NEAR EAST UNIVERSITY
INSTITUTE OF GRADUATE STUDIES
INTERNATIONAL BUSINESS PROGRAM

THE EFFECT OF STRATEGIC MANAGEMENT FOR IMPLEMENTING E-COMMERCE ON PROFITABILITY: AN APPLIED STUDY ON TECHNOLOGY COMPANIES ADOPTING E-COMMERCE IN TRIPOLI, LIBYA

TAHA KABER

MASTER'S THESIS

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THESIS SUPERVISOR
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ACCEPTANCE/APPROVAL

We as the jury members certify the '**The Effect of Strategic Management for Implementing E-commerce on Profitability: An Applied Study on Technology Companies Adopting E-commerce in Tripoli, Libya'** prepared by the Taha Kaber defended on 29/1/2021 has been found satisfactory for the award of degree of Master

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DECLARATION

I am hereby declare that this dissertation entitled ‘THE EFFECT OF STRATEGIC MANAGEMENT FOR IMPLEMENTING E-COMMERCE ON PROFITABILITY: AN APPLIED STUDY ON TECHNOLOGY COMPANIES ADOPTING E-COMMERCE IN TRIPOLI, LIBYA’ has been prepared myself under the guidance and supervision of ‘Assist. Prof. Dr. Mohammad Maaitah’ in partial fulfillment 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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DEDICATION

This thesis is dedicated to my parents, brothers and sisters. I hope that this achievement will complete the dreams that you had for me all those many years ago when you chose to give me the best education you could.

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I am over helmed in all humbleness and gratefulness to acknowledge my depth to all those who have helped me to put these ideas, well above the level of simplicity and into something concrete.

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Thank you all,

Taha

ABSTRACT

THE EFFECT OF STRATEGIC MANAGEMENT FOR IMPLEMENTING E-COMMERCE ON PROFITABILITY: AN APPLIED STUDY ON TECHNOLOGY COMPANIES ADOPTING E-COMMERCE IN TRIPOLI, LIBYA

This study examined the effect of strategic management, for implementing e-commerce, on the profitability of technology companies adopting e-commerce in Tripoli, Libya. Strategic management was regarded as the independent variable, e-commerce as the mediating variable and profitability as the dependent variable. An applied study on 13 technology companies has been conducted in order to reach the aims of the study. The structured questionnaire consisted of 33 items of measure which was distributed to 407 employees of these companies to collect primary data sources. Data analysis was made through the Statistical Package of Social Science (SPSS v.25) and Process Macro (v. 3.5). Findings indicated a significant positive relationship between strategic management and profitability. A significant positive association was also found between the variables of e-commerce (electronic operations and electronic logistics) and profitability. Results also showed a significant indirect effect of strategic management on profitability through electronic operations and electronic logistics as mediating variables.

Keywords: *strategic management, e-commerce, electronic operations, electronic logistics, profitability*

ÖZ

THE EFFECT OF STRATEGIC MANAGEMENT FOR IMPLEMENTING E-COMMERCE ON PROFITABILITY: AN APPLIED STUDY ON TECHNOLOGY COMPANIES ADOPTING E-COMMERCE IN TRIPOLI, LIBYA

Bu çalışmada e-ticaretin uygulanmasında stratejik yönetimin Libya'nın Trablus şehrinde e-ticareti benimseyen teknoloji şirketlerinin karlılığı üzerindeki etkisi incelenmiştir. Çalışmanın amaçlarına ulaşmak için 13 teknoloji şirketi üzerinde uygulamalı bir çalışma yapılmıştır. Yapılandırılmış anket, birincil veri kaynaklarını toplamak amacıyla bu şirketlerin 407 çalışanına dağıtılan 33 ölçü maddesinden oluşmuştur. Veri analizi, Statistical Package of Social Science (SPSS v.25) ve Process Macro (v. 3.5) aracılığıyla yapılmıştır. Bulgular, stratejik yönetim ile karlılık arasında önemli bir pozitif ilişkiye işaret etmektedir. E-ticaret (elektronik işlemler ve elektronik lojistik) ve karlılık değişkenleri arasında da önemli bir pozitif ilişki bulundu. Sonuçlar ayrıca stratejik yönetimin, aracı değişkenler olarak elektronik operasyonlar ve elektronik lojistik yoluyla karlılık üzerinde önemli bir dolaylı etkisi olduğunu göstermiştir.

Anahtar Kelimeler: Stratejik yönetim, e-ticaret, elektronik işlemler, elektronik lojistik, Karlılık.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1
INTRODUCTION

1.1 Introduction

This chapter focuses on providing a background to the research topic, as well as presenting the study problem that the researcher is trying to solve and the purpose of the study. This chapter also deals with presenting the questions of the study that are supposed to be answered and tested, then deals with presenting the hypotheses on which the study is based. Moreover, a representation of the model of the study will be provided to explain the relationship between the independent and dependent variables. In addition, the significance of the study to the interested parties will be highlighted. In conclusion, the chapter presents the limitations of the study from the researcher's perspective.

1.2 Research Background

Strategic management plays a significant role in the organizations where the right decisions and plans determine the well-being of an organization in terms of matching its objectives and keep the track with others in markets based on competitiveness. Considering strategic management as a mechanism in organizations where radical decisions are made to face the changes in the surrounding environments by determining the internal and external forces affecting the long-term performance, evaluate alternative strategies to ensure that the organization is relevantly operating towards its objectives and implement the most efficient and effective strategies that correspond with the organization’s capabilities (Guven, 2020). Adopting electronic commerce and its applications in an organization requires strategic management and

planning in order to conduct detailed investigations on the flexibility and technological growth of the market. As we mentioned previously, the role of these investigations is to evaluate opportunities and threats accompanied with the adoption of e-commerce, knowing that organizations are affected by external and internal environments which in turn have an impact on the decisions made by strategic managers (Pant, 2019).

Modern Business organizations are seeking to take advantage of the services provided by the World Wide Web (Apăvăloaie, 2014). The attribution of new business models can play a main role in the success of organizations. Confronting with the challenges of competitiveness and market globalization, e-commerce provides companies with benefits such as reducing the cost of operations, have access to a greater number of customers, larger geographical ranges and more customer relationships that result in a higher level of customer satisfaction, which is a key indicator for the reputation of a company (Lorca et al, 2019). The rapid growth of internet users and its application made the internet an important interface for business, as it allows business sectors to conduct e-commerce between different parties, also to own a strategic weapon through which companies can enter the global markets to their most extreme boundaries (Fauska et al, 2013). The intensity of global competitiveness led to a set of changes in organization's business strategies, in addition to the pressure made by the information system on companies to achieve customer satisfaction (Hennig-Thurau & Hansen, 2013). The challenge for managers is to ensure that the priorities in the field of information system and e-commerce are consistent with the organization's business strategies.

The emergence of e-commerce concept has led to the creation of new plans and strategies in various forms of business fields, creating business models on the internet that did not exist in the past, which were exploited by companies that operate electronically intending to obtain superiority and efficiency in performing their business, and attracting the largest number of customers by harnessing new technologies to raise the company's competitive level, thus increase its market share (Bi et al., 2017). E-commerce eliminated human interference and reduced interactions with the

brokers and representatives of sales and services. Accordingly, companies should maintain flexibility in their operations and have an effective strategic planning for their activities to gain the capabilities in order to face their surrounded environment challenges (Rajnoha et al., 2019). Companies tend to operate electronically, without prior strategic management to shift towards e-commerce, some companies have succeeded in their business on the early stages of the spread of e-commerce, but most of the companies that have adopted e-commerce in their business have failed due to the poor planning and lack of effective strategies (Rashidirad et al., 2017). Saban (2015) pointed out in his research that before engaging in e-commerce, the most important factor that must be focused on is to focus on formulating a vision and strategy, which contributes to (23%) and building business plans contributes to (9%). Discovering new ideas in e-commerce is a very important matter and the implementation is what determines the success or failure of a business on the internet because every business needs prior strategic management (Saban, 2015).

1.3 Problem Statement

Strategic management and e-commerce subjects have always been interesting to researchers especially given the new stages emerging as a result of technological expansion. The topic of strategic management adopting e-commerce is one which has drawn attention from researchers as it has been found to bring both advantages and disadvantages. Researchers have originated models and steps that must be monitored in strategic management adopting e-commerce as some companies have suffered major setbacks by being associated with certain strategies. There is a need to find out if these models can still be applied in today's fluctuating environment where technology is continuously changing things (Ahmad et al., 2019). However, most of the previous researches concentrated on traditional operating methods. There is a need for research integrating traditional business methods as well as that built on e-commerce platforms as the internet platforms also bring risks with them. This study, therefore, seeks to

find the effect of strategic management in implementing e-commerce on profitability, in technology companies in Tripoli, Libya.

1.4 Purpose of the Study

The study aims to show the effect of strategic management for adopting e-commerce represented by electronic operations and electronic logistics operations in increasing profitability for technology companies in Tripoli, Libya, the variables which are likely to create a commercial value for the companies adopting e-commerce. Based on the above, the study problem can be crystallized more clearly in an attempt to answer the research questions.

1.5 Research Questions

1- What is the effect of strategic management on profitability, in technology companies adopting e-commerce?
2- Is there an effect of strategic management on electronic operations, in technology companies adopting e-commerce?
3- Do electronic operations for technology companies adopting e-commerce affect profitability?
4- What is the impact of strategic management on electronic logistics, in technology companies adopting e-commerce?
5- How far is the effect of electronic logistics in technology companies adopting e-commerce on profitability?
6- Does strategic management affect profitability via e-commerce and its variables (electronic operations, electronic logistics) in technology companies adopting e-commerce?
7- Which variable of e-commerce, electronic operations or electronic logistics has a larger effect as a mediator between strategic management and profitability?

1.6 The Study Model

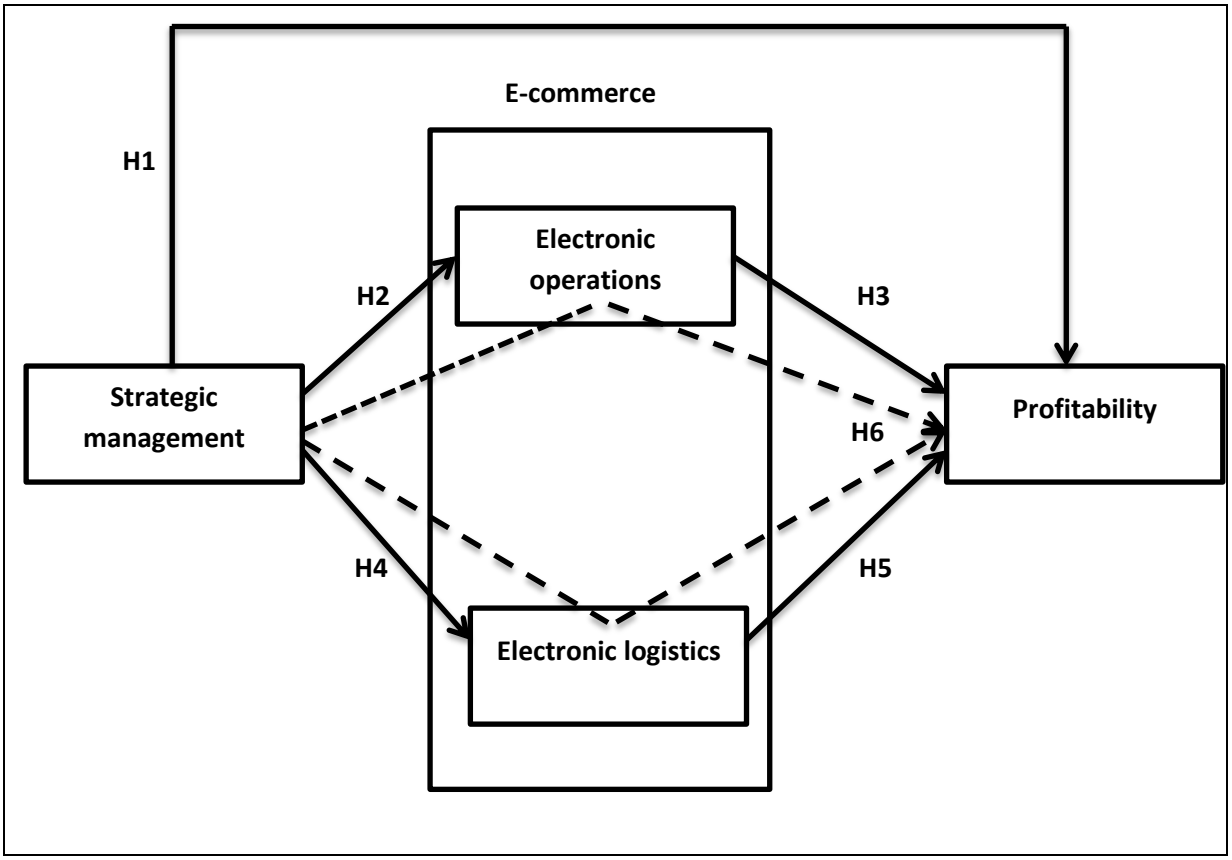


Figure 1.1: The study model

Source: Prepared by the researcher

The table above shows the study model with strategic management as an independent variable, e-commerce (electronic operations and electronic logistics) as mediating variables, and profitability as the dependent variable.

1.7 Hypotheses

The research hypotheses are hereby stated to give more emphasis on the purpose of the study. The researcher will attempt to statically support the listed hypothesis later in chapter four.

Table 1.1: Hypotheses

H1	Strategic management has a significant effect on profitability.
H2	Strategic management has a significant effect on electronic operations.
H3	Electronic operations have a significant effect on profitability.
H4	Strategic management has a significant effect on electronic logistics.
H5	Electronic logistics have a significant effect on profitability
H6	Strategic management has a significant effect on profitability via e-commerce (electronic operations, electronic logistics) as mediating variables.

1.8 Significance of the Study

The importance of this study is highlighted by the fact that it is considering to one of the relatively rare and important issues, which is strategic management for implementing e-commerce and the factors that affect increasing profitability of operating for companies that intend to work electronically. The significance of the study can be summarized in the following points:

1- The topic of strategic management adopting e-commerce becomes an important approach for organizations due to the rise of awareness of the benefits of working electronically.

2- Explaining the importance of strategic management and planning by conducting internal and external analysis for the company's environment

to achieve a competitive advantage.

3- To demonstrate the impact of e-commerce adoption on profitability for technology companies.
4- This study is considered to be one of the few researches conducted in the field of strategic management for adopting e-commerce in the technology sector and thus can provide more data resources and recommendations for future studies.

