, 2011).

A competitive advantage is a sort of strength that is exclusive to a company or a subset of the competitors. If this feature is implemented in such a way that the market becomes more competitive and viable and is not easily imitated by other competitors, there will be a shift to a stable competitive advantage, and if organizational intelligence is capable of resolving origination issues, it can be a powerful factor or privilege that shifts to competitive advantage and increases an organization's competitiveness (Porter, 2011; ISO, 2005).

Reviewing organizational intelligence is a new need in e-commerce firms to keep up with the quick changes in the competition field (Dishman & Pearson, 2003). However, no study has been done to evaluate the influence of organizational intelligence acquisition on competitive advantage; hence, the need for such research is fairly plain and obvious (De Pelsmacker et al., 2005).

Organizational intelligence is an ideal method for the effective use of information collected and processed through information technology, which in turn can adapt to the environment of external relations in proportion to its resourcefulness and vision, which is a manifestation of organizational intelligence (Albrecht, 2002).

A competitive advantage is a property that a firm might have over its competitors. It can be obtained by providing customers with better and greater value, promoting items or services at cheaper costs or of higher quality that are of interest to consumers (Diab, 2014). Additionally, target audiences identify these distinct products or services, which is why brand loyalty exists and why buyers choose one product or service over another (Porter, 2011; ISO, 2005).

Collective commitment is the strong internal desire of individuals to act on a collective level, to make every effort in working out of their belief in the organization's aims and values, to retain membership in the firm a belief in

sustainability, and to do more than what they have to do (Yaghoubi et al., 2011; Hamad, 2019).

The transition offers a new and exciting opportunity for experts to solve something new in society, and these environments see the need to rethink the business model as a new and exciting challenge [Nasabi and Safarpour, (2009)]. Besides, In response to environmental changes, Che et, al. [2015)] discovered a link between organizational intelligence and competitive acquisition advantage. Many studies on the relationship between competitive advantage and organizational intelligence have been done in an attempt to improve corporate performance. (Che et, al. [2015)]; Azma et al., 2008).

H2a: Organisational intelligence positively affects exploring marketing opportunities.

H2b: Organisational intelligence positively affects neutralizing threats.

2.3 The impact of IT capabilities on competitive advantages

Organizations are suffering from threats in the rapidly changing of their environment, hence the companies need to absorb these changes in a volatile environment and trying to control it (Tarafdar & Gordon, 2005). Only the control of the external environment responds positively to sustainability and avoids facing the risks we face in the external environment by improving the internal resources of enterprises periodically and distinctly (Ochara, et. al., 2018). International e-commerce companies are becoming more valuable and sophisticated because they affect the success of companies as a whole.

Companies must respond more swiftly to knowledge creation in a non-operational environment, which has resulted in a reliance on IT methods based on environmental circumstances by Lu and Ramamurthy [2011]; Wade and Hulland, [2004]). There has long been discussion about the influence of information technology on company performance (Lu, Y., 2006; Galliers, 2006). The general opinion is that information technology may lead to a competitive advantage for some businesses, and that value creation can materialize in a variety of ways, depending on the firm's organizational and environmental circumstances (Sambamurthy, et. al., 2003). A study by Reddy, (2006), illustrates the correlation among IT Properties and Competitive Advantage and Asset Specificity to get Strategic Elasticity to advance aptitude Company to increase differentiation strategy.

The researcher's goal was to find a way of visualizing the company that would reveal the foundations of competitive advantage and its sustainability; Technological change is one of the primary drivers of competition and plays an important role in the structural change of the industry as well as the creation of new industries (Neirotti & Raguseo, 2017).

Many of today's top companies arose as a result of technological advances that they were able to capitalize on. IT changes are the most likely to alter the laws of competition (Porter, 2011). The concept of information technology capabilities is to create strong information technology by making the process of imitation and reproduction more difficult and complex through three dimensions, allowing it to create powerful capabilities by strengthening the

information technology infrastructure, and the capacity of management to use information technology resources to achieve goal promotion, and the firm is now working on developing innovations to generate new possibilities (Lu & Ramamurthy, 2011).

The purchase, sale, or transfer of data of products and services using IT resources is referred to as electronic commerce. It has grown in popularity over the years since services may be delivered from the comfort of one's own home or office (Islam & Eva, 2019).

Consumers may quickly gather information about items or services on the Internet without having to visit businesses to check things and compare pricing (Diab, 2014). Researching product offers in the offline sector may be highly costly and time-consuming. As a result, customers rely on product suppliers and merchants to assist them in their search, while suppliers and retailers profit from the situation by charging higher costs (Yaghoubi et al., 2011). Consumers end up spending more and sometimes not receiving the goods they desired. This is not the case with e-commerce. A thorough search of product offers is accessible on the Internet at almost no cost. Companies are driven to decrease costs because consumers can readily compare prices and locate comparable replacements (Porter, 2011). Companies cannot gain a competitive edge merely by taking advantage of customers' search expenses, as they did in the physical market (Roudriguez et al., 2002).

IT capabilities have the role of any organization of continuity and success in its business to be Leading in its field especially in modern organizations, where the impact of technological capabilities used by the employees of the organization should be solid, helping them to faced competitors and external challenges of Imitation, piracy and other things that may make weaknesses and threats of the company to get it out of the market (Rehman, et. al., 2018). All businesses must have information technology skills that allow them to forecast unexpected and unforeseen external situations (Neirotti & Raguseo, 2017). While the work has begun to reach the firm's IT level for competitiveness, information technology capabilities are critical for the organization to generate commercial value and keep a competitive edge (Bhatt & Grover, 2005). In today's world, information technology is extremely essential, as it is subjected to numerous replications and imitations by rivals and other businesses (Hintsch, et. al., 2017).

Sambamurthy, et. al, (2003) researchers have advocated for an essential to understand the procedures and processes over which IT capabilities enable businesses to innovate and gain a competitive edge. Understanding how this occurs would have significant consequences for correctly building and exploiting key IT capabilities (Xiaobo, et. al., 2006). As results of Wong and Yung ([2005] and Srivastava, et. al., [2013] explained that one of the most important factors affecting the company's competitive advantage in the era of modernity and technological progress is the establishment and expansion of the infrastructure behind the information technology that the organization is

concerned with, to open additional doors for its suppliers and customers to gain more knowledge and communication.

IT capacity is essential for a company to realize the commercial value and maintain a competitive edge. Even though work has begun to establish a relationship between firm-wide IT competence and competitive advantage (Bharadwaj 2000; Bhatt & Grover 2005). Firms must be nimble and capable of dealing with extraordinary changes, surviving unexpected challenges, and capitalizing on emerging business opportunities in today's turbulent business settings (Prahalad, 2009). According to Fichman, (2004), the purpose of IT is to drive and lead business strategy formation, and that IT is a tool to accomplish growth as well as generate and preserve competitive advantage. In other words, the presence of IT skills and IT leadership inside the sector is a prerequisite for industrial leadership (Onyango, 2017).

These distinct goods or services are recognized by target markets (i.e., differentiation and cost-leadership approach) (ISO, 2005). This is the cause for brand loyalty, or why people choose a specific product or service (Porter, 2011). It provides a company's capacity to attract consumers, develop prestige for the business or its goods, enhance perceived value by customers, and achieve customer satisfaction, as well as the ability to deliver a variety of value to the customer (Acquaah & Yasai-Ardekani, 2008). In addition, a company's capacity to outperform competitors in the same industry. This may be accomplished through cheaper prices (lower costs), improved quality, greater

dependability, shorter delivery times, and greater flexibility (Mentzer, et. al, 2000).

The study of CHE and his colleagues, (2015) proven there is an association among dimensions of organizational intelligence and competitive acquisition advantage by the response on the environmental changes. A cost leadership strategy provided more community loyalty with orderly of our products and process of the best competitive prices, hence that companies may have lower prices to be appropriate or standoff their competitor and keep up with making revenues, since an organizational strategy generate company benefit using great new products special quality and technology, distinguished brand and better service, thus allowing the company to set more fee prices (Li and Li, 2008).

Several studies have found a favorable relationship between low-cost and organizational methods and corporate (Acquaah and Yasai, 2008; Li & Li, 2008). The previously described marketing perspective may only have a limited capacity to capture the offered unique corporate advantage.

Several studies different positively affect the low cost and organizational strategies and business performance (Acquaah and Yasai, 2008; Li & Li, 2008). The marketing perspective, which was mentioned previously point may have only a tied capacity to catch the provided of the exceptional company benefit. The theories sought to offer empirical evidence on this order by also treating a customer as a satisfied variable in the competitive strategy, the

direction of the customer is a company's capability to affect please customers and enhance customer loyalty (Maroofi, 2013).

IT Capabilities have been established and widely embraced by many businesses through the collection, processing, storage, and retrieval of information (Agarwal & Sambamurthy, 2006). As a result, IT has improved the company's ability to capitalize on opportunities, avoid threats, and identify predicted strengths and weaknesses, allowing it to sense what is happening in the external environment by processing incoming data to improve development in an external environment (Lu & Ramamurthy, 2011).

In a market context, competitive companies use developing digital technologies for example the Internet and cloud computing technology to preserve their competitive edge [Niemand et al. [2020]). IT capabilities may assist businesses in integrating external and internal resources to offer a digital resource base, accurately managing and coordinating the innovation process, and assuring cross-organizational innovation initiatives [Neirotti and Raguseo, [2017)]. A work by Galliers et. al., (2020) conducted research that demonstrated the link between IT competence and competitive advantage, as well as asset specificity to get strategic flexibility to enhance corporate ability to increase neutralizing threats tactics.

Technology changes the laws of competition, and many of today's important businesses arose as a result of technological developments that they were able to exploit (Porter, M. E., & Kramer, 1985). Companies are already

innovating to generate new opportunities AB. All businesses must have the ability to foresee unexpected and unpredictable external situations (Lu & Ramamurthy, 2011).

All businesses must have the ability to foresee unexpected and unpredictable external situations (Neirotti & Raguseo, 2017). As a result, IT capabilities are critical for businesses to generate business value and sustain a competitive edge (Bhatt & Grover, 2005).

Galliers et. al. [2020]) have advocated for an essential to understand the routines and processes by which IT capabilities enable businesses to innovate and generate competitive advantage. But, information technology is a competitive advantage that is being copied by competitors and other businesses [Bhatt and Grover, [2005]). Understanding how this occurs has significant consequences for designing and deploying appropriate IT capabilities [(Galliers et al., (2020). Beside. Wong and Yung, (2005) illustrated the creation and expansion of the infrastructure supporting IT. Concerned by the organization is one of the most significant elements affecting the company's competitive advantage in the age of modernity and technological advancement, to open additional doors for its suppliers and consumers to greater information and communication. At the moment, there is a lot of emphasis on IT capabilities, and IT is being copied and reproduced a lot (Chen & Siau, 2012).

H3a: IT capabilities positively affect exploring marketing opportunities.

H3b: IT capabilities have a beneficial impact on threat neutralization.

2.4 The complementary effect of IT capabilities and organizational intelligence on competitive advantage

The previous theories still lack the association between IT capability and organization intelligence in modern workplace environments such as; Reddy, 2006; Kohli and Grover, 2008; Yaghoubi, et. al., 2011; Rehman, et. al., 2018). Also, the study of Tan, et al. (2008) recommends future research to investigate contradictions among IT and fluctuations in the work environment and the entry of new competitors in a fast and surprising manner through developing smart organization can be facing contradictions and can still sustain in the workplace market. furthermore, the study of Lu & Ramamurthy, (2011) recommends making more studies on the association between IT capabilities and organization intelligence and how can increase the competitive advantage in workplace markets as well.

Che et al., (2015) organizational intelligence have an impact on company capabilities for succeeding in today's business settings. Furthermore, counterparty studies have discovered that IT enhances organizational agility and the ability of a competitive advantage plan to be sustained Neirotti and Raguseo, [2017)]. Workers believe in more work to feel what they necessity to achieve and in their aims, which contributes to the tight contact and collaboration between IT, business, and trust (Ismail & Al-Assa'ad, 2020).

Organizational intelligence is increasingly being used for better decision-making in a variety of sectors. Organizational agility is defined as the capacity to detect and respond to market opportunities and risks that impact competitive performance and IT infrastructure elasticity; as a result, individuals can now

access storage and move data [Chen and Siau, [2012]). It implies that information distribution helps to take the concept and exploit resources to support IT and promote business objectives, as well as obtain knowledge to exploit IT's current resources and generate new employment [Azma et al., [2012)].

IT has influenced organizational transformations and enhanced organizational intelligence and human experience in a variety of ways. Niemand et al. (2020) established the influence of IT skills on the long-term link between IT growth and company success and strategic vision.

As work has begun to access a firm's IT abilities for competitiveness through operational organizational flexibility, IT ability is crucial for a company to produce business benefits and maintain competitive advantage [Lu and Ramamurthy, [2011]). IT enables a firm to get a competitive advantage [Balouei and Ghasemian, [2014)]. Organizations must improve a plan via workers, suppliers, and others to take action by forecasting and dealing with predictable and unanticipated behaviors. Furthermore, enhance IT since it is the most important factor in improving organizational performance (Ismail & Al-Assa'ad, 2020).

