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MIDDLE EAST UNIVERSITY
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The Impact of Digital Entrepreneurship in Achieving Competitive Advantage: An Applied Study in Micro and Small Enterprises Operating in King Hussein Business Park

تأثير الريادة الرقمية في تحقيق الميزة التنافسية: دراسة تطبيقية على المنشآت متناهية الصغر والصغيرة العاملة في مجمع الملك حسين للأعمال

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Thesis Submitted as Partial Fulfillment of the Requirements for Master Degree in E-Business

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Authorization

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Examination Committee's Decision

This thesis entitled "**The Impact of Digital Entrepreneurship in Achieving Competitive Advantage: An Applied Study in Micro and Small Enterprises Operating in King Hussein Business Park**" was successfully defended and approved on 21th –Jan. -2024.

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Dedication

I dedicate this thesis to my beloved country, Jordan. I would like to thank my parents who have been supporting and guiding me throughout the years of my life to reach this level. My thanks also go to my friends who have been always on my side motivating me to complete what I have started.

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The Impact of Digital Entrepreneurship in Achieving Competitive Advantage: An Applied Study in Micro and Small Enterprises Operating in King Hussein Business Park

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Abstract

The study aimed to examine the impact of digital entrepreneurship in achieving competitive advantage regarding micro and small enterprises operating at King Hussein Business Park. The study attempted to answer the following questions, first to determine the level of application in digital entrepreneurship as well as competitive advantage, ferthermore to investgate the impact of digital entrerprenurship on competitive advantage in micro and small enterprisises operating in King Hussein Busniess Park.

This study employed a descriptive analytical approach to investigate the impact of digital entrepreneurship on gaining a competitive advantage among micro and small enterprises operating at King Hussein Business Park. To fulfill the study objectives, a questionnaire was distributed to assess the impact of digital entrepreneurship in achieving a competitive advantage. The study sample was a complete census, encompassing 51 individuals, including managers, owners, and employees from 45 micro and small enterprises located within King Hussein Business Park. This sample selection was deemed comprehensive due to its direct alignment with the researcher's chosen methodologies and procedures. The questionnaire was distributed, and data was analyzed through using (SPSS) and the multiple linear regression analysis.

The study led to many conclusions, most importantly, that enterprises that adopted digital entrepreneurship demonstrated a positive impact on achieving competitive advantage regarding micro and small enterprises operating at King Husain Business Park with an R square of 0.463. Additionally, the study presented several recommendations, the most of which is to foster a comprehensive transformation strategy that includes ongoing digital knowledge development, promotes a digital entrepreneurial culture emphasizing innovation, and incorporates effective mechanisms for digital finance to ensure sustainability for competitive advantage.

Keywords: **Digital Entrepreneurship, Competitive Advantage, Micro And Small Enterprises.**

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إشراف

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الملخّص

هدفت هذه الدراسة إلى التعرف على تأثير الريادة الرقمية في تحقيق الميزة التنافسية على المنشآت متناهية الصغر والصغيرة العاملة في مجمّع الملك حسين للأعمال. وحاولت الدراسة الإجابة على الأسئلة التالية: أولاً تحديد مستوى التطبيق في ريادة الأعمال الرقمية والميزة التنافسية، ثم بحث تأثير ريادة الأعمال الرقمية على الميزة التنافسية في المنشآت متناهية الصغر والصغيرة العاملة في مجمّع الملك حسين للأعمال.

استخدمت هذه الدراسة المنهج الوصفي التحليلي لمعرفة تأثير ريادة الأعمال الرقمية في اكتساب الميزة التنافسية بين المنشآت متناهية الصغر والصغيرة العاملة في مجمع الملك الحسين للأعمال. لتحقيق أهداف الدراسة تم توزيع استبانة لتقييم تأثير ريادة الأعمال الرقمية في تحقيق الميزة التنافسية. وكانت عينة الدراسة عبارة عن مسح شامل، شملت 51 فرداً، من بينهم مديرين وأصحاب وموظفين من 45 منشأة متناهية الصغر وصغيرة تقع ضمن مجمع الملك الحسين للأعمال. تم اعتبار اختيار العينة هذا شاملاً نظرًا لمواءمته المباشرة مع المنهجيات والإجراءات التي اختارها الباحث. وتم توزيع الاستبانة وتحليل البيانات باستخدام برنامج (SPSS) وتحليل الانحدار الخطي المتعدد.