1.9 Limitations

Due to time constraints, this study was only limited to the technology companies located in Tripoli city. In addition, the implementing of e-commerce in Libyan companies' system is still considered as a new move, therefore, only few academic and field studied have been conducted on this topic. Furthermore, there is a difficulty in obtaining the information and data necessary to conduct the study through the prepared questionnaire. An additional limitation faced the researcher is the time needed to monitor and follow-up with some of the companies' employees according to their availability to meet them and introduce them to the general objectives of the study in order to obtain the information required.

1.10 Outline of the study

This study is divided into five chapters which have been briefly summarized in the following outline:

- Chapter one: this chapter covers the background of the study, the study problem which the researcher aims to solve throughout the study, the purpose of the study which motivated the researcher to conduct this study, research questions which the researcher sought to answer, a representation of the study model which the study is built on, the listed hypothesis, the significance of the study and the limitations of the study.
- Chapter two: this chapter covers the theoretical framework of the study as well as the variables and main dimensions which was structured to

measure the variables. In addition, the chapter highlights the previous studies conducted by other researchers on similar topics.

- Chapter three: this chapter covers the methodology used to test the variables of the study. Starting from the research design, presenting the population and the sample of the study, the process of data collection, measurement method, data analyzing procedures and ethical considerations.
- Chapter four: this chapter covers data analyzing as well as the presentation of the findings. The chapter starts with demonstrating the response rate and then provides an overview of the reliability test conducted on the measurement instrument. The chapter also highlights the statistical analysis for the demographic data, each of the variables and explains the findings of the regression analysis made to determine the significance of the hypothesis. Finally, this chapter presents the path analysis to clarify the direct and indirect relationships between the variables.
- Chapter five: this chapter covers the discussion area where the researcher provided an overall review of the main findings of the study. This chapter also presents the answers to the questions which the researcher sought to answer by conducting this study, as well as the limitations faced the researcher and some recommendations for future studies.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter focuses on the theoretical framework of the main concepts of the study and the review of literature conducted by other researchers on relevant subjects and theories. This stage of the research helped the researcher to collect the necessary information to construct the conceptual framework and hypotheses for the research.

2.2 Strategic Management

There is no comprehensive definition of the concept of strategic management and its importance, rather, there are several definitions, as some are concerned with general goals, specified goals or finding alternatives, choosing the appropriate alternative, executing and evaluating the performance. According to Rothaermel (2016), the definitions varied

according to the 3 stages of strategic management including:

Figure 2.1: Model of the strategic management process

(Rothaermel, 2016)

2.2.1 Strategy formulation

Strategy formulation is interpreted as the process of transferring plans into actions which can be approached to solve the organization's challenges in short and long-term purposes (Bowen et al., 2020). The process of setting objectives in the organization, by evaluating the external and internal environments, set strategies to maintain a competitive advantage and reach its objectives (Köseoglu et al., 2020). The organization defines its long-term goals and objectives and allocates resources to achieve goals and objectives (Rothaermel, 2012). The organization's perception of the nature of the expected relationship with the external environment in the light of which determine the type of work that should be conducted in the long term and determine the extent to which the organization seeks to achieve its goals and objectives (Azhar et al., 2013). Setting plans for the organization and defining its long-term goals and choosing the appropriate style to implement the strategy (Alkhafaji, 2011). Those activities and plans developed by the organization in the long term to ensure achieving harmony between the organization, its mission and the environment surrounding it effectively and efficiently. (Padash & Ghatari, 2020)

2.2.2 Strategy implementation

Strategic management is responsible for designing steps and assigning tasks to coordinate with work units to achieve goals, it is the opposite of chaos that suggests the unplanned implication of actions, which lead to accomplishing a set of dispersed goals. Effectual strategies are continuous and systematic processes undertaken by managers in an organization (Brui, 2018). Strategic management according to Alkhafaji (2011), is an administrative process for establishing and maintaining the relationship between the sources and goals of the organization and rearranging activities in the correct manner that achieve growth and profits in the future. Wheelen et al. (2017) define strategic management implementation as making decisions that ensure the effective distribution of allocated resources.

2.2.3 Strategy evaluation

It represents the last stage in the strategic management model, which enables the organizations to identify the outcomes of implementing the selected strategy, and the related extent of success. The process of evaluation includes monitoring, correcting and improving the various activities within the organization; thus, it can identify potential problems that required to be fixed at the appropriate time (Hornungová, 2017). All levels managers depend on the outcome of information for corrective actions and problems solving. Based on Khashei et al. (2017), strategic evaluation is able to locate previous implemented strategies weaknesses which make it as a critical final process that determines the effectiveness of strategic plans.

2.2.4 The Roles and Responsibilities of Strategic Management

The tasks of strategic managers differ from other managers in the organization. Executive managers are usually responsible for business operations and deal with some specific aspects such as employees, sales, and financial aspects. On the other hand, strategic managers are responsible for maintaining a balance between current and future goals that can be achieved by making critical and effective decisions (Wheelen & Hunger, 2010).

Strategic management is concerned with encouraging and supporting the organization to achieve a competitive advantage to surpass other firms, limiting other companies from the acquisition of market share, enhancing the organization's competitiveness and supporting its value in front of its customers and investors (Shatilo, 2019). Hence, strategic management is keen to ensure that the following objectives are reached:

- Supporting the organization to create its internal environment; by implementing a set of amendments that include human resources, policies, organizational structure, procedures, and regulations; this fact contributes to enhancing its ability to interact with its external environment effectively and efficiently (Dovhan et al., 2011) .
- To contribute to making an important decision that affects the work environment; to increase the organization's market share, enhancing its competitiveness, maintaining customer satisfaction and achieving profits for its owners (Indris & Primiana, 2015).
- To set up priorities to formulate long-term goals, programs and policies, and identifying available resources according to these priorities.
- Supporting evaluation, coordination, and cooperation between all units in the organization, and ensuring that problems are discovered and corrected, and avoiding their recurrence in the future; by relying on appropriate standards that shape strategic goals (Gradinaru, 2018).
- Choosing an objective measurement that contributes to judging the quality of the department's capability and determining its ability to achieve the planned objectives. Management is considered unsuccessful when it fails to achieve objectives, regardless of other achievements in the organization (Harafonova, 2016).
- Monitor the market and the surrounding environment to obtain the best opportunities and profits that create financial returns and reduce the risk that may affect the enterprise (Cristiana & Anca, 2013).
- Obtaining information and data about the strengths and weaknesses of the organization.
- Motivating the participation of employees and workers by enhancing the role of teamwork, this contributes to encouraging them to follow to the

plans that they participated in preparing, discussing, and taking decisions, and this leads to enhancing their understanding of the performance evaluation process in the organization (Hill et al., 2014).

2.2.5 Strategic Management Levels

The levels of strategic management differ according to the different activities of the organizations. This variance requires the emergence of particular strategies that fit the diversity of activities undertaken by the organization (McGeee et al., 2019). It is possible to distinguish between the levels of strategic management, which can be summarized as:

2.2.5.1 Corporate-level

According to Li and Chen (2019), executive managers are considered to be at the same level as strategic managers where the vision for developing strategies across the organization must be available. Other significant roles are in defining the mission and goals of the organization, determining the actions, allocating the necessary resources between departments and implementing the strategies that have been approved.

2.2.5.2 Business-level

Strategic management at the operations levels seeks to transform the overall objectives of the organization to specific goals to gain competitive advantages for each unit of productivity (Seifzadeh & Rowe, 2019).

2.2.5.3 Functional-level

According to Sattar and Broitta (2013), department managers at this level are focusing on specific jobs such as accounting, finance, research and development and human resources. The strategic role at this level is less noticeable compared to the aforementioned two levels but remains important as this level provides the employees with the capability to implement strategies taken by the upper levels which in turns creates a state of integration between the different levels in the organization.

2.3 Electronic Commerce

E-commerce applications began in the ’70s of the last century with the initiation of electronic funds transfer, which made it possible to transfer money electronically from one place to another. The commencement of the extensive spread of e-commerce applications was in the year 1990, caused by the accession of the internet into business and the emergence of information technology that led to the growth of e-commerce applications (Elia et al., 2019).

E-commerce has been identified by many different definitions, but it is directed in one path, which is the process of selling, buying, exchange of goods, services and information through the internet, intranet, extranet, and other communication tools in the organization between customers, suppliers, and other business parties (Abed et al., 2015). E-commerce is no longer a difficult mechanism to achieve as it was in the middle of the last century. It has become an easy matter to reach due to the availability of infrastructure, technology and easy access to the internet for all people. Given that the internet is not preserved by anyone or any party, in developed countries such as Japan and the United States, electronic trade has become an essential requirement for conducting businesses (Shanshan & Lei, 2010). Researchers expect that e-commerce will be the prevailing feature in all societies in the upcoming years, which forces business organizations to optimize their operations and business methods. Al-Tit (2020) mentioned that consumer concerns about buying and selling electronically represent a serious threat to the possibility of implementing e-commerce. These concerns refer to the modest confidence of consumers in dealing electronically, the risks of confidentiality and security that make the consumer uncomfortable when dealing with electronic transactions.

A study was conducted in Turkey titled as “The case of Pandora bookstore in Turkey” (2008), examined the factors affecting the success of e-commerce, finding that one of the obstacles facing e-commerce in developing countries is the weakness in the following elements:

- *Connectivity*: Easy and cheap access to the internet.
- *Electronic leadership:* The quality and efficiency of companies among stakeholders.

- *Information security:* The level of confidence during the stages of processing and storage of information.
- *Human resource:* Availability of skilled labour.

Choshin, & Ghaffari (2017) indicated that the most critical factors to success when adopting e-commerce are the integration of virtual activities, effective strategies and proper marketing plans, also the integration of the infrastructure, including chains of communications, devices, servers, financial supporting and highly qualified and experienced users.

2.3.1 E-commerce models

Researchers classify e-commerce into a group of main categories according to the nature of the relationship between the seller and buyer. The following is an overview of these categories:

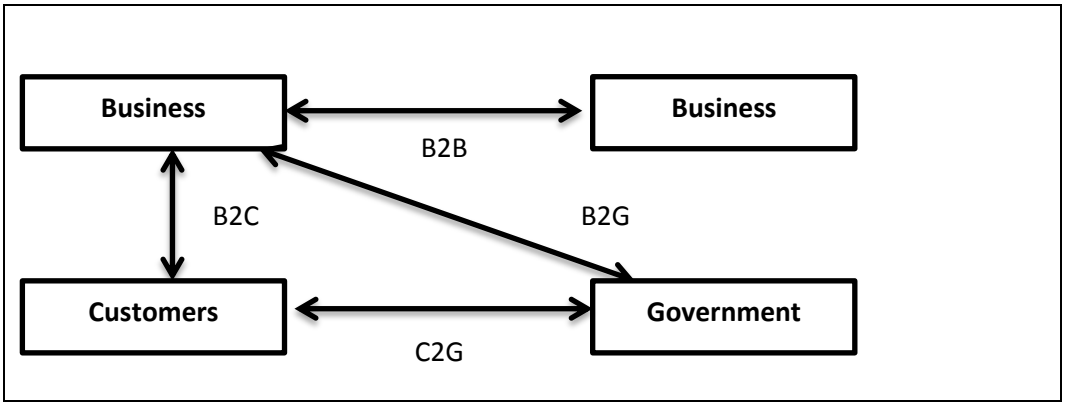


Figure 2.2: E-commerce models

(Gupta, 2014)

- *E-commerce between organizations and consumer (Business to Consumer, **B2C**):* This type refers to electronic transactions that occur between sellers, which in this case are organizations and buyers who are known as consumers. It is the most common category of e-commerce, this type happens for example when individual consumers access to an organization's website and for shopping by browsing the website that contains information or pictures about what the organizations provide such as products, prices, and payment methods. Next, the consumer

selects the desired products after comparison and evaluation, finally confirms the purchasing order (Elommal et al., 2019).

- *E-commerce between organizations (Business to Business **B2B**):* Refers to the transactions that occur between sellers (organizations) and buyers that are also organizations through the internet. Marketing scholars consider B2B as the most complete type of e-commerce because most organizations, whether sellers or buyers have websites that include various forms of advertising and marketing with a direct response (Sigurðardóttir et al., 2019).
- *E-commerce between consumers (Consumer to Consumer **C2C***): Represents the transactions that take place between people through the internet, to be precise, between a seller-consumer and a buyer-consumer (Azad et al., 2014). An example of C2C transaction is when individual aims to sell his/her used car to another person via the internet.
- *E-commerce between consumers and organizations (Consumer to Business **C2B**):* Refers to the transactions that take place between sellers-consumers and buyers-organization. An example of C2B is when an individual sells his/her house through the internet to organizations that are interested in buying the house (Sheikh & Basti, 2015).
- *E-commerce between the government and organizations (**B2G, G2B***): This type covers transaction between organizations and government such as sales, supplies, and contracts via the internet.
- *E-commerce between the government and consumers (**G2C**):* Refers to transactions between government and individuals, when the government conducts transaction such as electronic contracts for individuals via the internet, this category has not yet wildly emerged (Mawela, 2017).
- *Peer –To-Peer, e-commerce applications (**P2P**):* A technology used in B2B, C2C and B2C, as it enables the aforementioned parties to share and process information directly without the need for servers (Einav et al., 2016).
- *Mobile commerce:* Electronic commerce that takes place when using wireless communication such as cell phones and tablets to conduct transactions (Kourouthanassis, 2012).

- **2.3.2 Advantages of e-commerce**

Numerous studies have examined the advantages of adopting e-commerce, the following are considered the most prominent features of e-commerce;

1. Access to global markets: E-commerce has eliminated geographic borders, restrictions, and time to enter global markets. With the support of this feature, the world has turned into an open market for consumers all around the world. Organizations can find more consumers, better suppliers and more business partners (Wang et al., 2016). On the other side, consumers can find more alternatives and better prices.
2. Easily meet consumers' requirements: E-commerce improves many aspects in the organizations by facilitating and identifying customers' preference and work towards reaching it, which in turn lead to customer satisfaction and increase in sales activities (Onyusheva et al., 2018).
3. Flexibility: The emergence of e-commerce has increased flexibility in dealing with customers, companies, government agencies and other sectors. As companies now pay more attention to producing by the special needs of customers in terms of design, quality and price, which help achieve competitive advantages and make it easier for people to meet their need (Abdul Gaffar, 2016). Nowadays, companies that adopt e-commerce can compete with giant traditional companies, and the reason for that is the increase in flexibility in controlling assets and resources.
4. Low cost: The internet is the most seamless channel for distributing the various stored products electronically, as it reduces and ensures quick delivery of services and products. Electronic markets are an open interface for consumers who can choose among alternatives, as it facilitates obtaining the best offers, items and prices that the consumer needs through comparison between one site and another without the need to move physically between locations (Xuhua at al., 2019). These markets have eliminated the costs of intermediaries between companies and consumers. Hence, companies can save costs and time by directly transacting with the consumer.