Besides the innumerable benefits of an e-commerce structure, there are a certain number of threats that these online businesses need to address to survive. These challenges include verifying an individual's useful identity to confirm a case, whether it is a real customer or a competing bot trying to disrupt

business analytics (Kwilinski, et al., 2019). With the barriers removed in this free market, most companies the number of competitors is increasing day by day. This increased competition often makes it very difficult for companies to operate at a steady rate if they are not careful. The reliance of many companies on search engines and website optimization has led to the problem.

It requires companies to stay up-to-date with search engine policies to stay relevant to consumer searches or risk the chance of error. It also made it necessary for companies to track the strategies and activities of their competitors to learn from their mistakes and achieve better performance (Hamad et al., 2018).

One of the main problems that online sellers have to face is maintaining customer loyalty. Online consumers are known for wanting to take advantage of it. Companies need to be careful about the changes they make or their promotion methods. A simple mistake can cause customers to resort to many alternatives available online. These problems are often considered difficult, and can be fixed and maintained (Tandon et al., 2018).

On the other hand, the arguments presented in the literature of Mohtarzadeh et al. (2018) point out that a significant challenge can arise regarding the implementation of e-commerce within an organization that could be primarily related to its willingness to implement. Also, Lack of staff capacity is an important problem that creates obstacles for organizations concerning e-commerce facilities.

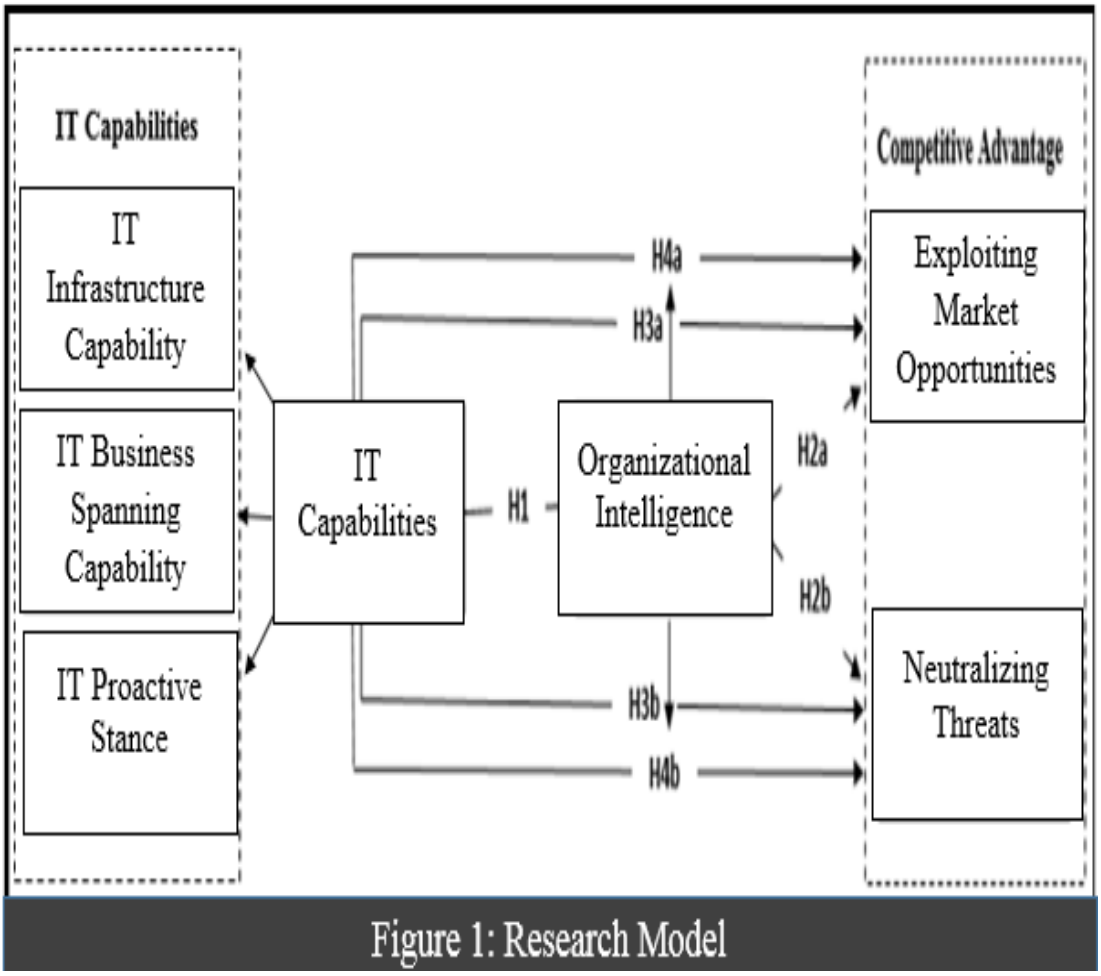
Currently, Organizational intelligence is of great attention as an influencing corporate skill for succeeding in today's business settings. Furthermore, researchers discovered that IT improves organizational agility and competitive advantage strategy to be sustained and life-long (Lee, et. al., 2008). Organizational intelligence is increasingly being used for better decision-making in a variety of sectors. Organizational agility is defined as the capacity to detect and respond to market opportunities and risks that impact competitive performance, as well as IT infrastructure flexibility, which allows employees to access, store, and move information (Chen, 2012). IT has resulted in several methods to transform companies and increase organizational intelligence, as well as personal experience in enterprises. Indeed, determining, estimating, educating, and conceptualizing these difficulties may assist a firm in gaining a competitive edge (Balouei & Ghasemian, 2014).

Organization entrepreneurship has a direction to be affected by IT capabilities and sight as an essential source of competitive advantage for the company that allows exploitation and improve another opportunity to achieve in an active business environment is not obvious and company entrepreneurship by supporting of strategic vision (Rehman, et. al., 2018).

H4a: Organisational intelligence has a mediating role among IT capabilities and exploring marketing opportunities.

H4b: Organizational intelligence has a mediating role among IT capabilities and neutralizing threats.

“Figure 2. 4”: The conceptual model of the theoretical links and hypothesis development in this study, as follow:



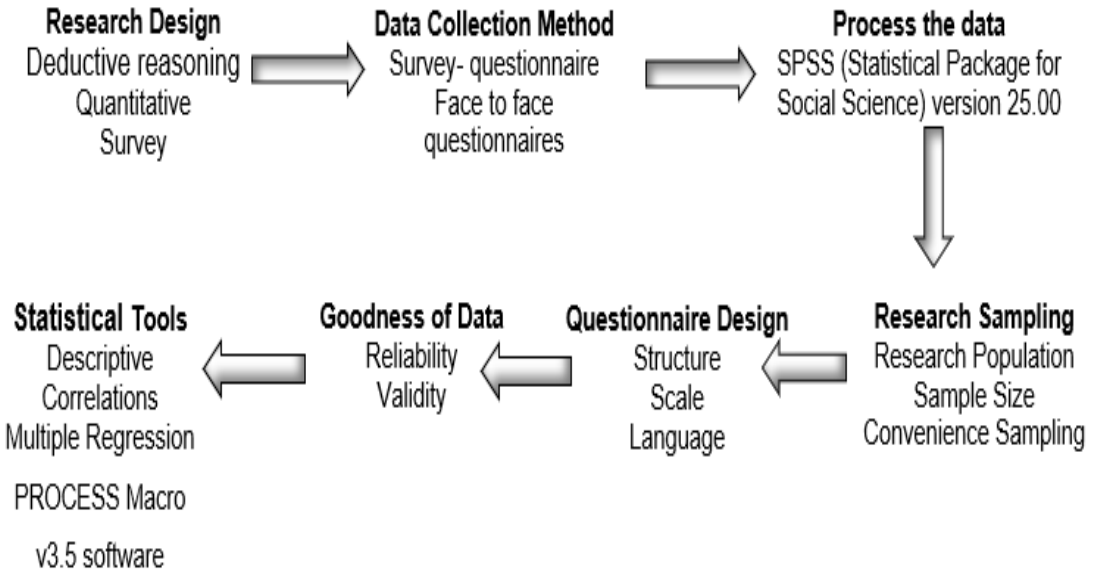
“Figure 2.4”: The conceptual model of the theoretical links and hypothesis development in this study.

CHAPTER 3

METHODOLOGY

3.1 Introduction

This section deals with a detailing of the methods keep track of the researchers, it includes the study population and how to determine the community that was chosen, and it also shows the steps for preparing and developing the study measuring instrument, and the procedures by the study were executed, and the statistical methods utilized in analyze data and designing the results to investigate that the organizational intelligence enhancing the effect among IT capabilities and competitive advantage in e-commerce organizations in Jordan. Which be clarified in figure 3.5:



"Figure 3.5": Research Methodology Framework.

3.2 E-commerce companies

E-commerce organizations are a reciprocal procedure that includes selling or buying products over the Internet, where these companies rely on multiple technologies such as electronic money transfer, supply chain management, online shopping, transaction processing, and data exchange. Where it plays its role in exchanging services from company to company (B2B) or from company to customer (B2C).

Online services in e-commerce companies enable the customer to browse the products or services through the company's website that benefits from them or satisfies the customer's desires, and where the website allows the product or service to be displayed by displaying pictures, specifications and price. Also, e-purchasing services and products may be much cheaper than shops, because they can reduce shop rent and customs exemptions granted by the government.

3.2.1 E-commerce companies in Jordan

This study included 13 companies in Jordan as shown in Table 3. 2 It includes (website, product, number of employees, sample) in four regions in Jordan (Amman, Irbid, Zarqa, and Aqaba) and where neighboring Arab countries allow purchases and deliveries through a DHL company for delivery service and within 30 days. The marketplace of the e-commerce firm in Jordan and the neighboring Arab countries includes a huge number of buyers that exceed millions in numbers in various neighboring Arab countries (MarkaVIP.com, 2021) such as Syria, Saudi Arabia, UAE, Qatar, Egypt, and Lebanon.

E-shopping in Jordan allows buyers to browse goods and services directly through the company's website, where it allows the buyer to browse the site through an application carried on the phone or through the Google search engine, which provides the site with a display of goods and services and the price of each product through the site directly, where the beneficiary hears the use of Computers and smartphones to choose and buy the product and pay on delivery or through a credit card or debit card for purchases so that the transfer the service or product through DHL company for and delivery services within 30 days.

E-marketing companies allow shoppers to use search features to find brands or specific items. Where the customer must have access to the Internet to be able to browse the company's website and there are features for discounts when using a credit card or a service such as PayPal for physical products (such as books, furniture, and clothing).

E-commerce companies in Jordan, by their nature, are more confronted with the surrounding environment changes that are difficult to predict and which are vulnerable to theft and electronic penetration, where strong information technology must be developed to help them achieve a competitive advantage. Which helps it to continuity, progress, and success.

3.3 Research design

the research has a descriptive and relational design, as it identifies the variables that influence the original problem and the relationships among them

(Tuchman, 2019) with minimal intervention in the natural work environments of the participants with the survey method. Data were collected either by each participant. For this reason, the research was assorted cross-sectionally, with the people as a module of measurement (Hanafi & Fadila, 2017).

Sekaran and Bougie (2016) show that scientific methods use deductive reasoning to test phenomena of the theory on a particular study (a theory is a group of hypotheses that produce testable predictions). Tuchman (2019) suggests that the method used to conduct research should be appropriate to the research question or hypothesis. Quantitative methods are inferred from existing theories developed before data collection and used to test hypotheses and answer the cases studied. Collect empirical data based on hypotheses, and formulate working problems for comparison based on theoretical and empirical data to arrive at the results of the analysis (Sekaran & Bougie, 2016). Therefore, this research includes quantitative methods that test the objective theory by studying the relationships between variables. Based on the questionnaire, this is the main tool for data collection. The Likert scale was used to test the relationship among the research variables of Jordanian e-commerce companies.

Therefore, this topic tried to avoid these defects by doing the following: an official letter from the university was presented to the targeted respondents in Jordanian e-commerce companies to show the credibility and importance of the topic. Cooperation has been made with some of the Jordanian e-commerce companies. According as recommended by Sekaran & Bougie

(2016) to improve response rates, collaborate with a famous research organization.

It cooperated with e-commerce companies in Jordan, which includes 13 companies, distributed the questionnaire to its members. As well as the researchers provide lists of companies with websites for each company, Products, managerial levels, number of employees, and sample used for each company. As illustrated in Table 3. 2 Sample Profile.

Moreover, e-commerce companies in Jordan were chosen because they represent the greatest use of IT and justify their urgent need for how to use this information correctly and effectively and their ability to respond to volatile environmental changes where it is difficult to predict clearly, which poses a great risk if not used correctly and accurately. Consequently, the questionnaire was distributed through a form distributed to companies face to face for one month started from 2/10/2020 to 1/11/2020. Where 250 questionnaires were distributed in all 13 companies in Jordan, and 224 questionnaires were reverted that were accepted for data analysis, and Table 3. 2 clarifies more details of e-commerce companies in a different region in Jordan.

A pilot study of 25 employees was distributed by hand to e-commerce companies in Jordan to ascertain whether respondents clearly understood the questionnaire.

3.4 The type and nature of the study

Based on the aims that the study keeps track of to achieve, which identify the effect among IT capabilities, organizational intelligence, and competitive advantage. The Analytical Descriptive Design approach has been used in the sense that this approach deals with practices and phenomena as they are on the ground, and does not require procedures outside. The researcher's ability, in addition to going beyond collecting data and describing phenomena, to analyzing them and reaching conclusions and recommendations.