2.3.3 Challenges of e-commerce

Organizations that decided to operate electronically might face some administrative and operational difficulties due to the change in the nature of work compared to the traditional style. The differences usually rise in administrative activities as they need special requirements to meet the new operating methods and the nature of work.

A study survey conducted by Suryanarayana Reddy (2017), included small and medium-sized companies in India, showed that most obstacles that prevent companies from adopting e-commerce are the matter of customer willingness (30%), and followed by lack of awareness and knowledge of e-commerce (30%), security issues (27%) and legislative issues (12%). There are other environmental and technical challenges such as lack of contact that can lower the level of trust. Product's tangibility plays an important role in consumer behaviour, as many consumers prefer to touch and feel the products before purchasing (Bhattacharya & Mishra, 2015). The cost of using the internet can still be out of reach for many consumers around the world (Shemi & Procter, 2013).

2.4 Electronic Operations

The combination of e-commerce and auto production using information technology and communication to monitor and control manufacturing facilities remotely, also to ensure an instant integration for data collection when requested (Li et al., 2013).

Operations are the main pillars, on which organization determines its strategic and competitive methods, as it manages to use the organization’s resources from (raw materials, technology and energy) to produce goods and services that meet customers’ needs (Gökmen, 2011). It also provides opportunities through allowing internet applications to direct strategic modifications in the adopted operating methods of the organization to raise the quality and efficiency of the production.

According to Karagozoglu and Lindell (2014), every organization regardless of its size, type or desired purpose, operates by converting a set of inputs such as raw material or data to receive the required output (goods, services) and this conversion includes one or more processes. To obtain a competitive

advantage, the organization must focus on the efficiency of the core possesses in the operation, researchers agreed on the most effective dimensions of the core possesses are the cost, quality, flexibility, and delivery (Alhorr et al., 2010). Operations management is considered one of the fields of knowledge that deals with the following:

- Managing and controlling the flow of resources (inputs) to production units.
- Managing and organizing production processes (transformation) to create added value.
- Managing and controlling the flow of production (outputs) to the surrounding environment, while ensuring an effective production system to achieve the organization's goals with high economic sufficiency.

During the last decade, the development of the operations system has resulted in accelerated demand and supply growth rates in the global market. The rapid growth of e-commerce and the distinguished role of information technology have contributed to linking producers, processors, and consumers in one loop within the framework of the market, which forced the management of organizations to form strategies that improve strengths to manage conflicts and reduce threats with maximizing opportunities that enable more adaption to the dynamic environment (Schniederjans et al., 2013).

The significance of conducting e-operations is the flexibility of meeting the needs of customers without being concerned with the geographical boundaries (Balaraman & Kosalram, 2012). This responsibility requires strategic planning of operation activities to complete them on schedule, the appropriate planning of activities, and the speed in meeting the needs achieve profits for the organization regardless of its size in the market, organizations rely on their ability to search for information, gathering data about consumer behaviour to help planning strategies, website designing, online advertising methods and distribution of goods and services. The management of any company whatever the size, duration of operation or level of success must review its operations plan periodically to reach its goals (Laudon & Traver, 2014).

According to Turban et al. (2018), operations in e-commerce are classified into two categories:

- Pure e-commerce: All operations are carried out electronically and deal with digital goods and services that are transferred to the customer via the internet.
- Partial e-commerce: Operations are conducted electronically by offering digital goods and services that are transferred to the customer via the internet, also offering physical goods and services that are transferred to the customer via traditional delivery.

2.5 Electronic Logistics

The entry of e-commerce in the business world led to introducing new models in the organization's operations. This emergence resulted in dropping the operation's cost and reducing time, which facilitated conducting transactions more effectively and efficiently, thus improving the image of the organizations in front of its customers.

Electronic logistics is defined as a set of networks involving two or more suppliers, storage and information technology systems, such as electronic data exchange and wireless communication tools, which aim to reduce the cost of operations, delivery time and improve customer services (Miščević et al., 2018).

The digital market has created new logistics functions that include many activities, which serve an interest of organizations operating in the field of e-commerce. Organizations have tended to transfer goods and services using information technology such as, customer relationship management and supply chain management (Ji et al., 2011).

The logistic factor plays a major strategic role in companies with the upsurge of global competition (Yong-Mei & Li, 2010). Companies seek to exploit logistical activities to improve their market position and to achieve a competitive advantage. Time pressure imposed on the organizations made it moving towards planning logistics as a strategy, as it is considered to be one of the essential factors that support business success by controlling and facilitating the flow of resources across the organization (Yong-Mei et al., 2010).

In light of the intensely competitive environment, many companies tend to enter the online market to gain market share and to take advantage of

available opportunities. Harvey (2014) claimed that e-commerce creates new challenges and opportunities for logistic activities. The significant increase in profits due to its vital role in developing multitasking operations as faster and cheaper delivery of goods and services is guaranteed. Logistics activities are one of the foundations that organizations must plan for the success of their external and internal operations, due to their role in controlling and facilitating efficient distribution of resources (Milton, 2017).

2.6 Profitability

According to Tulsian (2014), the concept of profitability is devoted to two words: profit and ability, as the term profit refers to the ability of the authority of the commercial entity to achieve profits. As for ability, it indicates the performance of the operating sector, and profitability can be defined as the ability to invest money to achieve returns from its use.

Profitability refers to ratio, while profits are absolute, even though both concepts are related to each other, they are different. In other words, despite the qualitative nature of each of them, each concept has a distinct role in business. Operational and financial efficiencies are more considered as an objective for the organizations than profit, which does not always indicate the efficiency (Arbelo, 2020).

According to Aulová et al. (2019) profitability analysis is one of the best techniques as it is an indicator to evaluate the financial position, capacity and competitiveness of the organization. From an accounting perspective, profitability is defined as “the difference between total revenue and total expenditures in a certain period of time” (Drenovac & Drenovac, 2018).

Profitability is a fundamental goal and a necessary mechanism for the survival and continuity of the organization’s business. It is the relationship between the profits a company makes, and the investments that contributed to achieving these profits, so we find that great energy is directed towards the optimal use of available resources to achieve the best possible return for shareholders (Chang, 2017).

2.6.1 Profitability Goals

According to Burja (2011), the goal of making a profit is one of the basic outcomes that attract investors. It is an important indicator for creditors, and an important tool to measure the efficiency of management for using resources. To achieve profit, the financial manager must obtain the required funds at the lowest possible cost and risks, investing these funds in a way that enables the company as one entity to achieve a return that exceeds of what the shareholders (owners) can collect from investing their money in other projects that are exposed to the same degree of risk (Watson & Nossuli, 2015).

The organization management, investors, and lenders are interested in the efficiency of the management and its ability to use the available resources, the investors are interested in the achieved return on their investments compared to the return in competitive companies and the lenders are interested in the profitability as a guaranteed source for loan repayment obligations (Chen et al., 2018).

A financing policy for the organization dictates the need to maintain some kind of balance between internal and external sources, as well as considering capacity when expanding dependence on external financing for the ability to pay back (Brierley, 2016).

2.7 Previously Related Researches and Study Works

Westland (2020) examined the challenges and lessons learned for a company adopting e-commerce in its operations to reveal the role of technology and business strategies in the company's success. The impact of customer's satisfaction towards e-commerce was measured. The study used several methods to collect data, including questionnaires and interviews with the administration and the team working in the company. A survey was conducted on the company's website and the results showed that the company's use of e-commerce is an appropriate and successful way to support its business strategy.

Vatavu (2014) analyzed the performance of Romanian companies by determining their profitability. The researcher conducted the study on 128 Romanian companies which are included in the Bucharest Stock Exchange

in the period of 2003 to 2012. The data was analyzed using cross sectional regressions. The variables that the researcher assumed to have effect on profitability included taxation, debt, inflation, liquidity and size. As for performance, return on assets was used as a proxy. Findings showed that taxation negatively affects the performance. Limited borrowings are indicators of a profitable company. Higher Inflation rates strongly reduce the performance of companies while high liquidity levels increase profitability.

Elbanna (2009) aimed to evaluate the effectiveness of strategic management through exploring its relationship to management participation. The sample of the study included private and public organizations in the UAE. The findings showed that strategic management practices significantly improve the effectiveness of strategic planning in Arab countries. The research also explained the prominence of extensions in structuring strategic management models.

Němcová & Dvořák (2011) assessed customers' influence on the significance of e-commerce implications. Accordingly, the researchers try to use the findings to develop a model that will help process customer's dynamic changes as they believe that the priority of strategic management in implementing e-commerce is to satisfy the customer's needs. The study also covers the aspects related to the impact of conducting e-commerce on changing the attitude of customers and suppliers and how this outcome can help the company to face the external and internal environment in the market. The study used a survey method to determine the advantages and disadvantages of adopting e-commerce in enterprises by taking feedback from customers, the result showed that customers effectively affect the stability and sensitivity of e-commerce models in a company.

Ocloo et al. (2020) studied the factors that affect the success of B2B in e-commerce by developing a model to evaluate these factors. A survey has been developed to study the relationship between these factors affecting the commercial performance of companies. The study sample consisted of 143 companies in the USA and Taiwan, which operate in B2B e-commerce for more than one year. The results showed that:

- E-commerce planning and business strategies have a positive impact on business performance.
- Strengthening the relationships between business partners has a positive impact on business performance.
- Companies seeking to successfully implement B2B should focus on improving commercial performance.

Lorca et al. (2019) investigated the impact of e-commerce on profitability and revenue in Spain. The study focused on companies that work in the manufacturing sector, with a sample of 2544, in a time period of 8 years. The results showed that there was no significant impact of e-commerce on revenue. In contrast, the study supported that adopting high-level e-commerce operations resulted in growth in profitability.

Duch-Brown et al. (2017) explored the introduction of e-commerce to costumers' by determining the relationships between; electronic distribution channels and sales, customers' perceived value and online sales and the effect of online distribution channels and European markets. The findings indicated a significant increase in total sales. Moreover, the implementation of online sales enhanced the perceived value gained by the costumers. Finally, the results explained that e-commerce does not affect price level of European markets as their products prices are higher in both traditional and electronic distribution channels.

Pervan and Mlikota (2013) investigated profitability determinants in food and beverage industries in Croatia. The period of study was 1999 – 2009. Dynamic panel analysis was conducted to reveal the outcomes. The results showed a significant negative association between debt and profitability. Findings also indicated a significant relationship between size and profitability. Finally, the results explained a neutral influence of risk and asset turnover on profitability.

Barsauskas et al. (2008) explored the cost positions of wholesale companies that adopt e-commerce in terms of cost-efficiency. The study also examined different aspects of the company's cost structure such as labour cost, inventory average cost and the cost of materials. The results through

quantitative and qualitative analysis showed that there is a positive impact when using e-commerce on business efficiency.

Manzoor (2017) identified whether e-commerce creates an additional competitive advantage for companies. The study used challenges and previous experiments for a company that performs e-commerce to reveal the role of technology and business strategy in the success of the company, as the impact of customer's satisfaction on e-commerce transactions was measured. The study used several methods to collect data, including questionnaire and interviews with management and employees of the company and a customer survey was conducted on the company's website. The results of the study showed that the company's implementation of e-commerce is an appropriate and successful method in supporting the company's welfare through improving low-cost leadership advantages.

Elbeltagi et al. (2016) developed an analytical and conceptual framework for electronic information systems in e-commerce to obtain a competitive advantage. The study model consisted of six main components, which are strategy development, e-commerce, business operations, information technology management, information management, customer management and knowledge management. The study applied the model to three companies (Dell Computer, Charles Schwab, eBay). The results showed that the framework supports strategic tools for e-commerce and that there are new tools for information system companies adopting e-commerce for analyzing their strategies. The study also mentioned that Wiseman's tool needs to be modified by the elements of the information framework of e-commerce.

Nunes and Serrasqueiro (2015) studied the determinants of profitability in knowledge business services. The study was conducted on a sample of 187 knowledge business services in Portugal, between the years of 2002-2009. The study found out that some of the determinants of profitability include: age, liquidity, R&D expenditure and size.

Shi (2012) discussed the factors that influence the success of e-commerce applications in federal agencies, exploring the role of transformational

leadership and strategic planning in the success of e-commerce applications dedicated to serving citizens. The study was based on a review of literature related to e-commerce in building a hypothetical model of the impact of strategic planning and transformational leadership, other factors such as size and complexity were considered. The study considered these factors as independent variables and the success of e-commerce applications as a dependent variable. Measured by a set of criteria based on the customer and the used system, the results showed that there is a significant relationship between organizational factors (transformational leadership and strategic planning) and the success of e-commerce applications in federal agencies.

Shin (2011) used in his study McCarthy Marketing Mix Model and Porter's Generic Strategies to determine strategies that respond to achieving competitive advantages for companies adopting e-commerce. The results showed that the internet greatly influences marketing mix factors and porter's competitive forces and that there is no such as a perfect strategy to work in e-commerce due to the different sources of competitive advantages in the markets.

Kreindler et al. (2014) described the relationship between the shift to e-commerce and the regulatory outcome of this shift in companies to understand the extent of the impact of e-commerce and information technology on the organization. The study sample consisted of 44 Israeli companies including manufacturing, trading, and selling in retail companies. The study used a questionnaire method to collect primary data from the sample of the study which was distributed to the owners and managers of the companies. The findings showed that the shifting of the organization to operate in e-commerce has a positive impact on formal communication, the flow of information, customer and supplier relationships. The results also showed that the shift of companies to operate electronically has a negative impact on human resource performance in these companies.

Kao and Decou (2014) established a model which includes seven dimensions (financial, legal, catering, marketing, security, operations, and technology) to assist planning managers in dealing with e-commerce

applications and determine the most significant implications of adopting this model as a practice in business activities. The results showed that no drawbacks were observed in the analysis for working on the model and recommended in the future to conduct more researches on the model using larger samples.

Liang et al. (2012) showed the impact of e-commerce models represented by receiving and delivering services electronically, the industrial characteristics that include information on the content of products, and value chain performance of companies to reveal the reason why some industries obtain more benefit operating in e-commerce than others. The results showed that the industrial characteristics and e-commerce models have a significant impact on corporate value chain performance.

Chong at al. (2015) explained the relationship between the variables of e-commerce and marketing performance in the service's organizations. By selecting organizations and private sector offices in China, the researcher established a hypothetical model that reflects the nature of the relationship between the dimensions of e-commerce and marketing performance. The results showed a significant correlation between e-commerce and marketing performance variables, and that there is a significant impact of e-commerce on marketing performance.