3.5 The strategies used in the study

The study was designed as follows:

Firstly: The descriptive approach, which included a description of the study's variables, which included identifying the impact of the IT capabilities and organizational intelligence on competitive advantage by conducting a desk and electronic survey to carry out international books and articles, in addition to the resources available on websites, to capture all the theoretical dimensions of the subject of the study. and building a theoretical framework.

Secondly: the field and analytical aspect, where the field study was conducted to identify the impact of IT capabilities and organizational intelligence on competitive advantage, based on the data gathered by the questionnaire that was prepared.

Thirdly: analyzing the data by the SPSS 25 software for Social Sciences, and using appropriate measures to answer the study's questions and draw conclusions.

3.6 Participants

The population of this study involved the staff from Jordanian e-commerce firms from various managerial levels (e.g., Top-management, Middle-management, supervisors, and managerial employees). The sample size was manager 224 staff which represents 40.7% of the total population that is 550 staff from all managerial positions of the companies. The data collected by convenience sampling, a non-probability technique. Malhotra et al. (2010), suggest that the sample must be more than 150 and perfectly, around 200 to 300 respondents. The primary data arose from a survey questionnaire was arranged from contemporary researches and was supported by (e.g., Ismail & Al-Assa'ad, 2020; Chu et al. 2019; Hadj et al. 2020).

Table 3.2: Sample Profile was used from e-commerce companies in a different region in Jordan

Companies	Field	Title	Number of employees	Sample size	(%)
Namshi.com	house collections & sports	Different Managerial	43	29	13
mumzworld.com	baby clothes & accessories	Different Managerial	52	33	15
Jamalon.com	online book retailer	Different Managerial	34	12	5
Ifood.jo	Food	Different Managerial	22	10	4
MarkaVIP.com	Clothing and accessories	Different Managerial	192	67	30
Wysada.com	Home Furniture & accessories	Different Managerial	31	9	4
khazanti.com	Clothing and accessories	Different Managerial	106	36	16
Other*	Variety	Different Managerial	70	28	13
Total			550	224	100

*Other e-businesses include wholesale/retail, real estate, construction, land, car, travel agency.

3.7 Data collection methods

Two sources of information were used in this research, as follow:

- Secondary sources: the Previous literature, based on the available, available, and documented information in books, references, and published articles, as well as studies in different periodicals. The global electronic databases such as (google search, Ebsco, Emerald, Proquest,) were used to obtain the latest international research on the topic of the research.
- Primary sources: the practical aspect. The questionnaire was relied on in collecting the necessary data for the study. and the authors were used measuring scales that have validity and reliability from previous studies and the authors got approval from them and put them on the

ethics committee from neu, which confirms the validity and reliability of the tools.

3.8 Measures

The design of the survey as a questionnaire involved four parts: ***firstly,*** explained characteristics of the study community, ***secondly*** IT capabilities variables, ***thirdly*** the organizational intelligence variables, ***finally*** the competitive advantage dimensions. The questionnaire was designed by a 5-point Likert scale, where "1" strongly disagrees, "2" disagree, "3" neutral, "4" agree, and "5" strongly agree.

Where the researchers developed a questionnaire that measures the variables of the study, to include a set of questions through which information can be collected in the study community. The questionnaire consisted of four parts, as follows:

First part: which reflected the demographic characteristics of the study community, through questions that are answered through multiple choice, (6) items (Gender, how many full-time employees are in your company, how long have your organization been in business, the long-consumed e-commerce company products, Status of your Organization, and Position in the Organization).

Second part: which included the paragraphs of the questionnaire related to the level of IT capabilities, which included 3 variables: (business spanning,

proactive stance, and infrastructure) from e-commerce companies in Jordan by used a 5-point Likert scale as mentioned above.

Third part: included the paragraphs of the questionnaire related to the level of organizational intelligence, which included seven variables (knowledge deployment, appetite for change, heart, shared fate, alignment & congruence, performance pressure, and strategic vision) from e-commerce companies in Jordan by used a 5-point Likert scale as mentioned above.

The fourth part: which included the paragraphs of the questionnaire related to the level of competitive advantage, included 2 variables (neutralizing threats and exploiting market opportunities) from e-commerce companies in Jordan by using a 5-point Likert scale as mentioned above.

This study used 3 dimensions of IT capability (i.e., business spanning, proactive stance, and infrastructure). where IT infrastructure capacity highlights the capability of the organizations to organize stages and associated software of the systems. Information technology of business spanning includes the capability to demonstrate the organization's capability to effectively enhance business objectives by information technology materials. The proactive IT stance focuses on how organizations can actively leverage existing IT ability to produce new corporate resources (Lu & Ramamurthy, 2011; Yizhou Chu et al., 2019). In terms of organizational intelligence, researchers used 7 variables (i.e., knowledge deployment, appetite for

change, heart, shared fate, alignment & congruence, performance pressure, and strategic vision) (Albrecht, 2002; Ismail & Al-Assa'ad, 2020).

The research was used the competitive advantage and measured 2 variables on it (i.e., neutralizing threats and exploiting market opportunities) (Sigalas, 2015). The EMO uses 3 various possibilities (e.g., the development of all EMO; Full development of EMO; and more development of EMO compared to its competitors). Neutralizing threats as well use 3 ways (e.g., neutralizing threats wholly intimidations current on the marketplace; wholly neutralizing the rivalry neutralizing intimidations, and neutralizing intimidations extra efficiently than its players) (Hadj et al. 2020).

3.9 Study variables

There are 3 variables for the study: the independent variable, the mediating variable, and the dependent variable, and they will be mentioned.

- Independent Variable:

IT capabilities, which included 3 Variables: (business spanning, proactive stance, and infrastructure).

- Mediating variable:

Organizational intelligence was included in 7 dimensions (shared fate, appetite for change, heart, strategic vision, knowledge deployment, performance pressure, and alignment & congruence).

- Dependent variable:

Competitive advantage, which included 2 variables (neutralizing threats and exploiting market opportunities).

3.10 Descriptive analysis of the study population

This part of the research deals with the statistical description of each of the statements included in the questionnaire using the average mean, standard deviation, and the general assessment of opinions according to the average mean.

Since the length of each of the previous five-dimensional periods is equal to (0.80) of the unit based on the law of periods = ((the distances between periods - 1) / number of periods)) (4/5) = 0.80, and therefore there is no bias in any of the previous estimates, but this gives fairness in the assessment of public opinion (Sekaran & Bougie, 2016).

From the results, the values of the arithmetic averages reached by the research are dealt with as follows for the quintile: (3.67 - and above: high), (2.34 - 3.66: medium), (2.33 - and below: low). According to the following equation: The highest value - the lowest value of the answer alternatives divided by the number of levels, i.e., (5-1/3) = 4/3 = 1.33. This value is equal to the length of the class 1.33, so it is:

- Low level 1 + 1.33 = 2.33, from 1- 2.33 low level.
- And the medium level is from 2.34 + 1.33 = 3.67, from 2.34 - 3.67 is a medium level.
- And the high level is from 3.68 - 5.

Table3. 3: 5-point Likert scale

Overall Likert Scale	Arithmetic mean period
5-point Likert scale	
Strongly disagree	1.80-1.00
Disagree	2.60-1.81
Neither agree	3.40-2.61
Agree	4.20-3.41
Strongly agree	5.00-4.21

3.11 Analytical procedure

The study was based on the use of the following statistical analyses to ascertain the degree of reliability and validity of the data for the use of the necessary statistical measures. It was preferred to use multiple linear regression analysis because it is one of the best statistical analyses to measure the degree of influence between the study's hypotheses and answer its questions, and then PROCESS Macro v3.5 to measure the direct and indirect relationship and the period between the study variables of the study to contribute to improving the degree of interdependence between the variables and their contribution to science, as the methods were used as follow:

- The characteristics results of the participants.
- Presented summary statistical averages, normality, reliability readiness, and validity tests.

- Multi-linear correlation test to examine the relationships between variables and internal validity tests.
- Validity through factor analysis to measure sufficient items for each factor and sufficiently correlated.
- Multi-linear regression analysis helped to examine the study's hypotheses.
- Examined the mediating effect via "PROCESS Macro v3.5 software by Andrew F. Hayes" by SPSS to find out the relationship between independent and dependent variables.

CHAPTER 4

DATA ANALYSIS AND RESULTS

4.1 Introduction

All the 224 questionnaires were realized. The research was used an "SPSS 25 software" to find out the demographic findings of the participants and presented reliability, normality, summary statistical averages, criterion-related validity tests. Moreover, it used a multi-linear correlation test to examine the relationships between variables, then factor analysis to tells whether you have sufficient items for each factor and to check that the original variables are sufficiently correlated. And, multi-linear regression analysis helped to examine the study's hypotheses and answer their questions. Finally, examined the mediating tests via "Process macro version 3.5 software by Andrew F. Hayes" by SPSS to find out the relationship between the independent and dependant for both direct and indirect ways.

4.2 The demographic findings of the participants

All the 224 questionnaires were realized. The researchers wanted to know the gender distribution of respondents and how it might affect the results. The results showed that 63% of respondents were male, while 37% were female. Besides, 37% of organizations had 51-100 full-time employees, 25% of organizations had 20-50 Employees, while 20% had above 100 employees.

The findings also revealed that 18% of organizations had less than 20 employees working full-time. The findings find out the 3 categories of small, medium and large companies according to the number of employees they had. However, the majority of firms sampled had 51-100 employees with small size companies being minimal at 18%. Moreover, about the organization in the business: the results showed that below five years 45%, 5-10 years 38%, 11-20 years 16%, while over 20 Years 1%, This indicates that the organization is continuously evolving. The research also indicated that the majority 35% of respondents had been e-commerce companies' customers, in Jordan and have consumed the products for 11-20 Years, giving a good representation of the research sample. 32% have been customers for a period of between 5-10 years, followed by 25% have consumed the products over 20 years while 8% for the period of fewer than five years. It is also an indication of the fact that e-commerce companies in Jordan.

The plurality of the organizations sampled reached that they are private limited organizations as assimilated by a true proportion of 41%, public limited firms' proportion by 28%, the government presented by 23%. In comparison, the remaining 8% represents sole private use. The researcher requested that the respondents indicate their positions or management levels, which they belonged. From the research findings, most of the respondents as shown by 38% indicated that they belonged middle management level, 29% of the respondents indicated they belonged supervisors' level, 21% were generalized under operations and others whereas 13% belonged to top management level, and this indicates to logic in distribution.

Table 4.4: Demographic findings

Variable	Categories	Frequency	Percent
Gender	Male	141	62.9
	Female	83	37.1
Full-time employees are in the company	Below 20 Employees	41	18.3
	20 - 50 Employees	56	25.0
	51 - 100 Employees	82	36.6
	Over 100 Employees	45	20.1
Organization in business	Below 5 years	100	44.6
	5 - 10 years	86	38.4
	11 - 20 years	36	16.1
	Over 20 Years	2	0.9
The long-consumed E-commerce company products	Less than 5	18	8.0
	5 - 10 Years	71	31.7
	11 - 20 Years	78	34.8
	Over 20 Years	57	25.4
Status of your organization	Public Limited Company	63	28.1
	Private Limited Company	92	41.1
	Government Institution	51	22.8
	Sole/Private use	18	8.0
Position in the Organization	Top Management	28	12.5
	Middle Management	84	37.5
	Supervisor	64	28.6
	Managerial Employees	48	21.4
	Total	224	100.0

4.3 Test of reliability

The findings of the Cronbach's alpha (α) analysis clarify that the reliability was for the competitive advantage dimensions are (70%), Information Technology Capabilities dimensions are (85%), and The organizational intelligence dimensions are (95%), while the total stability percentage is 96%, which tell us the acceptance rate of the average is 60%, which ensure the reliability of this research of the scale is good reliable (Hanafi & Fadilah, 2017).

Table 4.5: Reliability through Cronbach's alpha

Variables	Cronbach's Alpha
Information Technology Capabilities	**0.85**
Infrastructure	0.69
Business spanning	0.70
Proactive stance	0.70
Organizational Intelligence	**0.95**
Strategic vision	0.72
Shared fate	0.64
Appetite for change	0.73
Heart	0.80
Alignment & congruence	0.77
Knowledge deployment	0.68
Performance pressure	0.80
Competitive Advantage	**0.70**
Exploiting market opportunities	0.65
Neutralizing threats	0.70
All Variables	**0.96**

4.4 Test of multicollinearity statistics

According to (Sekaran & Bougie, 2016), VIF must be less than “5” Hence, no there is a problem that must be fixed (no there is multicollinearity). As a variance inflation factor for the study variables.

Table 4.6: Variance inflation factor

Model		Tolerance	VIF
	IT Capabilities		
OI →	Infrastructure	.600	1.667
	Business spanning	.485	2.063
	Proactive stance	.601	1.663
	IT Capabilities		
EMO →	Infrastructure	.600	1.667
	Business spanning	.485	2.063
	Proactive stance	.601	1.663
	IT Capabilities		
NT →	Infrastructure	.600	1.667
	Business spanning	.485	2.063
	Proactive stance	.601	1.663

4.5 Test of normality statistics

Test of normality clarified all of the values of test of normality statistics are between ±2.58, which showed that all the research variables data are distributed naturally (Hair et al. 2014).

Table 4.7: Skewness-Kurtosis

	Skewness		Kurtosis	
	Statistic	**Std. Error**	**Statistic**	**Std. Error**
ITI	-.296	.163	-.146	.324
ITB	-.248	.163	-.108	.324
ITP	-.213	.163	-.284	.324
SV	-.776	.163	.597	.324
SF	-.517	.163	.561	.324
A. Ch.	-.607	.163	.480	.324
H	-.578	.163	.269	.324
AC	-.691	.163	.558	.324
KD	-.746	.163	.567	.324
PP	-.855	.163	1.005	.324
EMO	-.603	.163	.335	.324
NT	-.704	.163	.571	.324
ITC	-.306	.163	-.075	.324
OI	-.786	.163	.605	.324
CA	-.997	.163	1.374	.324

4.6 Descriptive statistics

The researchers wanted to know the Descriptive statistics averages of respondents to measure the study questions and how it might affect the results.

“Table 4.8” shows that the statistical averages for IT infrastructure ranged from 3.34 to 3.58, where the axis obtained total arithmetic mean 3.47 was intermediate from the respondents’ perspectives. Where availability of network communication services (e.g., connectivity, reliability, availability, LAN, WAN, etc.) had the highest M of 3.58 and an SD of.816 In contrast, in the last one, came to the availability and using application portfolio & services (e.g., ERP, ASP, reusable software modules/components, emerging technologies, etc.) with an M of 3.34 and SD .794 which is of the intermediate level. This explains that the degree of the use of the availability of network communication services by the e-business companies operating in Jordan was medium-average from the perspective of members of the research members.

Table 4.8: Descriptive statistics of IT infrastructure.

	N	Minimum	Maximum	Mean	Std. Deviation
ITI1	224	1	5	3.51	.809
ITI2	224	2	5	3.58	.816
ITI3	224	1	5	3.34	.794
ITI4	224	1	5	3.45	.779
ITI	**224**	**1.75**	**4.75**	**3.47**	**.576**

“Table 4.9” shows that the statistical averages for IT business spanning, ranged from 3.33 to 3.54, where the axis obtained total arithmetic M 3.46 was intermediate from the respondents’ perspectives. Where the firms achieving an action and more flexible of its planning process, and developing a plan had the highest M of 3.54 and SD of.983 In contrast, in the last one, came to the

company has been leading to a clear mission according to how it redounds to work value with M of 3.33 and SD .762 which is of the intermediate level. This explains that the degree of the company establishing an effective and flexible it planning process and developing a plan by the e-business companies operating in Jordan was medium-average from the perspective of members of the research members.

Table 4.9: Descriptive statistics of IT business spanning

	N	Minimum	Maximum	Mean	Std. Deviation
ITB1	224	2	5	3.33	.762
ITB2	224	1	5	3.50	.923
ITB3	224	1	5	3.48	.933
ITB4	224	1	5	3.54	.983
ITB	**224**	**1.50**	**5.00**	**3.46**	**.653**

“Table 4.10” shows that the statistical averages of the proactive attitude to information technology ranged from 3.38 to 3.61, with the pivot having total arithmetic mean of 3.47 which was average from the respondents’ point of view. As the company is able and continues to experiment with new as necessary, it had the highest M of 3.61 and SD of 0.912 in contrast, in the last of which the firm came constantly looking for new ways to enhance the effectiveness of its use. With an M of 3.38 and SD of 0.963, it is from the mean. This shows that the degree of the company's ability and the continuation of its new experience as necessary by the e-business companies operating in

Jordan was medium-average from the point of view of the study community members.

Table 4.10: Descriptive statistics of IT proactive stance.

	N	Minimum	Maximum	Mean	Std. Deviation
ITP1	224	1	5	3.45	.882
ITP2	224	1	5	3.61	.912
ITP3	224	1	5	3.45	1.010
ITP4	224	1	5	3.38	.963
ITP	**224**	**1.75**	**5.00**	**3.47**	**.680**

“Table 4.11” shows that the statistical averages of the strategic vision ranged from 3.50 to 4.05, with the pivot having total arithmetic, M of 3.77 which was the mean from the respondents’ point of view. Where there is an annual strategic review, in which all executives and other key leaders revisit the organization's environment, the trend, and key strategic priorities had a higher M of 4.05 and SD of .882 by contrast, the last time there came a "strategic conversation" Continuous across the organization, i.e., a continuous discussion of the business environment and ways to address the challenges it poses with an M of 3.50 and SD of 0.933 which is the mean level. This shows that the degree of the annual strategic review, whereby all executives and other key leaders reconsider the organization's environment, direction, and key strategic priorities for e-business companies operating in Jordan was the highest average from the viewpoint of the study community members.

Table 4.11: Descriptive statistics of strategic vision.

	N	Minimum	Maximum	Mean	Std. Deviation
SV1	224	1	5	3.50	.933
SV2	224	1	5	3.66	.943
SV3	224	1	5	4.05	.882
SV4	224	1	5	3.89	.936
SV5	224	1	5	3.80	.918
SV6	224	1	5	3.65	.881
SV7	224	1	5	3.84	.914
SV	**224**	**2.00**	**4.86**	**3.77**	**.561**

"Table 4.12" shows that the statistical averages of the participation fate ranged between 3.46 and 3.90, where the arithmetic M of the axis was 3.71, which is an average from the respondents' point of view. Where employees express their feeling of partnership with the management, instead of feeling alienated and hostile, the highest M was 3.90 and the SD was 0.695. In contrast, the management’s participation plans, priorities, and operational results with employees came in the last with an M of 3.50 and SD of 1.01, which is from the average level. This indicates that the degree of employees expressing a sense of partnership with management, rather than a feeling of alienation and hostility by e-business companies operating in Jordan was at the highest average from the viewpoint of the study members.

Table 4.12: Descriptive statistics of share fate.

	N	Minimum	Maximum	Mean	Std. Deviation
SF1	224	1	5	3.46	1.010
SF2	224	1	5	3.82	.730
SF3	224	1	5	3.86	.887
SF4	224	1	5	3.66	.971
SF5	224	2	5	3.90	.695
SF6	224	1	5	3.60	.932
SF7	224	1	5	3.70	.866
SF	**224**	**2.29**	**5.00**	**3.71**	**.493**

“Table 4.13” shows that the statistical averages of willingness to change ranged from 3.57 to 3.94, with the axis having total arithmetic mean of 3.71 that was average from the respondents’ point of view. Where management encourages an atmosphere of openness to and acceptance of change and thinking of working in new and innovative ways the highest M was 3.94 and SD 0.959 In contrast, the latter came to the bureaucratic “brush” (for example, rules for outdated rules, policies and procedures) was kept at the minimum with an M of 3.57 and SD of 891 which is the mean level. This shows that the degree of management promotes an atmosphere of openness to and acceptance of change and that business thinking in new and innovative ways by e-business companies operating in Jordan was at the highest average from the perspective of the study community members.

Table 4.13: Descriptive statistics of appetite for change.

	N	Minimum	Maximum	Mean	Std. Deviation
ACh1	224	1	5	3.59	1.042
ACh2	224	1	5	3.73	.938
ACh3	224	1	5	3.66	.943
ACh4	224	1	5	3.86	.902
ACh5	224	1	5	3.57	.891
ACh6	224	1	5	3.66	.905
ACh7	224	1	5	3.94	.959
A. Ch	**224**	**2.00**	**5.00**	**3.71**	**.580**

“Table 4.14” shows that the statistical averages of the heart ranged from 3.50 to 3.97, with the axis having a total arithmetic M of 3.67 which was average from the respondents’ point of view. Where managers approach their jobs with energy, enthusiasm, and optimism, the highest M was 3.97 and the SD was 0.905. By contrast, employees came to believe that management had their best interests at heart with an M of 3.50 and SD of 0.928, which is from the mean. This shows that the degree of managers approaching their jobs with energy, enthusiasm, and optimism by e-business companies operating in Jordan was at the highest average from the point of view of the study community members.

Table 4.14: Descriptive statistics of heart.

	N	Minimum	Maximum	Mean	Std. Deviation
H1	224	1	5	3.76	.782
H2	224	1	5	3.50	.928
H3	224	1	5	3.59	1.029
H4	224	1	5	3.58	.963
H5	224	1	5	3.67	.845
H6	224	1	5	3.97	.905
H7	224	1	5	3.64	.974
H	**224**	**1.71**	**5.00**	**3.67**	**.622**

“Table 4.15” shows that the statistical averages of alignment and congruence ranged from 3.50 to 3.88, with an overall M axis of 3.68 which was average from the respondents’ point of view. Where business processes facilitate employee performance and productivity rather than hinder him, the highest M was 3.88 and SD 0.830 in contrast, in the latter came to information systems that enable employees to create value for their customers with M of 3.50 and SD of 0.928 which is from the average level. This indicates that the degree of business operations that facilitate employee performance and productivity rather than hindering them by e-business companies operating in Jordan was at the highest average from the point of view of the study community members.

Table 4.15: Descriptive statistics of alignment and congruence.

	N	Minimum	Maximum	Mean	Std. Deviation
AC1	224	1	5	3.60	.937
AC2	224	1	5	3.66	.874
AC3	224	2	5	3.88	.830
AC4	224	1	5	3.67	.969
AC5	224	1	5	3.50	.928
AC6	224	1	5	3.72	.935
AC7	224	1	5	3.71	.847
AC	**224**	**1.86**	**4.86**	**3.68**	**.58398**

"Table 4.16" shows that the statistical averages of knowledge dissemination ranged between 3.60 and 3.85, with a total M of 3.69 for the axis, which is average from the respondents' point of view. In the case of normal “cultural” processes through which people exchange knowledge and exchange important business information, the top M was 3.85 and SD .804, in contrast, came last to programs established by management to support continuous learning and career development for all employees with an M of 3.60 and SD of 0.937 He is average level. This indicates that the degree to which there are natural "cultural" processes through which people share knowledge and exchange important business information by e-business companies operating in Jordan was the highest average from the point of view of the study community members.

Table 4.16: Descriptive statistics of knowledge deployment.

	N	Minimum	Maximum	Mean	Std. Deviation
KD1	224	1	5	3.85	.804
KD2	224	1	5	3.64	.808
KD3	224	1	5	3.80	.918
KD4	224	1	5	3.63	.868
KD5	224	1	5	3.63	.909
KD6	224	1	5	3.60	.937
KD7	224	1	5	3.67	.852
KD	**224**	**2.14**	**4.71**	**3.69**	**.510**

"Table 4.17" shows that the statistical averages of performance pressures ranged between 3.45 and 3.90, with a total M of 3.61 for the axis, which is average from the respondents' point of view. Where employees feel that their work contributes to the success of the organization was the top M of 3.90 and SD .852. On the contrary, in the latter, employees came to believe that their salaries and professional success to some extent determine their job performance with an M of 3.45 and SD of 0.882, which is from the average level. This indicates that the degree of employees' feeling that their work contributes to the success of the project by e-business companies operating in Jordan was at the highest average from the point of view of the study community members.

Table 4.17: Descriptive statistics of performance pressure.

	N	Minimum	Maximum	Mean	Std. Deviation
PP1	224	1	5	3.48	.928
PP2	224	1	5	3.66	.943
PP3	224	1	5	3.70	.866
PP4	224	1	5	3.59	.938
PP5	224	1	5	3.50	.980
PP6	224	1	5	3.90	.852
PP7	224	1	5	3.45	.882
PP	**224**	**1.57**	**5.00**	**3.61**	**.619**

"Table 4.18" shows that the statistical averages of exploiting market opportunities ranged from 3.72 to 4.05, with a total arithmetic M of 3.88, which is average from the respondents' point of view. Where the e-commerce company's exploitation of all market opportunities was the top M of 4.05 and SD of 0.82 In contrast, in the past the e-commerce company came to fully exploit the market opportunities with an M of 3.72 and SD of 0.935 which is from the average level. This indicates that the degree of e-commerce companies' exploitation of all market opportunities by e-business companies operating in Jordan was at the highest average from the point of view of the study community members.

Table 4.18: Descriptive statistics of exploiting market opportunities.

	N	Minimum	Maximum	Mean	Std. Deviation
EMO1	224	1	5	4.05	.882
EMO2	224	1	5	3.72	.935
EMO3	224	1	5	3.85	.804
EMO	**224**	**2.00**	**5.00**	**3.88**	**.671**

"Table 4.19" shows that the statistical averages of threat neutralization ranged from 3.50 to 3.82, with an overall arithmetic M of the axis being 3.67 which was average from the respondents' point of view. Where the e-commerce company was better than the competitors with the top M of 3.82 and SD of 0.730 in return, and in the last of which the e-commerce company came to completely neutralize the market threats with M of 3.50 and SD of 0.928 which is from the average level. This indicates that the degree to which e-commerce companies neutralize market threats better than competitors by e-business companies operating in Jordan was the highest average from the point of view of the study community members.

Table 4.19: Descriptive statistics of neutralizing threat.