Glenn (2007) determined the effects of internal-external factors to achieve a competitive advantage for small and medium-sized organizations in the USA. By selecting a random sample of (655) organizations, the results showed that organization’s desire for conducting e-business is low, these organizations consider e-business operations as one of its objectives, small and medium-sized organizations do not have the required infrastructure to practice e-business. Organizations have weak confidence in communication's companies and that there is a significant impact of internal-external factors on the success of achieving a competitive advantage for organizations.

Hua et al. (2015) pointed out the effect of adopting e-commerce in hotels on the hotel hospitality industry in the USA. The sample of the study consisted of (275) hotels in a period of time of 5 years (2007-2012). The study concerned

with a set of variables (increase in market share and geographic expansion in the hotel's hospitality industry, hotel hospitality development, hotel hospitality high cost, hotel hospitality channel of distribution shortages). After conducting statistical analysis, the study reached the following results:

- There is a significant positive relationship between adopting e-commerce in hotels and increasing market share and geographic expansion in the hotel's hospitality industry.
- There is a significant positive relationship between adopting e-commerce in hotels and hotel hospitality development.
- There is a significant positive relationship between adopting e-commerce in hotels and hotel hospitality high cost.
- There is a significant positive relationship between adopting e-commerce in hotels and hotel hospitality channel of distribution shortages.

Satar et al. (2019) investigated in the relationship between e-commerce and customer value proposition (CVP) for companies and the extent of its long-term and short-term impact on the performance of these companies. The study conducted experimental data analysis on (100) companies, the results showed that companies that implement e-commerce have superior performance and higher CVP through their websites. The results also showed that companies can enhance short-term performance by providing pre-purchasing value propositions to customers, and it can enhance long-term performance through product development and developing its customer's needs.

Zhu and Kraemer (2012) directed a study to identify:

- The relationship between competitive strategy and e-commerce adoption.
- The relationship between competitive strategy and financial performance
- The relationship between e-commerce adoption and financial performance
- Implications for adopting different levels of e-commerce and competitive strategies (cost leadership, differentiation) over financial performance (return on assets, return on equity, profit, capital turnover,).

The study sample consisted of (260) companies, the results showed that the types of competitive strategies used in e-commerce adoption are an important factor that affects the financial performance in these companies. The results also showed that companies which applied differentiation with the adoption of e-commerce increased their profitability compared to other companies in the market.

Subramani and Walden (2011) demonstrated the answers of the following questions:

- What are the shareholder's returns in companies that engage in e-commerce?
- What are the returns of the companies that operate traditionally (Brick-and-Mortar) compared to companies that operate electronically?

- What are the returns of conducting B2B compared to B2C?

- What are the returns of e-commerce based on tangible goods compared to e-commerce based on digital goods?

The results indicated that e-commerce is leading to positive cumulative returns to shareholders. Returns related to traditional companies are no different from the returns of e-companies. The returns attributed to B2C trading are higher than the cumulative returns of B2B. Finally, returns from tangible goods are higher than intangible goods.

CHAPTER 3
METHEDOLOGY

3.1 Introduction

The methodology is a link between the proven experience and accumulated knowledge, and the ability to achieve goals from experiences and knowledge in business enterprises for the present and the future (Zikmund et al., 2010). This chapter covers the study methodology design, the study population and its sample, data collection procedures, the study tools, data analysis procedures, the validity and reliability of the study tool as well as ethical considerations.

3.2 Research Design

A quantitative method is used in this research as a descriptive and analytical study to check effect of strategic management for implementing e-commerce represented by electronic operations and electronic logistics in increasing profitability. By using a questionnaire from literature reviews to test the hypotheses for this research, where the employees of the technology companies in Tripoli, Libya formed as an analysis unit of this research. The nature of the study is descriptive and it is considered to be a correlational in type as the objective and variables are clearly defined (Kumar, 2011). It is cross-sectional as it is held at one point in time. The study is categorized as a field study since it was conducted with minimum interference and in a natural environment (Sekaran & Bougie, 2016).

3.3 Population and Sampling

The targeted population of this study includes all the employees in the 13 technology companies adopting e-commerce in Tripoli, Libya. The information of the available technology companies was gathered through the Ministry of Communication and Information in Libya (www.cim.gov.ly). After the number of employees for technology companies was determined, the researcher used a non-portability convenience sampling method to select a sample size accordingly with the study population. A total of 480 questionnaires were distributed on 13 companies, 415 were returned and 407 questionnaires were applicable.

3.4 Data collection procedures

The following sources have been adopted to obtain information and evidence in order to reach the purpose of the study.

3.4.1 Primary sources

The data collected from the respondents of the study through the designed questionnaire.

3.4.2 Secondary sources

Information theoretically related to the research topic which included books, research papers, internet and scientific articles.

3.4.3 A comparison between primary and secondary data

According to Yin (2017), primary data are relatively costly to reach, needs more time to be collected and usually found in a crude form. On the other hand, secondary data are less expensive and takes short time to be collected and usually found in a refined form. In the areas of accuracy and reliability, primary data found to be more accurate, reliable and more specified to the researcher’s needs than the secondary data.

3.5 Measurement

The study instrument used for this study is primary in nature. Questionnaire has been designed with five–point Likert scale ranging from: 5 = Strongly Agree, 4= Agree, 3= Neither Agree/ Nor Disagree, 2= Disagree and 1= Strongly Disagree.

Table 3.1: Five-Point Likert Scale

Strongly Disagree	Disagree	Neither Agree/ Nor Disagree	Agree	Strongly Agree
1	2	3	4	5

Source (Joshi et al., 2015)

3.5.1 Strategic Management

Table 3.2: Items of measure for strategic management
Source: (Elbanna, 2009)

	Measurment items	
1	We have a clear vision of the company's mission.	
2	We aspire to deliver the company's mission to the employees to raise performance efficiency.	
3	The company analyzes the external enviroment to determine the risks it may expose to in the future.	
4	The company analyzes the external environment to discover the available opportunities.	
5	The management monitors the internal environment of the company to discover its strengths and weaknesses.	
6	Long-term goals are formulated based on the environmental analysis of the company.	
7	The goals of the company are clear, and everyone seeks to achieve them.	

3.5.2 E-Commerce

3.5.2.1 Electronic Operations

Table 3.3: Items of measure for electronic operations
Source: (Fruhling & Digman, 2000; Kooli et al., 2014; Duch-Brown et al., 2017)

8	The company diversifies the products/services it offers via the internet.	
9	The customer easily finds the products/ services offered by the company on the internet.	
10	The company provides convenience to the customer in online purchasing.	
11	The costs of shipping and delivery of products/ services are relatively low.	
12	The company focuses on reducing the cost of product/ service provided on the company's website.	
13	The company hires via the internet to cut costs.	
14	The company offers highly valued products/ services via the internet.	
15	The company has a security system that only enables users to access data and information.	
16	The company monitors the production process to reduce errors.	
17	The company is equipped with advanced programmes for the ordering process on the company's website.	
18	The company provides complete information about the products/ services on the website.	
19	The company uses online advertising to increase sales.	
20	The company has multiple sales channels on its website.	
21	The company takes customer feedback into account when designing products/ services.	
22	The company responds to customer requests when designing products/ services.	

3.5.2.2 Electronic Logistics

Table 3.4: Items of measure for electronic logistics
Source: (Fruhling & Digman, 2000; Kooli et al., 2014; Duch-Brown et al., 2017)

23	The company has strategic alliances with suppliers through the internet.	
24	There are continuous communications with the stakeholders via the internet.	
25	The company provides information instantly.	
26	The company has experts employees in information technology.	
27	The company has an inventory system to know the number of sales and orders.	
28	The company has experts employees in information technology.	

3.5.3 Profitability

Table 3.5: Items of measure for profitability
Source: (Nunes & Serrasqueiro, 2015; Vatavu, 2014; Pervan & Mlikota 2013)

29	Diversity in the nature of the products/ services provided leads to the repeat purchases rate by customers	
30	The increase in the geographical distribution of the company's offices and branches lead to an increase in the number of customers requesting for the products/ services.	
31	There is an increase in the number of customers compared to competitors in the same sector.	
32	The new products/ services innovations in the company have increased its profitability.	
33	There is an increase in the company's sales growth compared to the competitors in the same sector.	

The questionnaire was developed in two sections with 37 items with the format of a typical five-points Likert scale starting from 1 (Strongly disagree) to 5 (Strongly Agree). The first part consisted of 4 measurement scales describe demographic and personal information (gender, age, educational level and years of experience); the second part included 33 items that attached to the research variables. Strategic management consists of (7 items) which developed by (Elbanna, 2009) with the format of a typical five-

points Likert scale starting from 1 (I Completely Disagree) to 5 (I Completely Agree). E-Commerce consists of (21 items) which developed by (Fruhling & Digman, 2000; Kooli et al., 2014; Duch-Brown et al., 2017) with the format of a typical five-points Likert scale starting from 1 (I Completely Disagree) to 5 (I Completely Agree). Where it is divided to two sub-variables; First, electronic operation consists of (15 items). Second, electronic logistics consists of (6 items). Profitability consists of (5 items) developed by (Nunes & Serrasqueiro, 2015; Vatavu, 2014; Pervan & Mlikota 2013) with the format of a typical five-point Likert scale starting from 1 (I Completely Disagree) to 5 (I Completely Agree).

3.6 Data Analysis Procedure

The methods used in the statistical analysis differ in terms of complexity and tolerance depending on the purpose of their use in order to reach reliable results to support the study's hypotheses and objectives (Cowell & Flachaire, 2015). Therefore the data was checked and tabulated to facilitate dealing with it via software applications, also some statistical specialists were consulted for the study and data processing. The researcher used Cronbach's alpha to test the internal consistency to ensure the reliability of the measurement tool. The Statistical Package for Social Sciences (SPSS) version 25 was used to analyze the data collected from the questionnaire.

- Cronbach's alpha to test the internal consistency to ensure the reliability of the measurement tool.
- The means, standard deviations and standard error of mean, to analyze the responses of the questionnaire and clarify the relative significance of variables.
- Frequencies and percentages.
- Pearson correlation to assess the relationship between the variables.
- Simple regressions to determine the level of effect and association between the variables.
- Process Macro version 3.5 to show the direct and indirect impact of the proposed model of the study.

- **3.7 Validity and Reliability**

The questionnaire has been reviewed by university professors who are having an experience and knowledge in the field of information technology and strategic management to detect mistakes or a possible source of misunderstandings and to test the accuracy and validity of the professional terms and perspicuity. Validity has also been checked through distributed 20 questionnaires as a pilot research to make an adjustment in proportion to the responders' abilities to answer the questions, and based on their feedback the questionnaire questions were edited to be more comprehensive and accurate. To ensure that the questionnaire properly measures the variables of the study, the researcher conducted an internal consistency test, as the consistency of the scale was assessed with a calculation of Cronbach's Alpha later in chapter 4. This method depends on the consistency of the performance of the participants from one section in the measurement's tool to another. The method also indicates the strength of the relationship between the sections of the questionnaire, supports the validity and the reliability of the study tool used (Taber, 2018). Although there are no approved rules for proper values of the parameter of alpha, (alpha> 0.70) is considered a reasonable outcome in researches related to administrative sciences (Bonett & Wright, 2015).

3.8 Ethical Considerations

The researcher sought consent from the respondents when the questionnaire was distributed. The researcher was granted an approval from The Ethics Committee of Near East University before distributing the questionnaire to the participants. The instructions of the committee covered the issues of:

- Informing the participants about the objectives of the study and the role of their contributions.
- The participants have the right to refuse or accept participating to assure a voluntary process.
- The right to withdraw from the research at any time if they want so.

- Under no circumstances will participant's contributions other than general findings be shared with other persons or organizations.
- The researcher was also requested to acquire permissions to use the items of measure from the authors.

3.9 Conclusion

This chapter explained the methodology which the researcher has adopted and it covered the research design, the population and sampling of the study, the data collection procedures, primary and secondary source of data, the measurement tool, data analysis procedure, validity and reliability issues and ethical considerations.

CHAPTER 4
DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter aims to explain the outcomes of using some descriptive statistical methods which the questionnaire resulted, through analyzing the responses of the participants regarding the effect of strategic management for implementing e-commerce on profitability. The descriptive statistical approaches used to analyze the data included the means, standard deviations, frequencies, percentages. Cronbach's Alpha was also used to test the reliability of the measurement tool of the study. The results have been presented through two sections in which the questionnaire is structured. The first section covers the demographical data of the participants. The second section deals with testing the hypothesis of the study using Pearson correlation, regression analysis and Process Macro (v3.5) to determine the relationship and the effect between the variables and the impact of the mediator variables in the model of the study.

4.2 Response Rate

Table 4.1: Response rate

	Number	Percentage
Questionnaire distributed	480	100%
Questionnaires not returned	54	11,25%
Questionnaires excluded	19	3,95%
Questionnaires realized	407	84,8%

480 questionnaires of the study were distributed to 13 technology companies that adopt e-commerce in their operations. A total of 419 questionnaires were returned, 19 questionnaires were excluded due to missing information and 407 questionnaires were applicable which explains 84.8% response rate. The following table explains more clearly the response rate.

4.3 Reliability and Internal Consistency

4.3.1 Reliability Statistics for Strategic Management

Table 4.2: Cronbach's Alpha for strategic management

Variable	Cronbach's Alpha	N of statements
Strategic management	0,781	7

The table (4.3.1) shows a Cronbach's alpha of 0.781. This indicates that the seven measures engaged to measure the use of strategic management are reliable as they are within the range of 0.70 and 0.95.

4.3.2 Reliability Statistics for Electronic Operations

Table 4.3: Cronbach's Alpha for electronic operations

Variable	Cronbach's Alpha	N of statements
Electronic operations	0,814	15

The table (4.3.1) indicates a Cronbach alpha of 0.814. This indicates that the measures engaged to measure the use of electronic operations are reliable as they are in the recommended range.

4.3.3 Reliability Statistics for Electronic Logistics

Table 4.4: Cronbach's Alpha for electronic logistics

Variable	Cronbach's Alpha	N of statements
Electronic logistics	0,792	6

The table (4.3.3) shows a Cronbach's alpha of 0.792. This shows that the measures engaged to measure the use of electronic logistics are reliable.

4.3.4 Reliability Statistics for Profitability

Table 4.5: Cronbach's Alpha for profitability

Variable	Cronbach's Alpha	N of statements
Profitability	0,857	5

The table (4.3.4) indicates a Cronbach alpha of 0.857. This also reflects the reliability of the measurements.

The Cronbach's Alpha for all the variables in the questionnaire was in the recommended range. Therefore, the questionnaire fits to be a reliable tool to measure the effect of strategic management for implementing e-commerce on profitability.