	N	Minimum	Maximum	Mean	Std. Deviation
NT1	224	1	5	3.67	.969
NT2	224	1	5	3.50	.928
NT3	224	1	5	3.82	.730
NT	**224**	**1.67**	**5.00**	**3.67**	**.694**

Table 4.20 shows that the statistical averages of information technology ability, organizational intelligence, and competitive advantage ranged between 3.47 and 3.77, where the axis got an overall M that was average from the respondents' point of view. Where the competitive advantage had the highest M of 3.77 and SD of 0.550, on the contrary, the last IT ability came with an M of 3.47 and SD of 0.539 which is the average level. This indicates that the degree of competitive advantage for e-business companies operating in Jordan was the highest average from the point of view of the study members' community.

Table 4.20: Descriptive statistics of IT capabilities, organizational intelligence, and competitive advantage.

	N	Minimum	Maximum	Mean	Std. Deviation
ITC	224	1.83	4.67	3.47	.539
OI	224	2.22	4.65	3.70	.495
CA	**224**	**2.00**	**4.83**	**3.77**	**.550**

4.7 Summary statistics and internal validity of bivariate correlations

A correlation test was tested through the "IBM SPSS 25" software to examine the relationships between the study variables and ensure the independence of that the variables that took place.

The correlation test measures the independence of the study variables and the relationship between respondents in terms of understanding the different variables. It is at the level of statistical significance $p < .01$, which showed the credibility of all study variables. Where each variable had a higher degree of

correlation with itself than the other variables, which enhanced the independence of all research variables (Hanafi & Fadilah, 2017; Tuchman, 2019).

The internal validity of the correlations indicated that there is no number less than 0.20, so there is no weak correlation between the research variables. Moreover, there is no number more than 0.90, so there is no multicollinearity between the study variables which confirms the validity of all study variables. All the results of the above tables were reinforced from the preliminary tests to verify the safety of the study variables and the research community in an interesting way, which made these data suitable for applying linear regression analysis to answer the research questions and hypotheses**.**

Table 4.21: Pearson correlation.

	ITI	ITB	ITP	SV	SF	A.Ch.	H	AC	KD	PP	EMO	NT
ITI	1											
ITB	.619**	1										
ITP	.485**	.618**	1									
SV	.545**	.538**	.509**	1								
SF	.514**	.563**	.495**	.674**	1							
A.Ch.	.633**	.521**	.595**	.725**	.679**	1						
H	.611**	.532**	.560**	.664**	.699**	.726**	1					
AC	.593**	.592**	.610**	.700**	.697**	.744**	.824**	1				
KD	.627**	.601**	.631**	.713**	.716**	.743**	.731**	.764**	1			
PP	.630**	.618**	.653**	.747**	.669**	.710**	.707**	.742**	.780**	1		
EMO	.449**	.290**	.327**	.594**	.393**	.516**	.521**	.593**	.555**	.555**	1	
NT	.442**	.504**	.450**	.564**	.730**	.527**	.681**	.796**	.593**	.608**	.297**	1

** Correlation is significant at the 0.01 level (2-tailed). N= 224

4.8 Validity through Factor analysis

The aims of factor analysis are dimension reduction items, and the variables should be linearly related to each other. Hence, it tells if the data have validity in their items and the original study variables contained sufficiently correlated.

KMO test confirms the validity of all the study variables due to the percentage is 91% and more than 70%.

Moreover, the p-value is “0.000” less than 0.05. This indicates that Bartlett's Test useful with the data used.

Table 4.22: KMO and Bartlett's Test.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.912
Bartlett's Test of Sphericity	Approx. Chi-Square	2307.655
	Df	66
	Sig.	.000

4.9 Linear regression analysis

Multilinear regression analysis measures the effect between the study variables, i.e., independent and dependent variable, as it shows the degree of interdependence between each other's to discover the positive or negative impact on it, which enhances the experimental sciences with the benefit of the study results and answering the research questions and hypotheses.

R square specified that IT capabilities demonstrated that the value is “0.627” from organizational intelligence. Also, DW should be among 2.5 <= D.W >= 1.5, hence there isn't auto-correlation between the research model.

Table 4.23: Model Summary of "ITP, ITI, ITB" on OI.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.792[a]	.627	.622	.30449	1.879

a. Predictors: (Constant), ITP, ITI, ITB

b. Dependent Variable: OI

The value of the F-test is “123.2” which ensured that the model is significance level at p-value =< 0.05.

Table 4.24: ANOVA of "ITP, ITI, ITB" on OI.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34.270	3	11.423	123.206	.000[b]
	Residual	20.398	220	.093		
	Total	54.667	223			

a. Dependent Variable: OI

b. Predictors: (Constant), ITP, ITI, ITB

The t-test indicates that all study variables represent a level of significance at p = < 0.05. Moreover, the proactive stance (.363), business spans (.180), and infrastructure (.394) indicates that IT capabilities are closely related to organizational intelligence. When IT capabilities increase by one score intelligence will increase regulatory according to the beta coefficient.

Table 4.25: Coefficients of "ITP, ITI, ITB" on OI.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	**(Constant)**	1.125	.136		8.273	.000
	ITI	.339	.046	.394	7.416	.000
	ITB	.136	.045	.180	3.039	.003
	ITP	.264	.039	.363	6.838	.000

a. Dependent Variable: OI

b. Predictors: (Constant), ITP, ITI, ITB

R square specified that IT capabilities demonstrated that the value is “0.375” from organizational intelligence. Also, DW should be among 2.5 <= D.W >= 1.5, hence there isn't auto-correlation between the research model.

Table 4.26: Model Summary of OI on EMO.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
2a	.612[a]	.375	.372	.53181	1.560

a. Predictors: (Constant), OI

b. Dependent Variable: EMO

The value of the F-test is “133.2” which ensured that the model is significance level at p-value =< 0.05.

Table 4.27: ANOVA of OI on EMO.

Model		Sum of Squares	df	Mean Square	F	Sig.
2a	Regression	37.685	1	37.685	133.248	.000[b]
	Residual	62.786	222	.283		
	Total	100.472	223			

a. Dependent Variable: EMO
b. Predictors: (Constant), OI

The t-test indicates that all study variables represent a level of significance at p = < 0.05. Moreover, the organizational intelligence is “0.612”, which indicates that organizational intelligence is closely related to exploiting market opportunities when it increases by one-score, exploiting market opportunities will increase regulatory according to the beta coefficient.

Table 4.28: Coefficients of OI on EMO.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
2a	(Constant)	.811	.268		3.025	.003
	OI	.830	.072	.612	11.543	.000

a. Dependent Variable: EMO

R square specified that exploiting market opportunity demonstrated that the value is “0.54” from organizational intelligence. Also, DW should be among 2.5 <= D.W >= 1.5, hence there isn't auto-correlation between the research model.

Table 4. 29: Model Summary of OI on NT.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
2b	.735[a]	.541	.539	.47189	1.674

a. Predictors: (Constant), OI
b. Dependent Variable: NT

The value of the F-test is “261.51” which ensured that the model is significance level at p-value =< 0.05.

Table 4.30: ANOVA of OI on NT.

Model		Sum of Squares	df	Mean Square	F	Sig.
2b	**Regression**	58.232	1	58.232	261.507	.000[b]
	Residual	49.434	222	.223		
	Total	107.666	223			

a. Dependent Variable: NT
b. Predictors: (Constant), OI

The t-test indicates that all study variables represent a level of significance at p = < 0.05. Moreover, the organizational intelligence is “0.612” is closely related with the neutralizing threats when IT capabilities increase by one score intelligence will increase regulatory according to the beta coefficient.

Table 4.31: Coefficients of OI on NT.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
2b	**(Constant)**	-.146	.238		-.614	.540
	OI	1.032	.064	.735	16.171	.000

a. Dependent Variable: NT

R square specified that IT capabilities demonstrated that the value is “0.22” from organizational intelligence. also, DW should be among 2.5 <= D.W >= 1.5, hence there isn't auto-correlation between the research model.

Table 4.32: Model Summary of “ITP, ITI, ITB” on EMO.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
3a	.469[a]	.220	.209	.59684	1.519

a. Predictors: (Constant), ITP, ITI, ITB
b. Dependent Variable: EMO

The value of the F-test is “20.68” which ensured that the model is significance level at p-value =< 0.05.

Table 4.33: ANOVA of “ITP, ITI, ITB” on EMO.

Model		Sum of Squares	df	Mean Square	F	Sig.
3a	**Regression**	22.103	3	7.368	20.683	.000[b]
	Residual	78.368	220	.356		
	Total	100.472	223			

a. Dependent Variable: EMO
b. Predictors: (Constant), ITP, ITI, ITB

The t-test indicates that all study variables represent a level of significance at p = < 0.05. Moreover, the proactive stance (0.17), business spans (-0.06), and infrastructure (0.40) indicate that IT capabilities are closely related to the exploiting market opportunities when IT capabilities increase by one score the exploiting market opportunities will increase regulatory according to the beta coefficient.

Table 4.34: Coefficients of “ITP, ITI, ITB” on EMO.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
3a	**(Constant)**	1.878	.267		7.045	.000
	ITI	.477	.090	.409	5.318	.000
	ITB	-.071	.088	-.069	-.811	.418
	ITP	.170	.076	.172	2.243	.026

a. Dependent Variable: EMO
b. Predictors: (Constant), ITP, ITI, ITB

R square specified that IT capabilities demonstrated that the value is “0.30” from organizational intelligence. Also, DW should be among 2.5 <= D.W >= 1.5, hence there isn't auto-correlation between the research model.

Table 4.35: Model Summary of “ITP, ITI, ITB” on NT.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
3b	.552[a]	.304	.295	.58342	1.556

a. Predictors: (Constant), ITP, ITI, ITB
b. Dependent Variable: NT

The value of the F-test is “32.10” which ensured that the model is significance level at p-value =< 0.05.

Table 4.36: ANOVA of “ITP, ITI, ITB” on NT.

Model		Sum of Squares	df	Mean Square	F	Sig.
3b	**Regression**	32.782	3	10.927	32.103	.000[b]
	Residual	74.885	220	.340		
	Total	107.666	223			

a. Dependent Variable: NT
b. Predictors: (Constant), ITP, ITI, ITB

The t-test indicates that all study variables represent a level of significance at p = < 0.05. Moreover, the proactive stance (0.20), business spans (0.27), and infrastructure (0.18) indicate that IT capabilities are closely related to the neutralizing threats when IT capabilities increase by one score the neutralizing threats will increase regulatory according to the beta coefficient.

Table 4.37: Coefficients of "ITP, ITI, ITB" on NT.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
3b	(Constant)	1.218	.261		4.674	.000
	ITI	.215	.088	.178	2.457	.015
	ITB	.291	.086	.273	3.385	.001
	ITP	.199	.074	.195	2.689	.008

a. Dependent Variable: NT
b. Predictors: (Constant), ITP, ITI, ITB

4.10 PROCESS Micro v3.5

This test used to contribute to the relationship between the study variables by explore the direct and indirect effect between the study variables and offer the algorithm equation to know the period between the study variables and reveal the extent of their impact, which contributes to improving research and developing new theories that contribute to science.

Model4a, IT capabilities, and organizational intelligence strongly affect exploiting market opportunities. the finding was realized according to 95% dependability and boosted CI for 5000 samples. while the limit of ULCI is 95% and 95% for LLCI dependability periods for direct and indirect impacts not

allowed include zero between the numbers (Hayes, 2015). The finding clarified on the direct effect of the IT capabilities on exploit market opportunities is significant according to p-value = .0466, on another hand, LLCI/ULCI = -.4204/-.0033 is not significant due to its almost zero numbers (path C).

the indirect impact by using organizational intelligence among IT capabilities and the exploiting market opportunities in the significant at p-value = .000, moreover, LLCI/ULCI = .3670/.6668 significant too because of the number between them not include zero, the dependability did not show us the numbers among them is zero (path B). Moreover, IT capability on organizational intelligence is significant at p-value = .000, also LLCI/ULCI = .6432/.7961 is significant because the number not include zero (path a).

In summarization (H4a), there is a strong relationship between IT capability and exploiting market opportunities by using the mediating role of organizational intelligence which enhances the relationship between the study variables (Hayes, 2015).

Table 4.38: Direct and indirect effect of "ITC, OI" on EMO.

Model 4a	R2	F test	T-test	P-value	LLCI	ULCI	P-value Sig/not Sig	LLCI/ULCI Sig/not Sig
Path a ITC → IO	.61	354.94	18.84	.000	.6432	.7961	Sig.	Sig.
Path b IO → EMO	.62	69.52	8.4487	.000	.7841	1.2381	Sig.	Sig.
Path c ITC → EMO	.62	69.52	.2118	.0466	-.4204	-.0033	Sig.	Not sig.

a. Dependent Variable: EMO
b. Predictors: (Constant), ITC, OI

Model 4b, IT capabilities and organizational intelligence strongly impact on neutralizing threats. in this result, the finding depended on 95% of dependability and the CI in the 5,000 samples. whereas the duration particular by ULCI is 95% and the LLCI is 95% of the dependability period for direct and indirect impacts must not involve the zero number among the numbers (Hayes, 2015). The finding clarified that the direct impact of IT capabilities on neutralizing threats is significant at p-value= .035, while the LLCI/ULCI= -.2748/.0980, are not significant because the number among them contained zero (Path c).