4.4 Demographic Descriptive Analysis

4.4.1 Gender

Table 4.6: Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	312	76,65	76,65	76,65
	Female	95	23,34	23,34	23,34
Total		407	100,0	100,0	

Table (4.4.1) shows that the great majority of the respondents were male with approximately 77% of the total number of respondents (312 out of 407). Females represented 23% of the total number of respondents (95 out of 407).

4.4.2 Age Group

Table 4.7: Age group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<25	62	15,2	15,2	15,2
	25-29	91	22,3	22,3	96,5
	30-34	64	15,7	15,7	99,4
	35-39	59	14,5	14,5	74,5
	40-44	44	10,8	10,8	69,2
	45-49	49	12,0	12,0	71,4
	50<	38	9,3	9,3	100,0
Total		407	100,0	100,0	

The table (4.4.2) presents the distribution of the age group of the respondents. The majority of the respondents were in the age group of 25-29 with a percentage of 22.3%. The table also shows a close percentage of the respondents from the age group of 30-34 and 25> (15.7% and 15.3% respectively), lastly, two minority age groups who are represented in 50< and 40-44 (9.3% and 10.8% respectively).

4.4.3 Educational Qualification

The table (4.4.3) explains that the majority of the respondents have a bachelor degree with about 63% of the total number. Respondents with a diploma and below are second in order with 20.4%, Master respondents 12.0% and PhD 4.7%.

Table 4.8: Educational qualification

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Diploma and below	83	20,4	20,4	20,4
	Bachelor	256	62,9	62,9	92,5
	Master	49	12,0	12,0	84,4
	PhD	19	4,7	4,7	100,0
Total		407	100,0	100,0	

4.4.4 Years of Experience

Table 4.9: Experience (years)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<1	33	8,1	8,1	8,1
	1-4	92	22,6	22.,6	91,5
	5-9	121	29,7	29,7	96,4
	10-14	74	18,9	18,9	89,2
	15-19	37	9,0	9,0	76,8
	20-24	29	7,1	7,1	74,7
	25<	21	5,2	5,2	100,0
Total		407	100,0	100.0	

The table (4.4.4) reflects the statistical analysis of respondents' experience in years. The table shows that the majority of respondents have an experience period of 5-9 years with 29.7 %, secondly, there is the experience time of 1-4

years with 22.6%, thirdly the period of 10-14 for approximately 19%. The minority group was represented by the time of more than 25 years of experience 5.2%.

4.5 Statistical Analysis of Variables

4.5.1 Strategic Management

To statistically describe the independent variable of strategic management in technology companies that implement e-commerce, the researcher used the means, standard deviations and standard errors of mean to test the responses for the seven statements structured to measure this variable, as it is presented in table (4.5.1).

Table 4.10: Strategic management descriptive statistics

	Statement	N	Mean	Std. Deviation	Std. Error Mean
1	We have a clear vision of the company's mission.	407	4.433	0.5747	0.04646
2	We aspire to deliver the company's mission to the employees to raise performance efficiency.	407	4.464	0.6143	0.04966
3	The company analyzes the external environment to determine the risks it may expose to in the future.	407	4.658	0.5576	0.04507
4	The company analyzes the external environment to discover the available opportunities.	407	4.532	0.5868	0.04743
5	The management monitors the internal environment of the company to discover its strengths and weaknesses.	407	4.376	0.6246	0.05049
6	Long-term goals are formulated based on the environmental analysis of the company.	407	4.359	0.5943	0.04804
7	The goals of the company are clear, and everyone seeks to achieve them.	407	4.434	0.6268	0.05067

The results clarify that the mean range is between 4.359 and 4.658. The highest mean was for the 3rd statement which states that "the company analyzes the external environment to determine the risks it may expose to in the future", with a mean of 4.658 and standard deviation of 0.5576. The lowest mean was for the 6th statement which states that "Long-term goals are formulated based on the environmental analysis of the company", with a mean of 4.359 and standard deviation of 0.5943. The table also shows a low

level of dispersion in the responses which reflects the comprehension of the respondents about the significance of strategic management.

4.5.2 E-Commerce

4.5.2.1 Electronic Operations

To statistically describe the independent variable of electronic operations in technology companies that implement e-commerce, the researcher used the means, standard deviations and standard errors mean to test the responses for the fifteen statements structured to measure this variable, as it is presented in table (4.5.2.1).

Table 4.11: Electronic operations descriptive statistics

	Statement	N	Mean	Std. Deviation	Std. Error Mean
8	The company diversifies the products/services it offers via the internet.	407	4.257	0,8364	0.06761
9	The customer easily finds the products/ services offered by the company on the internet.	407	4.417	0.7364	0.05953
10	The company provides convenience to the customer in online purchasing.	407	4.146	0.6839	0.05529
11	The costs of shipping and delivery of products/ services are relatively low.	407	4.317	0.9374	0.07578
12	The company focuses on reducing the cost of product/ service provided on the company's website.	407	4.528	0.8473	0.06850
13	The company hires via the internet to cut costs.	407	4.457	0.9512	0.07689
14	The company offers highly valued products/ services via the internet.	407	4.254	1.0045	0.08120
15	The company has a security system that only enables users to access data and information.	407	4.411	0.7932	0.06412
16	The company monitors the production process to reduce errors.	407	4.276	0.8725	0.07053
17	The company is equipped with advanced programmes for the ordering process on the company's website.	407	4.513	0.6591	0.05328
18	The company provides complete information about the products/ services on the website.	407	4.235	0.8946	0.07232
19	The company uses online advertising to increase sales.	407	4.233	0.7729	0.06248

20	The company has multiple sales channels on its website.	407	4.126	0.9914	0.08014
21	The company takes customer feedback into account when designing products/ services.	407	4.387	0.7173	0.05799
22	The company responds to customer requests when designing products/ services.	407	4.196	0.8042	0.06501

The analyzed data show that the mean range is between 4.126 and 4.528, the highest mean was for the 12th statement which states that "The company focuses on reducing the cost of product/ service provided on the company's website." with a mean of 4.528 and standard deviation of 0.8473. The lowest mean was for the 20th statement which states that "The company has multiple sales channels on its website", with a mean of 4.126 and standard deviation of 0.9914. the results also show a low level of dispersion in the responses which reflects the comprehension of the respondents about the significance of electronic operations.

4.5.2.2 Electronic Logistics

To statistically describe the independent variable of electronic logistics in technology companies that implement e-commerce, the researcher used the means, standard deviations and standard errors mean to test the responses for the six statements structured to measure this variable, as it is presented in table (4.5.2.2).

Table 4.12: Electronic logistics descriptive statistics

	Statement	N	Mean	Std. Deviation	Std. Error Mean
23	The company has strategic alliances with suppliers through the internet.	407	3.848	0.6453	0.05216
24	There are continuous communications with the stakeholders via the internet.	407	4.284	0.8332	0.06736
25	The company provides information instantly.	407	4.429	0.8942	0.07229
26	The company has expert employees in information technology.	407	4.153	0.9573	0.07739
27	The company has an inventory system to know the number of sales and orders.	407	4.598	0.8452	0.06833
28	The company has expert employees in information technology.	407	4.387	0.7924	0.06406

The results indicate that the mean range is between 3.848 and 4.598, the highest mean was for the 27th statement which states that “The company has an inventory system to know the number of sales and orders” with a mean of 4.598 and standard deviation of 0.8452. The lowest mean was for the 23rd statement which states that “The company has strategic alliances with suppliers through the internet”, with a mean of 3.848 and standard deviation of 0.6453. The table also shows a low level of dispersion in the responses which reflects the comprehension of the respondents about the significance of electronic logistics.

4.5.3 Profitability

To statistically describe the dependent variable of profitability in technology companies that implement e-commerce, the researcher used the means, standard deviations and standard errors mean to test the responses for the five statements structured to measure this variable, as it is presented in table (4.5.3).

Table 4.13: Profitability descriptive statistics

	Statement	N	Mean	Std. Deviation	Std. Error Mean
29	Diversity in the nature of the products/ services provided leads to the repeat purchases rate by customers	407	4.385	0.5935	0.04798
30	The increase in the geographical distribution of the company’s offices and branches lead to an increase in the number of customers requesting for the products/ services.	407	4.592	0,5358	0.04798
31	There is an increase in the number of customers compared to competitors in the same sector.	407	4.156	0.6193	0.05006
32	The new products/ services innovations in the company have increased its profitability.	407	4.532	0.7331	0.05926
33	There is an increase in the company’s sales growth compared to the competitors in the same sector.	407	4.458	0.6703	0.05419

The table shows that the mean range is between 4.156 and 4.592, the highest mean was for the 30th statement which states that “The increase in the geographical distribution of the company’s offices and branches lead to an increase in the number of customers requesting for the products/ services.”, with a mean of 4.592 and standard deviation of 0,5358. The

lowest mean was for the 31st statement which states that “There is an increase in the number of customers compared to competitors in the same sector”, with a mean of 4.156 and standard deviation of 0.6193. the table also shows a low level of dispersion in the responses which reflects the comprehension of the respondents about the significance of profitability.

4.6 Hypotheses Statistical Analyzing

This section deals with testing the hypothesis of the study using the appropriate statistical methods, to determine the effect and the relationship between the variables and to decide whether to reject or fail to reject the null hypotheses. The researcher will use Pearson correlation, simple regression and Process Macro (v3.5) using the statistical package for the social science program (SPSS) version 25.

4.6.1 Correlation Analysis

Table 4.14: Correlations

Hypothesis	N	Pearson Correlation	Sig.
H1: Strategic management has a significant effect on profitability.	407	.345	0.000
H2: Strategic management has a significant effect on electronic operations.	407	.527	0.000
H3: Electronic operations have a significant effect on profitability.	407	.357	0.000
H4: Strategic management has a significant effect on electronic logistics.	407	.367	0.000
H5: Electronic logistics have a significant effect on profitability	407	.318	0.000

The table above presents the findings from Pearson Correlation analyses that were conducted to determine the association between the variables. Results indicate a 34.5% positive relationship between strategic management and Profitability. Strategic management and electronic

operations have a positive correlation of approximately 53%. There is also a positive association between electronic operations and profitability of about 36%. Moreover, findings explain a 36.7% positive relationship between strategic management and electronic logistics, while electronic logistics and profitability have a positive correlation of 31.8%. All results are considered to be statistically significant as they have a p value less than 0.01 (2-tailed).

4.6.2 Regression analysis of the effect of strategic management on profitability

H1: Strategic management has a significant effect on profitability.

Table 4.15: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.345[a]	.122	.118	.405
[a]. Predictors : (Constant), Strt.Man				

Table 4.16: ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	18.685	1	18.685	51.837	0.000[b]
	Residual	39.580	405	.247		
	Total	58.265	406			
a. Dependent Variables: Prof						
b. Predictors: (Constant) : Strt.Man						

Table 4.17: Coefficients [a]

Model		Unstandardized Coefficients			T	Sig.
		B	Std. Error			
1	(Constant)	2.944	.303		8.249	.000
	Strt.Man	.438	.020		16.957	.000
A. Dependent Variable: Prof						

The regression analysis in the above tables presents the effect of strategic management on profitability in technology companies. The simple regression analysis model represents the relationship between the independent and dependent variable. The results indicate a positive relationship between strategic management and profitability of 34.5%. The model also shows that the R^2 (coefficient of determination) equals to (0.122) which means the 12.2% of the changes that occur to profitability (dependent variable) are caused by strategic management (independent variable) in technology companies in Tripoli. Moreover, the table shows the outcome of the beta coefficient (β =0.438) which means that 1 unit of increase in strategic management will lead to a 0.438 increase in profitability. Finally, according to the significance level (.000) which is less than (.05), the model is considered to be significant and accordingly the null hypothesis must be rejected and accept the alternative hypothesis which states that:

Strategic management has a significant effect on profitability

4.6.3 Regression analysis of the effect of strategic management on electronic operations

H2: Strategic management has a significant effect on electronic operations.

Table 4.18: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.527[a]	.278	.275	.785
[a]. Predictors : (Constant), Strategic Management				

Table 4.19: ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	16.292	1	16.292	78.505	0.000[b]
	Residual	40.936	405	.229		
	Total	57.228	406			
a. Dependent Variables: Elec.Op						
b. Predictors: (Constant) : Strt.Man						

Table 4.20: Coefficients [a]

Model		Unstandardized Coefficients			T	Sig.
		B	Std. Error			
1	(Constant)	1.696	.551		4.050	.000
	Strt.Man	.531	.0718		8.700	.000
A. Dependent Variable: Elec.Op						

The tables above show the effect of strategic management on electronic operations in technology companies. The simple regression analysis model represents the relationship between the independent and dependent variable. The results indicate a positive relationship between strategic management and electronic operations of 52.7%. The model also shows that the R^2 (coefficient of determination) equals to (0.278) which means the 27.8% of the changes that occur to electronic operations (dependent variable) are caused by strategic management (independent variable) in technology companies in Tripoli. Moreover, the table shows the outcome of the beta coefficient (β =0.531) which means that 1 unit of increase in strategic management will lead to a 0.531 increase in electronic operations. Finally, according to the significance level (.000) which is less than (.05), the model is considered to be significant and accordingly the null hypothesis must be rejected and accept the alternative hypothesis which states that:

Strategic management has a significant effect on electronic operations

4.6.4 Regression analysis of the effect of electronic operations on profitability

H3: Electronic operations have a significant effect on profitability.

Table 4.21: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.357[a]	.127	.124	.394
[a]. Predictors : (Constant), Elec.Op				

Table 4.22: ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	21.885	1	21.885	81.107	0.000[b]
	Residual	43.937	405	.348		
	Total	65.822	406			
a. Dependent Variables: Prof						
b. Predictors: (Constant) : Elec.Op						

Table 4.23: Coefficients [a]

Model		Unstandardized Coefficients		T	Sig.
		B	Std. Error		
1	(Constant)	1.974	.204	4.820	.000
	Elec.Op	.379	.039	8.420	.000
A. Dependent Variable: Prof					

The results in the tables above show the effect of electronic operations on profitability in technology companies. The simple regression analysis model represents the relationship between the independent and dependent variable. The results indicate a positive relationship between electronic operations and profitability of 35.7%. The model also shows that the R^2 (coefficient of determination) equals to (0.127) which means the 12.7% of the changes that occur to profitability (dependent variable) are caused by electronic operations (independent variable) in technology companies in Tripoli. Moreover, the table shows the outcome of the beta coefficient (β =0.379) which means that 1 unit of increase in electronic operations will lead to a 0.379 increase in profitability. Finally, according to the significance level (.000) which is less than (.05), the model is considered to be significant and accordingly the null

hypothesis must be rejected and accept the alternative hypothesis which states that:

Electronic operations have a significant effect on profitability

4.6.5 Regression analysis of the effect of strategic management on electronic logistics

H4: Strategic management has a significant effect on electronic logistics.

Table 4.24: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.367[a]	.135	.131	.529
[a]. Predictors : (Constant), Strt.Man				

Table 4.25: ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	15.837	1	15.837	35.505	0.000[b]
	Residual	34.037	405	.317		
	Total	49.874	406			
a. Dependent Variables: Elec.Lo						
b. Predictors: (Constant) : Strt.Man						

Table 4.26: Coefficients [a]

Model		Unstandardized Coefficients		T	Sig.
		B	Std. Error		
1	(Constant)	3.679	.652	3.960	.000
	Strt.Man	.408	.096	7.400	.000
A. Dependent Variable:Elec.Lo					

The tables above present the effect of strategic management on electronic logistics in technology companies. The simple regression analysis model represents the relationship between the independent and dependent variable. The results indicate a positive relationship between strategic management and electronic logistics of 36.7%. The model also shows that the R^2 (coefficient of determination) equals to (0.135) which means the 13.5% of the changes that occur to electronic logistics (dependent variable) are caused by strategic management (independent variable) in technology companies in Tripoli. Moreover, the table shows the outcome of the beta coefficient (β =0.408) which means that 1 unit of increase in strategic management will lead to a 0.408 increase in electronic logistics. Finally, according to the significance level (.000) which is less than (.05), the model is considered to be significant and accordingly the null hypothesis must be rejected and accept the alternative hypothesis which states that:

Strategic management has a significant effect on electronic logistics

4.6.6 Regression analysis of the effect of electronic logistics on profitability

H5: Electronic logistics have a significant effect on profitability

Table 4.27: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.318[a]	.101	.1008	.362
[a]. Predictors : (Constant), Elec.Lo				

Table 4.28: ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	19.945	1	19.945	42.187	0.000[b]
	Residual	42.326	405	.224		
	Total	62.271	406			
a. Dependent Variables: Prof						
b. Predictors: (Constant) : Elec.Lo						

Table 4.29: Coefficients [a]

Model		Unstandardized Coefficients		T	Sig.
		B	Std. Error		
1	(Constant)	2.385	.248	5.842	.000
	Elec.Lo	.327	.055	.9.957	.000
A. Dependent Variable: Prof					

The tables above indicate the effect of electronic logistics on profitability in technology companies. The simple regression analysis model represents the relationship between the independent and dependent variable. The results indicate a positive relationship between electronic logistics and profitability of 31.8%. The model also shows that the R^2 (coefficient of determination) equals to (0.101) which means the 10.1% of the changes that occur to profitability (dependent variable) are caused by electronic logistics

(independent variable) in technology companies in Tripoli. Moreover, the table shows the outcome of the beta coefficient (β =0.327) which means that 1 unit of increase in electronic logistics will lead to a 0.327 increase in profitability. Finally, according to the significance level (.000) which is less than (.05), the model is considered to be significant and accordingly the null hypothesis must be rejected and accept the alternative hypothesis which states that:

Electronic logistics have a significant effect on profitability

4.6.7 Process Macro Analysis

This analysis is conducted to determine the total, direct and indirect effects of the dependent variable (strategic management) through the mediating variables (electronic operations, electronic logistics) on the dependent variable (profitability).

H6: Strategic management has a significant effect on profitability via e-commerce (electronic operations, electronic logistics) as mediating variables

Table 4.30: Process analysis for the effect of SM on e-operations

```
Model  : 4
    Y  : Prof
    X  : Strt.Man
    M1 : Elec.Op
    M2 : Elec.Lo

Sample
Size:  407

OUTCOME VARIABLE:
 Elec.Op

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,5272      ,2781      ,0817     78,505     1,0000   405,0000      ,0000

Model
             coeff         se          t          p       LLCI       ULCI
constant     1,6966      ,5518     4,0506      ,0000      ,9995      1,7938
Strt.Man      ,5313      ,0718     8,7002      ,0000      ,4050       ,5824

**************************************************************************
```

Table 4.31: Process analysis for the effect of SM on e-logistics

```
OUTCOME VARIABLE:
 Elec.Lo

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3675      ,1350      ,3317    35,5057     1,0000   405,0000      ,0000

Model
             coeff         se          t          p       LLCI       ULCI
constant    3,6796      ,6528     3,9606      ,0000     2,5795     3,8978
Strt.Man     ,4083      ,0968     7,4002      ,0000      ,3890      ,4416
```

Table 4.32: Process analysis for the effect of SM, EO and EL on profitability

```
OUTCOME VARIABLE:
   Prof

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,4639      ,2152      ,4976    45,4906    3,0000  403,0000      ,0000

Model
             coeff         se          t          p       LLCI       ULCI
constant    2,8775      ,4136     7,3915      ,0000     2,3748     3,2201
Elec.Op      ,1639      ,0106    29,9531      ,0042      ,1316      ,2906
Elec.Lo      ,0895      ,0472     21,355      ,0088      ,0529      ,1112
Strt.Man     ,3163      ,0366     3,6453      ,0383      ,2811      ,3514
```

Table 4.33: Process analysis for the effect of SM on profitability

```
************************** TOTAL EFFECT MODEL ****************************

OUTCOME VARIABLE:
 Prof

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3498      ,1223      ,2709    51,8373     1,0000   405,0000      ,0000

Model
             coeff         se          t          p       LLCI       ULCI
constant    2,9448      ,3031     8,2946      ,0000     2,5496     3,3166
Strt.Man     ,4385      ,0205    16,9574      ,0000      ,3906      ,4713
```

Table 4.34: Total and direct effect of SM on profitability

Total effect of X on Y

Effect	se	t	p	LLCI	ULCI
,4385	,0205	16,9574	,0000	,3906	,4713

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI
,3163	,0366	3,6453	,0383	,2811	,3514

Table 4.35: Indirect effect of SM on profitability

Indirect effect(s) of X on Y

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	,1222	,0321	,1002	,1641
Elec.Op	,0871	,0215	,0577	,1210
Elec.Lo	,0351	,0191	,0109	,7351

Partially standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	,1435	,0418	,1104	,1892
Elec.Op	,0976	,0316	,0562	,1103
Elec.Lo	,0459	,0287	,0212	,0755

Completely standardized indirect effect(s) of X on Y:

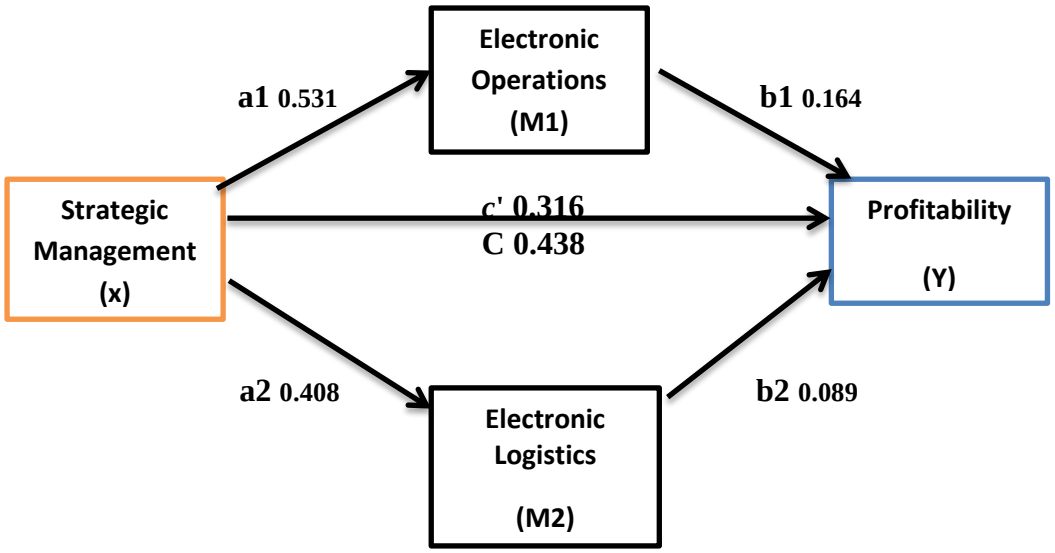
	Effect	BootSE	BootLLCI	BootULCI
TOTAL	,1016	,0401	,0917	,1301
Elec.Op	,0766	,0318	,0432	,0965
Elec.Lo	,0249	,0209	,0098	,0572

```
************************ ANALYSIS NOTES AND ERRORS ************************
Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:  5000

------ END MATRIX -----
```

Figure 4.1: The model paths



Regression analysis was used to investigate the last hypothesis of this study which contains mediating variables (electronic operations, electronic logistics). According to Hayes (2015), there are three conditions to be satisfied in order to conduct a mediation analysis. The First condition of conducting mediation analysis (the dependent variable significantly predicting the mediator) was met as the strategic management was a significant predictor of electronic operations and electronic logistics, B = .819, SE = .299, t= 8.7002, p < .05. The same implied to the other mediator (electronic logistics), B=.4083, SE=.0968, t= 7.4002, p < .05. The second condition of mediation (the independent and mediators variables significantly predict the dependent variable, as well as reducing the effect of the independent variable) was also achieved ((electronic operations: B=.1639, p < .05), (electronic logistics B=.859 P<0.5), (strategic management B=.3163, P<0.5)). The indirect effect was tested using a percentile bootstrap estimation approach with 5000 samples and 95% level of confidence implemented with the PROCESS macro Version 3.5 (Hayes, 2015). Results indicated that strategic management had a significant total effect on profitability (third condition) of .4385 (path c) and the direct effect on profitability while controlling for the mediators was .3163 (path c'). The total indirect effect was

.1222 ((paths a1b1+a2b2), electronic operations contributed for .0871 (path a1b1) while electronic logistics contributed for .0351 (path a2b2).

Since a non-zero is included in the range of the coefficients bootLLCI and bootULCI, the partial mediation variables are effective and the model is considered to be significant and accordingly, the null hypothesis must be rejected and accept the alternative hypothesis which states that:

Strategic management has a significant effect on profitability via e-commerce (electronic operations, electronic logistics) as mediating variables

Table (4.36) summarizes the hypothesis of the study and their results.

Table 4.36: Hypotheses summary

Hypothesis	Result	
	Null	Alternative
1- Strategic management ➡ Profitability	rejected	Accepted
2- Strategic management ➡ Electronic Operations	rejected	Accepted
3- Electronic Operations ➡ Profitability	rejected	Accepted
4- Strategic Management ➡ Electronic Logistics	rejected	Accepted
5- Electronic Logistics ➡ Profitability	rejected	Accepted
6- Strategic Management ➡ E-commerce ➡ Profitability	rejected	Accepted

4.7 Conclusion

This chapter focused on the analysis and empirical findings of the study. The researcher achieved a 95.63% response rate from the distributed questionnaires. To assess the reliability of the questionnaire, the researcher used The Cronbach's Alpha and the results showed that the questionnaire is reliable to measure the variables of the study. A descriptive analysis was employed on the demographic data of the respondents. In addition, descriptive statistics were implied on the measurements of variables which the researcher has targeted in the questionnaire. The chapter also presented a regression analysis to test the relationship between independent and dependent variables and findings showed significant associations. Moreover, the researcher conducted process macro to determine the relationship between the independent and the dependent variable through the mediators and findings showed that the model is appropriate and strategic management affect profitability through e-commerce.

CHAPTER 5

Conclusions and Discussions

5.1 Introduction

This chapter provides a discussion where empirical and theoretical findings are briefly presented. Afterwards, the research questions are listed as well as the achieved answers for each of the questions. Finally, this chapter provides some recommendations for business management and for future studies.

5.2 Discussion

5.2.1 Empirical Findings

This research discussed the significance of strategic management for implementing e-commerce and the factors that affect increasing profitability of operating for companies that intend to work electronically, the variables which are likely to create competitive advantages and a commercial value for the companies adopting e-commerce.

This study was conducted on technology companies adopting e-commerce in Tripoli, Libya. The dependent variable is profitability and was measured using 5 items of measure. The independent variable is strategic management and was measured using 7 items of measure. The mediating variable is e-commerce which was represented through electronic operations and electronic logistics. Electronic operations were measured using 15 items. Electronic logistics were measured using 6 items of measure.

The results from the descriptive statistics of demographic data showed that the great majority of the respondents were male with 77%. Females represented 23% of the total number of respondents. The majority of the respondents were in the age group of 25-29 with a percentage of 22.3% and Two minority age groups who are represented in (40-44) and (50<). Most of

the respondents have a bachelor degree with around 63% of the total number. The findings also showed that the majority of respondents have an experience period of 5-9 years with approximately 30 %. Related to the internal consistency of the measurement tool, the Cronbach's Alpha results for the variables were: strategic management (0.781), electronic operations (0.814), electronic logistics (0.792), and profitability (0.857).

The results from the statistical analysis for the variables showed that the respondents consider strategic management as an important aspect for the success of organizations. The findings indicated that the respondents value the analysis of the external environment to determine future risks as shown by the mean value of 4.658. As for electronic operations, the respondents showed a low level of dispersion related to their understanding of the significance of electronic operations. It is evident from the findings that the respondents consider the company's focus on reducing the cost of e-operations, with a mean of 4.528. Electronic logistics was no less of significance to the respondents as shown by the findings. The item of measure "The Company has an inventory system to know the number of sales and orders" had the highest frequency with a mean of 4.598. the highest frequency for a profitability item of the measure was associated with the positive effect of expanding operations on the number of customers, with a mean of 4.592.

The findings from the regression analysis significantly indicated a positive relationship between the variables, (strategic management on profitability 34.5%, β =0.438), (strategic management on electronic operations 52.7%, β =0.531), (electronic operations on profitability 35.7%, β =0.379), (strategic management on electronic logistics 36.7%, β =0.408), (electronic logistics on profitability 31.8%, β =0.327). The researcher also conducted a process macro to demonstrate the indirect effects of the independent variables and mediate variables on the dependent variable and it was found that strategic management association with profitability is 0.1222 higher as mediated by e-commerce, where electronic operations contributed for .0871 and electronic logistics for .0351.

5.3 Research Questions

1- What is the effect of strategic management on profitability, in technology companies adopting e-commerce?
2- Is there an effect of strategic management on electronic operations, in technology companies adopting e-commerce?
3- Do electronic operations for technology companies adopting e-commerce affect profitability?
4- What is the impact of strategic management on electronic logistics, in technology companies adopting e-commerce?
5- How far is the effect of electronic logistics in technology companies adopting e-commerce on profitability?
6- Does strategic management affect profitability via e-commerce and its variables (electronic operations, electronic logistics) in technology companies adopting e-commerce?
7- Which variable of e-commerce, electronic operations or electronic logistics has a larger effect as a mediator between strategic management and profitability?