On the other part, the indirect impact if we using organizational intelligence between IT capabilities and neutralizing threats is significant at p-value= .000, furthermore, LLCI/ULCI= .5674/.8522 is significant because the number between them not refer to the zero (Path b). Furthermore, the impact of IT capabilities on organizational intelligence is significant at p-value =.000, and LLCI/ULCI = .6432/.7961 are significant in results of the number between them not refer to zero (Path a).

In summarization (H4b), there is a strong relationship between IT capability and neutralizing threats by using the mediating role of organizational intelligence which enhances the relationship between the study variables (Hayes, 2015).

Table 4.39: Direct and indirect effect of "ITC, OI" on NT.

Path 4b	R2	F test	T-test	P-value	LLCI	ULCI	P-value Sig/not Sig	LLCI/ULCI Sig/not Sig
Path a ITC → IO	.61	354.94	18.84	.000	.6453	.7961	Sig.	Sig.
Path b IO → NT	.5427	131.115	10.761	.000	.9047	1.3104	Sig.	Sig.
Path c ITC → NT	.542	131.115	.9348	.035	-.2748	.0980	sig.	Not sig.

a. Dependent Variable: NT
b. Predictors: (Constant), ITC, OI

The illustration portrait of the direct and indirect relationships between the study variables:

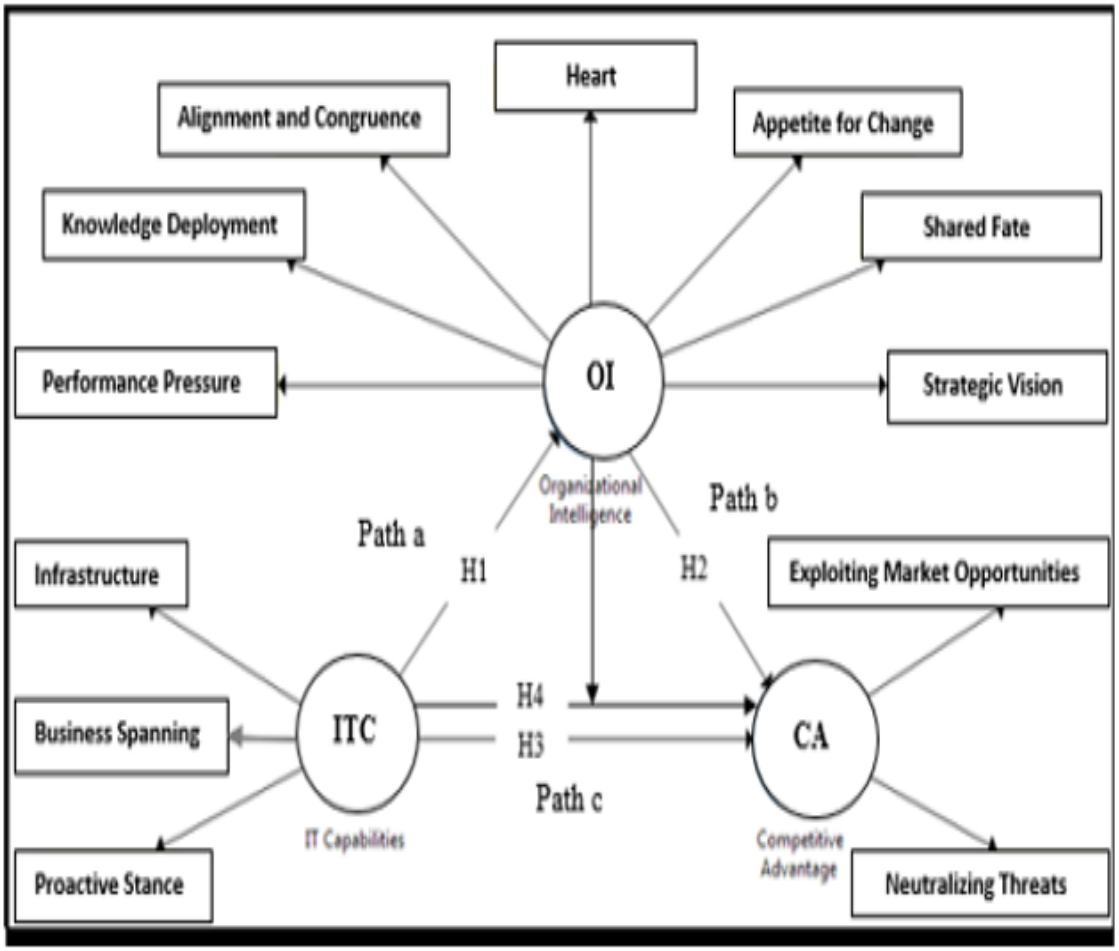


Figure 4. The structural model illustrated the direct and indirect effects of the relationship between independent variables (ITCs) and dependent variables (CA) along with the mediation effect (OI).

Note.

Indicates direct relationship (Path c).

Indicates mediational relationship (Path a & Path b).

CHAPTER 5

DISCUSSION

This chapter concludes the study and provides discussions of the research results and compares it with previous research. The contribution to the practice and the theory, limitations, future research, and conclusion are discussed.

5.1 Discussion

The aim of this research was to recognizing the effect of IT capabilities on competitive advantage and examining the mediating role of organizational intelligence. to test the hypotheses of this study, the data were subjected to advanced statistical analysis that was developed based on relevant literature, set of hypotheses, using correlation analysis, multiple linear regression analysis, and PROCESS Macro v3.5 was tested to determine the influence of IT capabilities in three dimensions; Business spanning, Infrastructure, and Proactive stance. Using a competitive advantage such as neutralizing threats strategies and exploiting market opportunities, exploring the mediating role of organizational-intelligence in its variables (Heart, Appetite for Change, Alignment & Congruence, Strategic Vision, Shared Fate, Performance Pressure, and Knowledge Deployment) in e-commerce companies in Jordan.

Thus, the purpose was accomplished, and significant implications are discussed in the rest of this sector. Table 5. 37 presents the results of the study's hypotheses, then answering the study questions in this section, and comparing them with previous studies to achieve the study's goal and fill the gap in the current theories, as follow:

Table 5.40: The hypothesis decision.

Model	Item	Decision
Model1	H1: IT capabilities have a positive effect on organizational intelligence.	Supported
Model2a	H2a: organizational intelligence has a positive effect on exploiting market opportunities.	Supported
Model2b	H2b: organizational intelligence has a positive effect on neutralizing threats.	Supported
Model3a1	H3a1: IT infrastructure have a positive effect on neutralizing threats.	Supported
Model3a2	H3a2: IT business spanning have a positive effect on neutralizing threats.	Not Supported
Model3a3	H3a3: IT proactive stance have a positive effect on neutralizing threats.	Supported
Model3b1	H3b1: IT infrastructure have a positive effect on neutralizing threats.	Supported
Model3b2	H3b2: IT business spanning have a positive effect on neutralizing threats.	Supported
Model3b3	H3b3: IT proactive stance have a positive effect on neutralizing threats.	Supported
Model4a	H4a: IT capabilities and organizational intelligence have a positive effect on exploiting market opportunities.	*Supported
Model4b	H4b: IT capabilities and organizational intelligence have a positive effect on neutralizing threats.	*Supported

*Supported the main question that the organizational intelligence play a mediating role between IT capabilities and competitive advantage.

This study aims to firstly, simplify the overall theoretical framework for the influence of IT capabilities on the competitive advantage. Secondly, to examine the mediating role of organizational intelligence among companies in Jordan. Literature, shed light on that the organizations might enhance the strategies by their local suppliers, employees, and those investors with high experienced to deal with unpredictable or predictable activities (Ismail & Al-Assa'ad, 2020). Subsequently, researchers developed a strategic vision of IT that looks to hold a new skill (Massachusetts & No, 2002).

In the present study, the IT capabilities show an obvious effect in all dimensions of organizational intelligence: strategic vision, appetite for change, shared fate, alignment & congruence, heart, knowledge deployment, and performance pressure. Thus, the present study appeals attention to the significance of IT infrastructure. Researchers represent the technological evolution improvements among communication and computers that should be accompanied through development in the strategic vision for better significant elements of organizational intelligence. Those outcomes are centered on a smart program that supports the IT infrastructure and offers common features; physical components, software, networks, social skills, and databases. However, how organizations anticipate used the IT resources to produce new business chances was clarified by a proactive stance.

The present study appeals to attention for the significance of the proactive stance that signifies the technological growth improvements in computers and

communications. However, the proactive stance must be accompanied by growth in organizational agility (Lu & Ramamurthy, 2011). Accordingly, to develop a good strategic vision, IT looks for holding a new technology. These results are contracting the results of other studies (Reddy, 2006; Weill et al. 2002; Ravarini, 2010). Evidence provided by Ismail & Al-Assa'ad (2020), supported that organizations that enhanced the strategies by the suppliers, employees, and further stakeholders who can commerce with predictable and unpredictable activities. Similarly, they are more able to improve their IT as it is the most critical issue concerning improving organizational agility.

Limited studies previously focused on all parts of organizational intelligence in competitive advantage strategies (Azma et al., 2008; Che et al., 2015). Moreover, those outcomes contract with conclusions developed by other studies Hadj et al. (2020) claimed that an increase in the competitive improvement developed the probabilities of companies to acquire a planned vision and achievement by a regular structural strategy. Constant with the present study, the organizational-intelligence has an obvious effect on the competitive advantage features such as: neutralizing menace strategies and investing market chances. These outcomes can be described by the readiness of the companies to inform their competencies and reach a competitive advantage, emphasizing the vital to funding planned vision as a foundation of competitive advantages in the dynamic business workplace situation.

Specifically, the strategic vision has a more significant influence on competitive advantage. These results indicate the willingness of the companies to update

their capabilities and reach a competitive advantage; these findings are in contract with Rehman et al.'s (2018) study. They highlighted that is imperious to supporting planned image as a foundation of competitive advantage in a dynamic corporate workplace atmosphere is not apparent. Moreover, similar agreement by the findings that offered of Hadj et al. (2020), that claimed improve the competitive-advantage developed the chances of the company to acquire a planned vision to develop achievement by a regular of structural strategies. Also, Tu, et al. (2019) proved that there is an association between cultural intelligence and achieving competitive advantage sustainability.

A relationship was found in manufacturing firms' IT capabilities and improving the organizational performance to be competitive by a previous study (Chu et al., 2019). In the competitive advantage, a vital effect of using them holds more than one competitive capability than competitors in the organization which developing neutralizing threats and market opportunities (Hadj et al., 2020). Moreover, some studies could not detect any relationship between the competitive advantages, IT capabilities, and business performance (Chae et al. 2014). The study explains that the IT capabilities like organization and active stance impact on both the neutralizing menace and investing market chance. Also, they could not confirm a positive impact on the IT business expansion. Furthermore, a vital effect of using them on the competitive advantage and reaching the competitive advantage means that the organizations hold more than one competitive capability compared to the competitors by investing market chance will decreasing overall cost and neutralizing the menace (Hadi et al. 2020).

These findings are linked to a shortage of pass-on of business expansion to investment market changes due to the lack of professional managers. Whereas the role of decision-makers in e-commerce companies is to initiate the policies and principles for their workers to solve the structural uncertainty of intrinsic value, enabling the adaptation of personal energies and linking them to the daily decision that enhances market edge and is good at neutralizing attacks strategies and utilizing investment opportunities.

The access of novel competitors rapidly and unexpectedly exposed a threat to organizations in the business workplace environment. Literature recommended conclusion a solution that falling these conflicts and threats through refining well thoughtful of the gap in competitive advantage and IT-capabilities as [Lu & Ramamurthy, (2011); Wong & Yung, (2005); Balouei & Ghasemian, (2014); Grover et al., (2008); Chu et al., (2019)]. Therefore, no literature has revealed a relationship between organizational intelligence with IT capabilities incorporate as a mediator.

This relation gives the impression in refining the competitive advantage, particularly in e-commerce companies, resulted in improving the ability to respond to changes in the workplace environment. In addition, this assumption appeals consideration to resolve the inconsistencies in IT with the variations in the workplace conditions. According to the findings of the study, IT capabilities appear to be inextricably connected to competitive advantage via organizational intelligence among Jordanian e-commerce businesses. The

indicator indicated by shining a light on IT infrastructure and their capacity to publish, gather, acquire, and recycle IT resources to maintain competitive advantage tactics.

The capability to answer the changes among workplace atmosphere, the ability of IT is serious for the institutions to reach firms significance and sustain a competitive advantage via a mediator between them which is the organizational intelligence. These results are in parallel with prior research of Lu & Ramamurthy, (2011); Wong &Yung (2005); Srivastava et al. (2013). Also, Balouei and Ghasemian (2014) concerning the importance of IT for competitive advantage. Moreover, the study hypothesis appeals consideration to the inconsistencies among the IT capability and the variations in the workplace situation. On the other hand, the entry of new competitors in a fast and surprising manner through developing smart organization face contradictions and can still sustain in the business environment (Tan et al. 2008; Lu & Ramamurthy, 2011). The results support the hypothesis and that IT capability which are positively linked with competitive advantage through organizational intelligence.