5.4 Research Answers

1- There is a significant positive relationship between strategic management and profitability of 34.5%. The degree of change in profitability is 0.438 for every 1-unit increase in strategic management.
2- There is significantly positive correlation between strategic management and electronic operations of 52.7%, with an effect of β =0.531.
3- Electronic operations have a significant effect of 0.379 on profitability and have a positive relationship of about 36%.
4- The impact of strategic management on electronic logistics is significantly positive β =0.408, and a significant positive relationship of 36.7%.
5- The approximate significant positive impact of electronic logistics on profitably is 0.327.
6- The total indirect effect of strategic management on profitability through the variables of e-commerce (electronic operations and electronic logistics) at 95% confidence level is 0.1222.

7- Electronic operations have a greater effect as a mediator (0.0871), electronic logistics (0.0351)

5.5 Summary

This study examined the effects of strategic management for implementing e-commerce applications on profitability in technology companies adopting e-commerce in Tripoli, Libya. The study revealed that profitability is affected by strategic management, electronic operations and electronic logistics. Mainly, it showed the significance of the use of strategic management as a mechanism to implement the e-commerce applications in increasing profitability. The employees of the targeted companies, who were formed as an analysis unit of this study, agreed that the proper conduction of strategic management including the right formulation, implementation and evaluation is a key role for the success of their companies. It is consequently imperative that organizations realize the importance of strategic management in increasing their profitability.

Strategic management is an important factor in supporting technology companies adopting e-commerce in gaining profitability. The existence of a clear mission for all employees within the companies and the formulation of objectives through analyzing the companies' internal and external environment, which in turn leads to provide complete information about opportunities and threats of the external environment, the weaknesses and strengths of the internal environment. Therefore, that information is used to raise the value of the companies and their profitability.

The positive effect of strategic management on electronic operations in technology companies that adopted e-commerce can predict the future position of the company's operations. Through which it can improve the quality of products and services provided to customers, eliminate risks, reduce operations cost, improve the company's efficiency and increase customer satisfaction.

Companies adopting e-commerce have the advantage of increasing their customer relationship management. This advantage is an outcome of flexible transaction processes, comfort and ease of purchase which are key factors that contribute to increasing the volume of companies' customers.

The implementation of electronic logistics activities contributes to achieving future goals sought by technology companies that adopt e-commerce. The integrated Information technology systems play an important role in enhancing the companies' business. It provides the required information instantly, which help to perform business operations in a short time. The continuous communications between the company and stakeholders have an important role in strengthening the commercial relationship. Moreover, Building a strategic alliance helps in the success of the companies' business. Strategic management is associated with the increase of profitability through implementing e-commerce variables (electronic operations, electronic logistics) due to its qualifying characteristics that support companies to gain competitive advantage.

5.6 Recommendations and implications

5.6.1 Companies' Management

- The necessity of proper strategic management before initiating electronic projects to raise business efficiency and to avoid future failures for companies that intend to operate electronically.
- The consideration in the applications of electronic operations and electronic logistics and planning for these variables, as they have contributed to increasing the profitability of the companies.
- Transferring the operations of companies that operate traditionally to work electronically as of its role in reducing costs for companies and customers, facilitating transactions and increasing expected profit.
- Expanding electronic transactions due to its potential benefits and opportunities that e-commerce carries to companies and customers.

5.6.2 Future Studies

The researcher recommends further studies to target a greater number of populations in wider geographical areas. In addition, future studies are recommended to conduct studies on the impact of implementing electronic strategies on other determinants of the success of corporate performance such as market share, effectiveness and competitiveness. Moreover, it is

recommended to implement the study model on other different business sectors such as hotels, manufacturing, aviation and other business sectors.

5.7 Conclusion

This chapter summarized the whole results of the study through reviewing the empirical and theoretical findings. The research questions were answered accordingly to the findings obtained by the researcher. Besides, some recommendations made from the researcher's perspective for both companies' management and future studies.

REFERENCES

Abdul Gaffar, K. (2016), "Electronic Commerce: A Study on Benefits and Challenges in an Emerging Economy", *Global Journal of Management and Business Research*: *Economics and Commerce*, Vol. 16 No. 1, pp. 34-45.

Abed, S. S., Dwivedi, Y. K., & Williams, M. D. (2015). Social media as a bridge to e-commerce adoption in SMEs: A syste matic literature review. *Marketing Review*, *15*(1), 39–57.

Ahmad, A. M. B, Masri, R. B, & Lee,C.A. (2019). Future Challenges to the Entrepreneur in Relation to the Changing Business Environment. *Global Business & Management Research*, *11*(2), 197–205.

Alhorr, *H., Singh, N., & Kim, S. (2010).* Ecommerce on the global platform: strategic insights on the localization perspective*. Journal of Electronic Commerce Research, 11(1), 6–13.*

Alkhafaji, A. F. (2011). Strategic management: formulation, implementation, and control in a dynamic environment. *Development and Learning in Organizations: An International Journal*.

Alkhafaji, A.F. (2011), "Strategic Management: Formulation, Implementation, and Control in a Dynamic Environment", *Development and Learning in Organizations*, Vol. 25 No. 2.

Al-Tit, A. A. (2020). E-Commerce Drivers and Barriers and Their Impact on E-Customer Loyalty in Small and Medium-Sized Enterprises (Smes). *Business: Theory and Practice, 21*(1), 146-157.

Arbelo, A., Arbelo-Pérez, M., & Pérez-Gómez, P. (2020). Profit Efficiency as a Measure of Performance and Frontier Models: A Resource-

Based View. BRQ Business Research Quarterly. https://doi.org/10.1177/2340944420924336

Aulová, R., Pánková, L., & Rumánková, L. (2019). Analysis of Selected Profitability Ratios in the Agricultural Sector. Agris On-Line Papers in Economics & Informatics, 11(3), 3–12.

Azad, A. K. M., Islam, M. K., & Hoque, M. S. (2014). An analysis of popularity of Consumer to Consumer websites. International Journal of Advanced Computer Research, 4(16), 828–833.

Azhar, A., Ikram, S., Rashid, S., & Saqib, S. (2013). The role of leadership in strategy formulation and implementation. *International journal of management & organizational studies*, *1*(2).

Balaraman, P., & Kosalram, K. (2012). E-commerce evaluation and e business trends. *International Journal of Information Engineering and Electronic Business*, *4*(5), 9.

Baršauskas, P., Šarapovas, T., & Cvilikas, A. (2008). The evaluation of e-commerce impact on business efficiency. Baltic Journal of Management, 3(1), 71-91.

Bhattacharya, S., & Mishra, B. B. (2015). Evolution, growth and challenges in E-commerce Industry: A case of India. *Sumedha Journal of Management*, *4*(1), 45-58.

Bi, R., Davison, R. M., & Smyrnios, K. X. (2017). E-business and fast growth SMEs. Small Business Economics, 48(3), 559–576

Bonett, D. G., & Wright, T. A. (2015). Cronbach's alpha reliability: Interval estimation, hypothesis testing, and sample size planning. *Journal of Organizational Behavior*, *1*, 3.

Bowen, G., Appiah, D., & Okafor, S. (2020). The Influence of Corporate Social Responsibility (CSR) and Social Media on the Strategy Formulation Process. *Sustainability*, *12*(15), 6057.

Brierley, J. A. (2016). An examination of the use of profitability analysis in manufacturing industry. International Journal of Accounting, Auditing and Performance Evaluation, 12(1), 85.

Brui, O. (2018). Implementation of strategic management based on the balanced scorecard in a university library. *Library Management, 39*(8/9), 530-540.

Burja, C. (2011). Factors influencing the company's profitability, Annales Universitatis Apulensis Series Oeconomica, Vol. 13 No. 2, pp. 215-224.

Apăvăloaie, E.-I. (2014). The Impact of the Internet on the Business Environment. Procedia Economics and Finance, 15, 951-958.

Chang, C. (2017). An Empirical Analysis of Quality, Productivity and Profitability. Global Journal of Accounting and Finance, 2, 10.

Chen, Z., Harford, J., & Kamara, A. (2018). Operating Leverage, Profitability, and Capital Structure. Journal of Financial and Quantitative Analysis, 54(1), 369-392.

Chong, W. K., Bian, D., & Zhang, N. (2015). E-marketing services and e-marketing performance: The roles of innovation, knowledge complexity and environmental turbulence in influencing the relationship. Journal of Marketing Management, 32(1-2), 149-178.

Choshin, M., & Ghaffari, A. (2017). An investigation of the impact of effective factors on the success of e-commerce in small-and medium-sized companies. *Computers in Human Behavior*, *66*, 67-74.

Cowell, F. A., & Flachaire, E. (2015). Statistical Methods for Distributional Analysis. *Handbook of Income Distribution,* 359-465

Cristiana, P. Z., & Anca, B. (2013). New Perspectives on Strategic Management Process. Annals of the University of Oradea, *Economic Science Series, 22(1), 1573–1580.*

Dovhan L. Ye., Karakai Yu. V. & Artemenko L. P. (2011). *Strategic management. 2nd edition. Kyiv: Center of education literature.*

Drenovac, A. Ž., & Drenovac, B. Ž. (2018). Project Profitability Analysis. Military Technical Courier / *Vojnotehnicki Glasnik, 66(1), 154–168.*

Duch-Brown, N., Grzybowski, L., Romahn, A., & Verboven, F. (2017). The impact of online sales on consumers and firms. Evidence from consumer electronics. International Journal of Industrial Organization, 52, 30–62.

Einav, L., Farronato, C., & Levin, J. (2016). Peer-to-peer markets. *Annual Review of Economics*, *8*, 615-635.

Elbanna, S. (2009). Determinants of strategic planning effectiveness: extension of earlier work. *Journal of Strategy and Management,* Vol. 2 No. 2, pp. 175-187.

Elbeltagi, I., Hamad, H., Moizer, J., & Abou-Shouk, M. A. (2016). Levels of Business to Business E-Commerce Adoption and Competitive Advantage in Small and Medium-Sized Enterprises: A Comparison Study Between Egypt and the United States. *Journal of Global Information Technology Management, 19(1), 6-25.*

Elia, S., Giuffrida, M., & Piscitello, L. (2019). DOES E-COMMERCE FACILITATE OR COMPLICATE SMEs' INTERNATIONALISATION? *Informacion Comercial Espanola Revista de Economia*, *909*, 61–73.

Elommal, N., Manita, R., & Chaney, D. (2019). Measuring exchange norms and its impact on satisfaction in a B2C context. *International Journal of Market Research*, *61*(3), 302–319.

Fauska, P., Kryvinska, N., & Strauss, C. (2013). The role of E-Commerce in B2B markets of goods and services. *International Journal of Services*, 5(1/2), 41–71.

Fruhling, A. L., & Digman, L. A. (2000). The impact of electronic commerce on business-level strategies. *Journal of Electronic Commerce Research*, *1*(1), 13.

Glenn A. Metts. (2007). Measuring the effectiveness of managerial action in SMEs : An empirical analysis of management response to industry competitive forces*. Management Research News, 30(12), 892–914.*

Gökmen, A. (2011). Virtual business operations, e-commerce & its significance and the case of Turkey: Current situation and its potential. *Electronic Commerce Research, 12(1), 31-51.*

Gradinaru, P., & Gradinaru, D. (2018). Approaching Model of the Strategic Management Process of the Company*. Scientific Bulletin - Economic Sciences / Buletin Stiintific - Seria Stiinte Economice, 17(3), 93–100.*

Gupta, A. (2014). E-Commerce: Role of E-commerce in Today's Business. *International Journal of Computing and Corporate Research*, *4*(1), 1-8.

Guven, B. (2020). The integration of strategic management and intrapreneurship: Strategic intrapreneurship from theory to practice.*Business and Economics Research Journal*, 11(1), 229-245.

Harafonova, O. I. (2016). Strategic Aspects of Process of Management Changes on Enterprise*. Scientific Bulletin of Polissia, 8(4), 253–256.*

Harvey, K. (2014). Logistics strategies for global businesses*. International Journal of Physical Distribution & Logistics Management, 23 (4): 12-23.*

Hayes, A. F. (2015). An index and test of linear moderated mediation. *Multivariate behavioral research*, *50*(1), 1-22.

Hennig-Thurau, T., & Hansen, U. (Eds.). (2013). Relationship marketing: Gaining competitive advantage through customer satisfaction and customer retention. Springer Science & Business Media.

Hill, C. W., Jones, G. R., & Schilling, M. A. (2014). Strategic management: Theory & cases: An integrated approach. Cengage Learning.

Hornungová, J. (2017). Nonfinancial Performance Evaluation As Significant Area Of Strategic Business Management. *Business: Theory and Practice, 18*(0), 71-78.

Hua, N., Morosan, C., & Defranco, A. (2015). The other side of technology adoption: Examining the relationships between e-commerce expenses and hotel performance*. International Journal of Hospitality Management, 45, 109-120.*

Indris S. & Primiana I. (2015) Internal and External Environment Analysis on the Performance of Small and Medium Industries (SMES) In Indonesia. *International journal of scientific & technology research, 4(4), 188-196.*

Ji, S., Wang, Y., & Xia, H. (2011). Research on integrated development model of wholesale market's electronic commerce logistics*. 2011 International Conference on E-Business and E-Government (ICEE). doi:10.1109/icebeg.2011.5886899*

Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2015). Likert Scale: Explored and Explained. *Current Journal of Applied Science and Technology*, *7*(4), 396-403.

Kao, D., & Decou, J. (2014). A strategy-based model for e-commerce planning. *Industrial Management & Data Systems, 103(4), 238-252.*

Karagozoglu, N., & Lindell, M. (2014). Electronic commerce strategy, operations, and performance in small and medium-sized enterprises. *Journal of Small Business and Enterprise Development, 11(3), 290-301.*

Khashei, V., Heidari, H., & Pourabbasi, A. (2017). Evaluation of strategic risks in strategy execution of reform and innovation packages in medical education, a practical model. Teb Va Tazkiye, 26(1), 33-44

Kooli, K., Ben Mansour, K., & Rizky, U. (2014). Determinants of online trust and their impact on online purchase intention. *International Journal of Technology Marketing*, 9(3), 305-319.

Köseoglu, M. A., Altin, M., Chan, E., & Aladag, O. F. (2020). What are the key success factors for strategy formulation and implementation? Perspectives of managers in the hotel industry. *International Journal of Hospitality Management*, *89*, 102574.

Kourouthanassis, P. E., & Giaglis, G. M. (2012). Introduction to the special issue mobile commerce: the past, present, and future of mobile commerce research. *International Journal of Electronic Commerce*, *16*(4), 5-18.

Kreindler, M. L; Maislish, R; Wang, S. (2014). An empirical test of the impact of electronic commerce on Organizations*.* *Human Systems Management, 23 (1): 59-68.*

Kumar, R. (2011) Research Methodology: A Step-by-Step Guide for Beginners. 3rd Edition. Sage, New Delhi.

Laudon, K.C., & Traver, C. G. (2014). E-Commerce Essentials. 1 st Edition. NJ: Pearson Education.

Li, B. and Chen, S. (2019), “Corporate-level strategy and firm performance: evidence from China”, Chinese Management Studies, doi: 10.1108/CMS-10-2018-0715.

Li, G., Wang, F., & Long, J. (2013). Research on the electronic commerce platform building and applications based on the small and medium sized third party logistics distribution center. 2013 10th *International Computer Conference on Wavelet Active Media*

Technology and Information Processing (ICCWAMTIP). doi:10.1109/iccwamtip.2013.6716653

Liang, T., Lin, C., & Chen, D. (2012). Effects of electronic commerce models and industrial characteristics on firm performance*. Industrial Management & Data Systems, 104(7), 538-545.*

Lorca, P., Andrés, J. D., & García-Diez, J. (2019). Impact of E-Commerce Sales on Profitability and Revenue. The Case of the Manufacturing Industry. *Engineering Economics, 30(5), 544-555.*

Manzoor, A. (2017). Critical Success Factors for E-Business in Developing Countries. *Innovations in E-Systems for Business and Commerce, 65-94.*

Mawela, T. (2017). Exploring the role of social media in the G2C relationship: A South African perspective. *Information Development*, *33*(2), 117-132.

McGee, J., Thomas, H. and Wilson, D.C. (2010) Strategy:Analysis and Practice, McGraw-Hill.

Milton, B. (2017). 'The successful management of a small logistics company'. *International Journal of Physical Distribution & Logistic Management, 33 (9): 825-842.*

Miščević, G., Tijan, E., Žgaljić, D., & Jardas, M. (2018). Emerging trends in e-logistics. In *Proceedings of the MIPRO*.

Němcová, Z., & Dvořák, J. (2011). The Model of E-Commerce Strategy Focused on Customers. Economics Management*, 16, 1292–1297.*

Nunes, P. M., & Serrasqueiro, Z. (2015). Profitability determinants of Portuguese knowledgeintensive business services: Empirical evidence using panel data models. *Applied Economics Letters*, 22(1), 51–56.

Ocloo, C. E., Xuhua, H., Akaba, S., Shi, J., & Worwui-Brown, D. K. (2020). The Determinant Factors of Business to Business (B2B) E-

Commerce Adoption in Small-and Medium-Sized Manufacturing Enterprises. *Journal of Global Information Technology Management, 1–26*

Onyusheva, I. V., Naranovich, A. I., & Zhussupova, Z. M. (2018). The Global Electronic Commerce Development and Its Impact on Global Economy*. Central Asian Economic Review, 3(121), 123–131*

Padash, A., & Ghatari, A. R. (2020). Toward an Innovative Green Strategic Formulation Methodology: Empowerment of Corporate Social, Health, Safety and Environment. *Journal of Cleaner Production, 261*, 121075.

Pant, P. (2019). SWOT Analysis: A Powerful Tool of Strategic Competitive Management Effectiveness. *Adhyayan: A Journal of Management Sciences*, *9*(2), 31–37.

Pervan, M., Mlikota, M. (2013) What Determines The Profitability of Companies: Case of Croatian Food and Beverage Industry. *Economic Research-Ekonomska Istraživanja*, 26(1): 277-286

Rajnoha, R., Lesníková, P., Štefko, R., Schmidtová, J., & Formánek, I. (2019). Transformations in Strategic Business Planning in the Context of Sustainability and Business Goals Setting. *Transformations in Business & Economics*, *18*(2), 44–66.

Rashidirad, M., Salimian, H., Soltani, E., & Fazeli, Z. (2017). Competitive strategy, dynamic capability and value creation: Some empirical evidence from the UKtelecommunications firms*. Strategic Change*, 26(4), 333–342

Rothaermel, F. T. (2012). Strat.Mgmt.: Concepts and Cases. *McGraw-Hill/Irwin*, p. 5-6

Rothaermel, F. T. (2016). *Strategic management: concepts* (Vol. 2). *McGraw-Hill Education.*

Saban, K. A., (2015), “Strategic preparedness: a critical requirement to maximize e-commerce investments”, *Electronic Markets*, 11 (1): 26-36.

Satar, N. S., Dastane, O., & Yusnorizam, M. (2019). Customer Value Proposition for E-Commerce: A Case Study Approach. *International Journal of Advanced Computer Science and Applications, 10*(2).

Sattar, M., & Briotta, R. J. (2013). Financial Statement and Functional Level Strategies. *Proceedings for the Northeast Region Decision Sciences Institute (NEDSI)*, 402.

Schniederjans, M. J., Cao, Q., & Triche, J. H. (2013). *E-commerce operations management*. World Scientific Publishing Company.

Seifzadeh, P., & Rowe, W. G. (2019). The role of corporate controls and business-level strategy in business unit performance. *Journal of Strategy and Management*. doi:10.1108/jsma-10-2018-0114

Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons.

Shanshan, D., & Lei, Z. (2010). Study on Impact of e-Commerce Development on Enterprises Operation and Management. *2010 International Conference on Management of E-Commerce and E-Government*. doi:10.1109/icmecg.2010.60

Shatilo, O. (2019). The Impact of External and Internal Factors on Strategic Management of Innovation Processes at Company Level*. Ekonomika / Economics, 98(2), 85–96.*

Sheikh, S. M., & Basti, M. (2015). Customer Satisfaction in Business to Consumer (B2C) E-commerce: A Comparative Study of Turkey and Pakistan. *Eurasian Journal of Business & Economics*, *8*(16), 73–100.

Shemi, A. P., & Procter, C. T. (2013). Challenges of e-commerce adoption in SMEs: An interpretive case study of Botswana.

Shi, W. (2012). The Contribution of Organizational Factors In The Success Of Electronic Government Commerce*. International Journal of Public Administration, 25(5), 629-657.*

Shin, N. (2011). Strategies for competitive advantage in electronic commerce*. Journal of Electronic Commerce Research, 2 (4): 164-171.*

Sigurðardóttir, A. G., Hotait, A., & Eichstädt, T. (2019). Buyer and Seller Differences in Business-to-Business Negotiations. *Negotiation Journal*, 35(2), 297–331.

Subramani, M., & Walden, E. (2011). The Impact of E-Commerce Announcements on the Market Value of Firms*. SSRN Electronic Journal. doi:10.2139/ssrn.269668*

Successful strategies for e-commerce : The case of Pandora bookstore in Turkey. (2008). *Strategic Direction*, *24*(3), 24-26.

Suryanarayana Reddy, B. (2017). Evolution, Growth and Challenges in E-commerce Industry :A Case of India. *ITIHAS - The Journal of Indian Management, 7(2), 43–50.*

Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education*, *48*(6), 1273-1296.

Tulsian, D. M. (2014). Profitability Analysis (A comparative study of SAIL & TATA Steel)*. IOSR Journal of Economics and Finance, 3(2).*

Turban, E., Outland, J., King, D., Lee, J. K., Liang, T., & Turban, D. C. (2018). Electronic Commerce 2018: A Managerial and Social Networks Perspective. *Cham: Springer International Publishing.*

Vatavu, S. (2014). The determinants of profitability in companies listed on the Bucharest stock exchange*. Annals of the University of Petrosani Economics*, 14, 329–338.

Wang, S., Cavusoglu, H., & Deng, Z. (2016). Early mover advantage in e-commerce platforms with low entry barriers: The role of customer relationship management capabilities. *Information & Management, 53(2), 197-206.*

Watson, M. & B. Nossuli (2015). The Road Trip to Profitability: Sales Productivity and Loan Officer Turnover are Key Challenges Facing Lenders As They Seek to Engineer Sustained Profitability*. Mortgage Banking, November, 76(2), 56-63.*

Westland, J. C. (2020). Introduction to the special issue: Electronic commerce in social networks*. Electronic Commerce Research, 20(1), 1-1.*

Wheelen, T. L and Hunger, J. D. (2010) Concepts in Strategic Management & Business Policy*, Prentice Hall, London.*

Wheelen, T. L., Hunger, J. D., Hoffman, A. N., & Bamford, C. E. (2017). Strategic management and business policy (p. 55). Boston, MA: pearson.

Xuhua, H., Elikem, O. C., & Akaba, S. (2019). Effects of business to business e-commerce adoption on competitive advantage of small and medium-sized manufacturing enterprises*. Economics & Sociology, 12(1), 80-99.*

Yin, R. (2017). Case Study Research and Applications: Design and Methods 6th Edition. *SAGE Publications*.

Yong-Mei, Z., & Li, M. (2010). The optimal path of logistics distribution in electronic commerce. *The 2nd International Conference on Information Science and Engineering. doi:10.1109/icise.2010.5689194*

Yong-Mei, Z., Li, M., & Lan, M. (2010). Research and Implementation of Electronic Commerce Logistics Distribution Management. 2010 *International Conference on E-Business and E-Government. doi:10.1109/icee.2010.528*

Zhu, K., & Kraemer, K. (2012). e-Commerce Metrics for Net-Enhanced Organizations: Assessing the Value of e-Commerce to Firm Performance in the Manufacturing Sector*. Inf. Syst. Res., 13, 275-295.*

Zikmund, W.G., Barry, J.B., Jon, C.C., & Mitch, C. (2010). *Business Research Methods (8th ed.)*. United States of America: *South Western Cengage Learning*

Internet sources

Ministry of Communication and Information in Libya www.cim.gov.ly accessed 2/10/2020

APPENDIX

Appendix 1: Questionnaire

Near East University

Graduate School of Social Sciences

Department of International Business

Dear Responder,

This questionnaire aims to complete a study conducted by the researcher under the title, **The Effect of Strategic Management for Implementing E- Commerce on Profitability: An applied study on the technology companies adopting E-Commerce in Tripoli, Libya.** Please fill this questionnaire that designed to conduct the study. All data will be used for scientific research purposes and will be treated with strict confidentiality.

Thank you for your cooperation

Section I

Please answer the questions by placing a (X) next to the answer that suits you.

1. **Gender**

1. Male ☐ Female ☐

2. **Age**

Less Than 25 ☐ From 25 - 29 ☐ From 30 - 34 ☐

From 35 - 39 ☐ From 40 - 44 ☐ From 45 - 49 ☐

More than 50s ☐

3. **Educational level**

Diploma and below ☐ Bachelor ☐ Master ☐ PhD ☐

4. **Years of Experience**

Less than 1 year ☐ From 1 - 4 years ☐ From 5 – 9 years ☐

From 10 - 14 years ☐ From 15 – 19 years ☐ From 20 – 24 years ☐

25 or More years ☐

Section II

Please answer the questions by placing an (X) next to the answer you think is appropriate for you.

I completely disagree	I disagree	I neither agree nor disagree	I agree	I completely agree
1	2	3	4	5

Strategic management

			1	2	3	4	5
1	Our company has a clear vision of the company's mission.						
2	Our company aspires to deliver the company's mission to the employees to raise the performance efficiency.						
3	The company analyzes the external environment to determine the risks it may expose to in the future.						
4	The company analyzes the external environment to discover the available opportunities.						
5	The management monitors the internal environment of the company to discover its strengths and weaknesses.						
6	Long-term goals are formulated based on the environmental analysis of the company.						
7	The goals of the company are clear, and everyone seeks to achieve them.						

Electronic commerce

Electronic operations

			1	2	3	4	5
8	The company diversifies the products/services it offers via the internet.						
9	The customer easily finds the products/ services offered by the company on the internet.						
10	The company provides convenience to the customer in online purchasing.						
11	The costs of shipping and delivery of products/ services are relatively low.						
12	The company focuses on reducing the cost of product/ service provided on the company's website.						
13	The company hires via the internet to cut costs.						
14	The company offers highly valued products/ services via the internet.						
15	The company has a security system that only enables users to access data and information.						

16	The company monitors the production process to reduce errors.						
17	The company is equipped with advanced programs for ordering process on the company's website.						
18	The company provides complete information about the products/ services on the website.						
19	The company uses online advertising to increase sales.						
20	The company has multiple sales channels on its website.						
21	The company takes customer feedback into account when designing products/ services.						
22	The company responds to customer requests when designing products/ services.						

Electronic logistics

23	The company has strategic alliances with suppliers through the internet.						
24	There is a continuous communication with the stakeholders via the internet.						
25	The company provides information instantly.						
26	The company has expert employees in information technology.						
27	The company has an inventory system to know the number of sales and orders.						
28	The company has expert employees in information technology.						

Profitability

29	Diversity in the nature of the products/ services provided leads to the repeat purchases rate by customers						
30	The increase in the geographical distribution of the company's offices and branches lead to an increase in the number of customers requesting for the products/ services.						
31	There is an increase in the number of customers compared to competitors in the same sector.						
32	The new products/ services innovations in the company have increased its profitability.						
33	There is an increase in the company's sales growth compared to the competitors in the same sector.						

Appendix 2: Name of companies where data collected from their employees

NO.	Name of companies
1	GENERAL POST AND TELECOMMUNICATIONS COMPANY
2	DIGIX COMPANY FOR DIGITAL BUSINESS SOLUTIONS LTD
3	MEDITERRANEAN COAST FOR INFORMATION TECHNOLOGY
4	ANIS TECHNOLOGY CENTER
5	LIBYA GUIDE INFORMATION TECHNOLOGY
6	AMADEUS LIBYA
7	EBKAR TECHNOLOGY & MANAGEMENT SOLUTIONS
8	ARTISANS FOR INFORMATION TECHNOLOGY
9	EBTEKAR INFORMATION SYSTEMS LTD
10	MASADER INFORMATION SERVICES CO. LTD
11	MODERN SYSTEMS & TECHNOLOGY
12	INTEGRATED SOLUTIONS FOR OPERATION, MAINTENANCE AND ADMINISTARTION SERVICES CO. LTD
13	OCEAN TECHNOLOGY

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YAKIN DOĞU ÜNİVERSİTESİ

BİLİMSEL ARAŞTIRMALAR ETİK KURULU

19.01.2021

Dear Taha Said Saleh Kaber

Your application titled **"The Effect of Strategic Management for Implementing E-Commerce on Profitability: An Applied Study on the Technology Companies Adopting E-Commerce in Tripoli, Libya"** with the application number YDÜ/SB/2020/824 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

Direnc Kanol

Note: If you need to provide an official letter to an institution with the signature of the Head of NEU Scientific Research Ethics Committee, please apply to the secretariat of the ethics committee by showing this document.