This study decided that IT capabilities enhance organizational intelligence, and the two jointly have a positive effect on competitive advantage. Limited research shed light on the role of organizational intelligence on competitive-advantage strategy by Hadj, et al. (2020). The measurement of IT capabilities and the three dimensions includes: Business expand Infrastructure, and active attitude was exemplified. The research results supported the notion that IT

capabilities enable enhancing neutralizing menace and investing market chances by consuming organizational intelligence as a mediator. The present study findings presented that IT capabilities are central to fulfill a competitive advantage and the IT capabilities could expression a better resolution to the anonymous of the reverse consequence of IT capabilities in the competitive advantage. On the other hand, extra organizational intelligence hints to improved competitive advantage and improve IT capabilities. At the company level, the Companies must continuously nurture and develop excellent IT capabilities to manage and empower the IT resources which improve organizational intelligence.

The proactive stance represents the ability of the companies to search for IT clarifications with novelties and find a new method to improve IT capabilities via developed companies' image. Thus, that means improving a strategic visualization for IT which seeks to hold novel technology which contributes to emerging and reinforcement IT infrastructure which is the exciting need to change as a smart organization. This symbolizes companies' huge potential to change the internal work environment while also hastening exterior work environment advancements by changing the organizational culture for promoting procedures to include brains to face difficulties and explore new opportunities. Whereas business spanning restores the company's management's ability to generate innovative ideas and utilize properties to sustain IT capabilities, this extends the company's in accepting a better vision for the advanced IT strategy and IT business integration and strategic planning.

5.2 Limitation

One geographical location was used for analyzing the data from all employees of e-commerce companies. Hence, the sample size and design constraints were employed. While more data may have produced more generalizable conclusions, the researchers believe the work has contributed to science. The notion of organizational intelligence serving as a bridge between IT capabilities and competitive advantage was endorsed. Furthermore, the reality of the Covid-19 epidemic has been restricted to the research's conclusions due to company closures in the geographical region where the study was done.

5.3 Future research

Overall, this study may be beneficial to e-commerce companies for both researchers and professionals. For the business environment, the organizational intelligence and IT capabilities could create a healthy and safe workplace, enhancing the new IT in the business environment, also it has a strong relationship on competitive advantage strategies through restructuring e-commerce companies of were faced of the competitiveness strategies in a good manner.

The role of organizational intelligence as a mediator helps the IT infrastructure to achieve good results through the dissemination of knowledge among the employees in the organization, which helps to reduce error and learning through the information stored in the database, which achieves the workflow safely and appropriately.

The researchers suggest checking the implicit trends of each of the study dimensions to solve the problems facing information technology and competitive advantage strategies across companies in various sectors to ensure the optimal strategy to bridge the gap between information technology and competitive strategies.

It is important to understand the ability and the capacity constructing those mastery companies to assess achievement, the capacity of the existing capabilities, and encouraging modern capabilities such as organizational procedure or routines can facilitate the capability of individuals with various skills and positions, innovation to do a certain mission. So far, they could be destructing their efforts to do a different duty. In addition, the researchers suggest for future research to define the purpose measures used in conjunction with the nature of IT investment which noted above to clarify the role of IT investment, identify its reverse effects on competitive advantage, and triangulate the findings of this study.

Planning for impact studies that investigate several sorts of techniques to promote competitive advantage is necessary. As a result, the authors propose performing studies in various firms and situations. Comparing intellectual, cultural views, and differences across organizations is especially important in industrialized nations with substantial technological progress. Finally, future

studies should investigate combining qualitative and quantitative research approaches to improve research findings.

5.4 Implications

5.4.1 Academic perspective

This study is designed to explore a different system for the sector of e-commerce organization among the common literature. In addition, the connection between IT capabilities with various organizational results has already been examined widely in different ways.

The findings of this study addressed the importance of the significance of IT infrastructure, IT capabilities have an evident effect on organizational intelligence. In addition, it showed that technological progress can represent various fields as advancements in computers, communication, and organizational intelligence.

Furthermore, IT capabilities have developing strategic visions to hold and create new technology. Organizational intelligence, as a mediator, may boost IT capabilities in regulating and directing competitive advantage tactics to accomplish important results in exploiting market opportunities and mitigating risks.

As a result, it must carefully and accurately monitor the nature and exploitation of identified IT capabilities by providing capabilities to enable competitive

advantage strategies by combining indicators of organizational intelligence, such as the desire for change, knowledge dissemination, common destiny, strategic vision, heart, compatibility, compatibility, and performance pressure.

5.4.2 From a practical perspective

This study showed that if e-commerce companies are adopted, can arrive at ongoing steps to help the individuals of companies knowing and understanding their tasks. Besides, enhance them to a deep understanding of the contradictions of IT and competitive advantage (e.g., Lu & Ramamurthy, 2011).

The procedure of the organization can facilitate the workers with a proactive stance and various skills to fulfill a particular task. Yet, they can obstruct their efforts to realize a different task. Organizations should pay interest to their managers by put vital policies, promoting their skills, and culture to improve their knowledge (Neirotti & Raguseo, 2017). Moreover, increase competitive advantage, influence the personnel intelligence in companies, and encourage IT Infrastructure (Fink & Neumann, 2007).

For example, companies could use alternative and innovative mechanisms involving; supporting capabilities, merging data, and the patches providing by a vendor in undertaking systems to support organizational intelligence. Instead, they may use an additional flexible construction. Furthermore, the organizations must develop IT capabilities and constantly nurture at the

organization level to empower and manage the IT resources through the organizational-intelligence and encouraging competitive advantage strategies.

5.5 Conclusion

This study aimed to examine organizational intelligence's mediating role, and explain a comprehensive theoretical framework of study IT capabilities' impact on competitive advantage. This study specified that IT capabilities promote organizational intelligence and both of them have a favorable effect on competitive advantage.

There were previous researchers examined the role of organizational intelligence on competitive advantage strategy (e.g., Hadj et al., 2020). The measurement of IT capabilities and its three indicators; Proactive stance, Business spanning, and Infrastructure that were explained to impact on competitive advantage strategies (i.e., exploiting neutralizing threats and market opportunities) through using organizational intelligence as a mediator.

The introduction of the mediator variable led to solving the weakness of the relationship between IT business spanning capabilities and exploitation of market opportunities, and the intermediate variable also contributed to improving the degree of influence between IT capabilities on competitive advantage strategies for both indicators (neutralizing threats and exploiting market opportunities), and also contributed to filling the previous studies gap that proved the existence of contradictions in exploiting IT-capabilities on competitive advantage strategies (i.e., neutralizing threats and exploiting

market opportunities and) for lack of understanding of the volatile environment that is difficult to predict and consequently the failure of information technology to use effectively to avoid threats and lack of exploiting market opportunities, which led to the failure and closure of some companies which not keeping up with the challenges of the environment business in the target markets.

The research results supported the notion that IT capabilities enable enhancing competitive advantage strategies by using organizational intelligence as an indicator. The research findings presented that IT capabilities could point a good resolution to the ambiguity of the adverse effect of IT capabilities on competitive advantage and that IT capabilities are basic to fulfill a competitive advantage. Conversely, more organizational intelligence indicates to good competitive advantage and improves IT capabilities also. Organizations require continuously nurture and evolve the excellence of IT capabilities at the firm level to empower and manage their IT resources which increase organizational intelligence. The researcher hopes that this study extends the further discussion, enhances the literature, and provides a comprehensive understanding of the contradictions and dynamics on the relations among organizational intelligence, competitive advantage, and IT capabilities.

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APPENDIX

APPENDIX

Dear Participant,

Please note that your participation in the study is voluntary. Your identity will not be revealed in any case to third parties.

I am a PhD student at Near East University in the Graduate School of Social Sciences, specializing in Business Administration in Northern Cyprus, this questionnaire is part of a Ph.D. thesis study and it aims to measure whether "**Understanding the link between IT capabilities, organizational intelligence, and competitive advantage".** To accomplish this purpose, you have been selected to participate in this scholarly research.

The questionnaire consists of four parts: Part 1 is demographical information, part 2 measures information technology capabilities, part 3 measures organizational intelligence and part 4 measures competitive advantage. Please answer as honestly as possible and it is important that you respond to all of the statements. The information collected will be used for research purposes only. Thank you for your time.

In case you have any questions or concerns, please contact me using the information below:

Fawwaz Awamleh

Fawwaz.awamleh@neu.edu.tr

Part One: Demographical Information

1) Gender

1. ☐ Male
2. ☐ Female

2) How many full-time employees are in your company?

1. ☐ below 20 employees
2. ☐ 20 - 50 employees
3. ☐ 50 -100 employee
4. ☐ Over 100 employees

3) How long have your organization been in business?

1. ☐ Below 5 Years
2. ☐ 5 -10 Years
3. ☐ 11-20 Year
4. ☐ Over 20 Years

4) The Long consumed E-commerce company products

1. ☐ Less than 5
2. ☐ 5 - 10 Years
3. ☐ 11-20 Years
4. ☐ Over 20 Years

5) Status of your Organization

1. ☐ Public Limited Company
2. ☐ Private Limited Company
3. ☐ Government Institution
4. ☐ Sole/ Private Use

6) Position in the Organization

1. ☐ Top Management
2. ☐ Middle Management
3. ☐ Supervisor
4. ☐ Managerial Employee

Kindly indicate your extent of agreement or disagreement with the following statements by ticking (O) where appropriate.

Part Two: Information Technology Capabilities

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
لا أوافق بشدة	لا أوافق	محايد	أوافق	أوافق بشدة
1	2	3	4	5

Infrastructure البنية التحتية					
INF1: Data management services and architectures are available (as; databases, data warehousing, accessibility, data availability, Storage, sharing etc.) توفر الشركة خدمات إدارة البيانات (قواعد البيانات، مخازن البيانات، توفر البيانات سهولة الوصول إلى البيانات، تخزين، مشاركة) لكافة العاملين	1	2	3	4	5
INF2: Network communication services are available (as; reliability, connectivity, availability, WAN, LAN, etc.) توفر الشركة خدمات شبكات الاتصالات (الاتصال، شبكات الاتصال الداخلية، شبكات الاتصال الخارجية)	1	2	3	4	5
INF3: Application portfolio and service availability and use (ERP, Emerging Technologies, ASP, reusable software modules-components, etc.) توفر الشركة محفظة من التطبيقات (نظم تخطيط الموارد، صفحات الخادم النشطة، وحدات البرمجيات القابلة لاستخدام التكنولوجيا الجديدة)	1	2	3	4	5
INF4: Availability and use of IT facility operations-services (servers, performance monitors, large-scale processors, and so on). توفر الشركة تكنولوجيا مساندة للعمليات (خوادم، معالجة عالية المستوى، مراقبة الأداء)	1	2	3	4	5
***Business Spanning* تمدد الاعمال**					
BUS1: The company has been striving to provide a clear image of how IT contributes value to the business. تتوفر لدى الشركة رؤية واضحة كيف تساهم تكنولوجيا المعلومات في تحقيق قيمة للأعمال	1	2	3	4	5
BUS2: The organization combines corporate strategic planning with IT planning. توائم الشركة بين التخطيط الاستراتيجي للأعمال والتخطيط لتكنولوجيا المعلومات	1	2	3	4	5

BUS3: The company's capacity to comprehend the value of IT investments is enabled by functional and general management. تقوم الشركة بعملية تخطيط فعالة لعمليات تكنولوجيا المعلومات	1	2	3	4	5
BUS4: The firm is building a strong IT plan and establishing an effective and flexible IT planning process. تقوم الشركة باستمرار بتطوير خطة متينة لتكنولوجيا معلومات	1	2	3	4	5
Proactive stance سبق البحث					
PRS1: The company is always up to date on new information technology advancements. تسعى الشركة دائما لمواكبة أحدث الابتكارات في مجال تكنولوجيا المعلومات	1	2	3	4	5
PRS2: The company is capable of, and will continue to experiment with, new information technology as needed. تتجه الشركة دائما لان يكون قادرة على اختبار التكنولوجيا الجديدة كلما كان ذلك ضروريا	1	2	3	4	5
PRS3: The firm has a culture that encourages employees to experiment with innovative ways to use technology. تمتلك الشركة مناخ يدعم تجربة الطرق الجديدة لاستخدام تكنولوجيا المعلومات	1	2	3	4	5
PRS4: The firm is always looking for innovative methods to improve the efficiency of its IT use. تميل الشركة دوما لإيجاد طرق لتعزيز فعالية استخدام تكنولوجيا المعلومات	1	2	3	4	5

Kindly indicate your extent of agreement or disagreement with the following statements by ticking (O) where appropriate.

Part Three: Organizational-intelligence

Strongly disagree لا أوافق بشدة	Disagree لا أوافق	Neither agree nor disagree محايد	Agree أوافق	Strongly agree أوافق بشدة
1	2	3	4	5

Strategic Vision الرؤية الاستراتيجية					
SV1: Throughout the company, there is an ongoing "strategic dialogue," which is a continuous debate about the business environment and how to address the difficulties it provides. يتوفر لدى الشركة حوار استراتيجي مستمر في كافة أجزاء المنظمة (محادثات مستمرة عن بيئة الأعمال وطرق مواجهة التحديات الحالية)	1	2	3	4	5
SV2: There is a rigorous, disciplined method for doing "environmental scanning," which is a systematic assessment of the corporate environment to identify significant trends, risks, and opportunities. يتوفر لدى الشركة عمليات رسمية موثقة للمسح البيئي (مراجعة منتظمة لبيئة الأعمال لتحديد الاتجاهات الرئيسية والفرص والتهديدات)	1	2	3	4	5
SV3: Every year, all executives and other important leaders rethink the organization's environment, direction, and major strategic goals. يتوفر لدى الشركة مراجعة سنوية لإستراتيجياتها (قيام المديرين بمراجعة بيئة الشركة والتوجهات والأولويات الأساسية)	1	2	3	4	5
SV4: As the center of the strategic idea, the executives established a credible "value proposition," i.e., the organization's promise to the market. يتم تقديم قيمة مقترحة معقولة تم صياغتها من قبل المديرين في الشركة (ما تقدمه الشركة للسوق كأساس للمفهوم الاستراتيجي)	1	2	3	4	5
SV5: There is a compelling and meaningful declaration of direction, such as a vision, purpose, or fundamental principles for driving the company. يتوفر جملة ذات معنى لتوجه الشركة (الرؤية، الرسالة، مبادئ أساسية لتوجه الشركة)	1	2	3	4	5
SV6: Managers frequently use the mission or vision statement for help in making critical choices and establishing major objectives. يستخدم المديرين رسالة الشركة بشكل مستمر في توجيه اتخاذ القرارات الرئيسية	1	2	3	4	5

SV7: The company has a robust framework in place for identifying, training, and elevating future leaders and strategic thinkers. تمتلك الشركة عمليات فعالة لتطوير قادتها في المستقبل	1	2	3	4	5
Shared Fate المصير المشترك					
SF1: Management communicates objectives, priorities, and operational outcomes to personnel. تشارك الإدارة الخطط والأولويات ونتائج التشغيل مع الموظفين	1	2	3	4	5
SF2: People at all levels comprehend the business's central concept and the broader strategic idea. يفهم الناس على جميع المستويات الفكرة الأساسية للعمل ويفهمون المفهوم الاستراتيجي العام	1	2	3	4	5
SF3: People from various departments assist one another, openly exchange information and ideas, and usually encourage one another in getting work done. يساعد الأشخاص في الأقسام المختلفة بعضهم البعض، ويتشاركون المعلومات والأفكار بحرية، ويدعمون بعضهم البعض بشكل عام في إنجاز العمل	1	2	3	4	5
SF4: Employees exhibit a sense of belonging as sense that they are a member of the organization rather than just employees. يعبر الموظفون عن شعورهم بالانتماء، أي الشعور بأنهم جزء من المنظمة وليسوا مجرد موظفين فيها	1	2	3	4	5
SF5: Employees show a sense of collaboration with management rather than alienation and resentment. يعبر الموظفون عن شعورهم بالشراكة مع الإدارة، بدلاً من الشعور بالغربة والعداء	1	2	3	4	5
SF6: Employees are optimistic about the organization's chances of success. يؤمن الموظفون بفرص نجاح المنظمة	1	2	3	4	5
SF7: Most employees regard their connection with the company as possibly long-term. يرى معظم الموظفين أن علاقتهم بالمنظمة قد تكون طويلة الأمد	1	2	3	4	5
Appetite for Change الرغبة في التغيير					
ACh1: services, Products, and modes of value delivery are always developing and adapting to the changing demands of the corporate environment. المنتجات والخدمات وأشكال تقديم القيمة تتطور باستمرار وتواكب المتطلبات المتغيرة لبيئة الأعمال	1	2	3	4	5

ACh2: Natural methods for encouraging innovation, including as tests with new ideas, new product development teams, and staff suggestion programs, are in place. الآليات الطبيعية المطبقة لتشجيع الابتكار، على سبيل المثال، التجارب مع الأفكار الجديدة، وفرق تطوير المنتجات الجديدة، وبرامج اقتراح الموظفين	1	2	3	4	5
ACh3: Staff are motivated to discover better ways to do their tasks. يتم تشجيع الموظفين على إيجاد طرق أفضل لأداء وظائفهم	1	2	3	4	5
ACh4: People at various levels are permitted to challenge the established method of doing things. سمح للناس على مختلف المستويات بالتشكيك في الطريقة المقبولة للقيام بالأشياء	1	2	3	4	5
ACh5: Bureaucratic 'underbrush' (rules for the sake of regulations, obsolete policies and processes) is maintained to a bare minimum. الاحتفاظ "بالقواعد" البيروقراطية (على سبيل المثال، القواعد من أجل القواعد والسياسات والإجراءات التي عفا عليها الزمن) عند الحد الأدنى	1	2	3	4	5
ACh6: The enterprise's executives are prepared to confess their errors and abandon foolish projects that aren't succeeding. قادة المشروع على استعداد للاعتراف بأخطائهم وإلغاء المشاريع المضللة التي لا تعمل	1	2	3	4	5
ACh7: Management fosters an environment of openness to and acceptance of change, as well as the ability to think about the business in novel and creative ways. تعزز الإدارة جوًا من الانفتاح وقبول التغيير والتفكير في الأعمال بطرق جديدة ومبتكرة	1	2	3	4	5
Heart القلب					
H1: Responsibilities of both employees the organization's overall quality of work life as excellent. يرى الموظفون أن الجودة الشاملة للحياة العملية في المنظمة عالية	1	2	3	4	5
H2: workers think that management is looking out for their best interests. يعتقد الموظفون أن الإدارة لديها مصالحهم الفضلى في القلب	1	2	3	4	5
H3: People work pride in being a part of the business. يعبر الموظفون عن شعور بالفخر بالانتماء إلى المنظمة	1	2	3	4	5

H4: Workers that are ready to go above and beyond to assist the business thrive and accomplish its objectives. الموظفون الراغبون في بذل جهد إضافي لمساعدة المنظمة على النجاح وتحقيق أهدافها	1	2	3	4	5
H5: Staff are optimistic about their future career possibilities with the company. يعبر الموظفون عن تفاؤلهم فيما يتعلق بفرصهم الوظيفية مع المنظمة	1	2	3	4	5
H6: Economy has undergone their work with vigour, zeal, and excitement. يتعامل المديرون مع وظائفهم بالطاقة والحماس والتفاؤل	1	2	3	4	5
H7: Managers serve as role models for workers in terms of dedication, excitement, energy, and optimism. نموذج المديرين للالتزام والطاقة والحماس والتفاؤل في نظر الموظفين	1	2	3	4	5
Alignment & Congruence* *الموائمة والتطابق					
AC1: The organization's overall structure that is appropriate for the company mission يتناسب الهيكل التنظيمي للشركة مع رسالتها	1	2	3	4	5
AC2: In light of the major corporate goals, policies, rules, and laws make sense. سياسات وقواعد إجراءات العمل منطقية في ضوء أولويات الشركة	1	2	3	4	5
AC3: workers performance and productivity are aided rather than hindered by business procedures. تساهم عمليات الأعمال في تسهيل زيادة الإنتاجية في الشركة	1	2	3	4	5
AC4: workers are better able to accomplish their tasks thanks to information systems and technologies. تساهم نظم المعلومات في تمكين الموظفين للقيام بأعمالهم بفعالية	1	2	3	4	5
AC5: staff may generate value for their customers thanks to information systems. تمكن نظم المعلومات العاملين من خلق قيمة للزبائن	1	2	3	4	5
AC6: Leadership roles were delegated as far down the structure as feasible. تقوم الشركة بتفويض المسؤوليات والصلاحيات للمستويات الإدارية الدنيا	1	2	3	4	5

AC7: Instead of inter-unit conflict, divisional and departmental missions are linked to enable collaboration and coordinated efforts. تتوافق رسائل الأقسام والوحدات الوظيفية لتسهيل الجهود التعاونية في الشركة	1	2	3	4	5
Knowledge Deployment تطبيق المعرفة					
KD1: There are natural 'cultural' mechanisms that allow individuals to share knowledge and transmit critical business information. هناك عمليات "ثقافية" طبيعية يشارك الناس من خلالها المعرفة ويتبادلون المعلومات التجارية المهمة	1	2	3	4	5
KD2: Managers appreciate knowledge, value and education as important resources and job abilities. يُظهر المديرون الاحترام والتقدير للمعرفة والتعليم كمصادر أساسية ومهارات العمل	1	2	3	4	5
KD3: Organizational barriers are "porous" to ideas and information, allowing individuals to share what they learn rather than "hoard" it. الحدود التنظيمية "يسهل اختراقها" للأفكار والمعلومات، مما يسمح للأشخاص بمشاركة ما تعلموه بدلاً من "اكتناز" المعلومات	1	2	3	4	5
KD4: The information systems enable the widespread availability and free flow of relevant operational data. تدعم أنظمة المعلومات التوفر الواسع والتدفق الحر لمعلومات التشغيل المفيدة	1	2	3	4	5
KD5: managers, executives, and key personnel are always researching the newest business concepts, trends, and research findings. التنفيذيون والمديرون والموظفون الرئيسيون يدرسون باستمرار أحدث أفكار واتجاهات ونتائج البحث المتعلقة بالعمل	1	2	3	4	5
KD6: Management implemented initiatives to assist all workers' ongoing learning and career growth. برامج وضعتها الإدارة لدعم التعلم المستمر والتطوير الوظيفي لجميع الموظفين	1	2	3	4	5
KD7: Managers fully comprehend and appreciate the various individual skills, qualifications, and knowledge available from employees in their units يدرك المديرون تمامًا ويقدرون مختلف المهارات والمؤهلات والمعرفة الفردية المتاحة من الموظفين في وحداتهم	1	2	3	4	5
Performance Pressure ضغط الأداء					
PP1: workers at all levels understand their roles and duties, as well as the contributions that are expected of them. يفهم الموظفون على جميع المستويات بوضوح ما هي أدوارهم ومسؤولياتهم، وما هي المساهمات المتوقعة منهم	1	2	3	4	5

PP2: Executive's managers, and supervisors communicate the performance goals, targets, and expectations clearly and continually يقوم المديرون التنفيذيون والمشرفون بإبلاغ أهداف الأداء والأهداف والتوقعات بشكل واضح ومستمر	1	2	3	4	5
PP3: Rather than allowing unproductive workers to undercut the efforts of productive workers, supervisors act promptly and forcefully to resolve employee performance issues. يتصرف المشرفون بسرعة وحسم لحل مشاكل أداء الموظفين، بدلاً من السماح للعمال غير المنتجين بتقويض جهود العمال المنتجين	1	2	3	4	5
PP4: Senior and intermediate managers act to rehabilitate or remove failed managers and to require a high degree of management competence in all levels of leadership. يعمل كبار المديرين والمتوسطين على إعادة تأهيل المديرين الفاشلين أو إزالتهم، ويطلبون مستوى عاليًا من الكفاءة الإدارية في جميع المناصب القيادية	1	2	3	4	5
PP5: workers are given feedback on their performance and are recognized for their efforts. يتلقى الموظفون ملاحظات حول أدائهم والاعتراف بمساهماتهم	1	2	3	4	5
PP6: workers believe their labor adds to the enterprise's success. يشعر الموظفون أن عملهم يساهم في نجاح المؤسسة	1	2	3	4	5
PP7: workers think that their pay and professional advancement are fairly decided by their job performance. يعتقد الموظفون أن تعويضاتهم ونجاحاتهم المهنية تتحدد بشكل عادل من خلال أدائهم الوظيفي	1	2	3	4	5

Kindly indicate your extent of agreement or disagreement with the following statements by ticking (O) where appropriate.

Part Four: Competitive Advantage

Strongly disagree لا أوافق بشدة	Disagree لا أوافق	nor disagree محايد	Agree أوافق	Strongly agree أوافق بشدة
1	2	3	4	5

Exploiting market opportunities **استغلال فرص السوق**					
CS1: E-commerce firm taking advantage of all market chance استغلال شركة التجارة الإلكترونية لجميع فرص السوق	1	2	3	4	5
CS2: E-commerce firm full exploitation of the market chance استغلال شركة التجارة الإلكترونية الكامل لفرص السوق	1	2	3	4	5
CS3: E-commerce companies invest in market chance more effectively than competitors. استغلال شركة التجارة الإلكترونية لفرص السوق بشكل أفضل من المنافسين	1	2	3	4	5
Neutralizing threats ***تجنب التهديدات***					
DS1: All market threats are being neutralized by an e-commerce business. تحييد شركة التجارة الإلكترونية لجميع تهديدات السوق	1	2	3	4	5
DS2: The market threat has been completely neutralized by an e-commerce business. شركة التجارة الإلكترونية تحييد كامل لتهديدات السوق	1	2	3	4	5
DS3: E-commerce firms outperform competitors in terms of market threat neutralization. شركة التجارة الإلكترونية تحييد تهديدات السوق أفضل من المنافسين	1	2	3	4	5

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ETHICS COMMITTEE APPROVAL

YAKIN DOĞU ÜNİVERSİTESİ

BİLİMSEL ARAŞTIRMALAR ETİK KURULU

24.09.2020

Dear Fawwaz Tawfiq Rateb Awamleh

Your application titled **"The Relationship between Information Technology capabilities, Organizational Intelligence, and Competitive Advantage"** with the application number YDÜ/SB/2020/787 has been evaluated by the Scientific Research Ethics Committee and granted approval. You can start your research on the condition that you will abide by the information provided in your application form.

Assoc. Prof. Dr. Direnç Kanol

Rapporteur of the Scientific Research Ethics Committee

Direnç Kanol