وتوصلت الدراسة إلى العديد من الاستنتاجات أهمها أن المؤسسات التي تبنت ريادة الأعمال الرقمية أظهرت أثراً إيجابياً في تحقيق الميزة التنافسية فيما يتعلق بالمنشآت الصغيرة ومتناهية الصغر العاملة في مجمع الملك الحسين للأعمال و كانت نسبة معامل التحديد 0.463. بالإضافة إلى ذلك، قدمت الدراسة العديد من التوصيات، أهمها تعزيز استراتيجية التحول الشامل التي تشمل التطوير المستمر للمعرفة الرقمية، وتعزيز ثقافة ريادة الأعمال الرقمية مع التركيز على الابتكار، وتضمين آليات فعالة للتمويل الرقمي لضمان الاستدامة للميزة التنافسية.

الكلمات المفتاحية: ريادة الأعمال الرقمية، الميزة التنافسية، المؤسسات الصغيرة ومتناهية الصغر.

CHAPTER ONE
Study Background and Significance

1.1 Introduction

A revolutionary wave has broken upon the modern corporate environment, changing the entrepreneurial environment, due to the enormous impact of digital technology. Ubiquitous computing, internet connectivity, digital gadgets, big data, artificial intelligence, and digital platforms have collectively birthed what is now recognized as the digital revolution (Cavallo et al., 2019; Coyle, 2017). Within this transformative wave, entrepreneurship has undergone a metamorphosis, characterized by increased fluidity and porousness in entrepreneurial processes, rendering outcomes more malleable, extendable, and modifiable (Recker & Von Briel, 2019).

Digital Entrepreneurship, characterized by the integration of digital technologies into entrepreneurial practices, stands as an evolving area of study with increasing research interest. This integration has not only facilitated the emergence of new entrepreneurial ventures but has also reshaped the dynamics of competition (Cavallo et al., 2019). Despite being in its infancy, the study of Digital Entrepreneurship has garnered acknowledgment, with a call for further exploration and understanding (Nambisan et al., 2019; Sussan). The urgency of this exploration is underscored by the accelerated digitalization of the global economy propelled by the COVID-19 epidemic, highlighting the critical need to adjust to this changing environment (Bloom et al., 2020).

Micro and small businesses, especially in the wake of the pandemic, grapple with formidable financial challenges and heightened competition from the surge of online stores with cost-efficient operations. Survival and continuity demand strategic responses, emphasizing the need for innovation, particularly in the field of Digital Entrepreneurship

and information technology. Entrepreneurship, at its core, involves the capacity and ambition to organize a unique venture, coupled with a willingness to take risks and the process of creating something new and valuable (Saoura et al., 2021).

Digital Entrepreneurship extends beyond the creation of new ventures. It encapsulates the transformation of traditional businesses into digital formats aligned with contemporary developments, enhancing business flexibility through new and existing projects fueled by cutting-edge digital technologies. This transformation is particularly evident in the concentration on digital commerce, a branch of e-commerce that identifies enterprises offering digital services and products (Ilyas et al., 2023).

The competitive advantage afforded by Digital Entrepreneurship is fundamental. It guides organizations in a targeted and continuous manner, shaping their operational environment by identifying and exploiting entrepreneurial opportunities oriented toward innovation and development. This strategic approach, rooted in entrepreneurial principles, allows organizations to differentiate themselves, avoiding intense conflict and competition by offering unique, creative products and services in the market (Zaheer et al., 2019).

In light of this, the primary objective of this study is to scrutinize the impact of Digital Entrepreneurship on achieving competitive advantage within micro and small enterprises operating at King Hussein Business Park. Through an in-depth exploration of these dynamics, the study aims to furnish the researcher with insights to formulate practical suggestions grounded in the variables under consideration.

1.2 Problem Statement

To identify the problem of the study from practical perspective an exploratory interviews was conducted regarding micro and small enterprises operating at king Hussain Business Park.

Micro and small enterprises (MSEs) at King Hussein Business Park in Amman are facing a serious issue in obtaining and keeping a competitive advantage in a continuously changing environment. Consequently, the researcher has conducted an exploratory interview with 5 owners and managers at king Hussain Business Park, in order to find out what difficulties and problems these enterprises are facing.

They stressed out that despite the fact that they have the ability to make a substantial contribution to the local economy, many MSEs fail to differentiate themselves and compete effectively in this dynamic industry. This issue originates from a lack of resources and technology, both of which limit their capacity to recognize and capitalize on chances for competitive advantage. Furthermore, MSEs are facing intense competition from both local and international players, making it critical to recognize the potential of digital entrepreneurship as a solution. An assessment of the barriers and opportunities for micro and small enterprises in King Hussein Business Park to enhance their competitive advantage through digital initiatives is critical. Embracing digital entrepreneurship may assist these enterprises to overcome existing hurdles and survive in the competitive marketplace by leveraging technology, online marketing, e-commerce, and data-driven decision-making. This shift toward Digital Entrepreneurship could not only help MSMEs compete more successfully, but it could also contribute considerably to the region's economic growth.

1.3 Study's Objectives

The primary goal of this study was to investigate digital entrepreneurship in Jordanian micro and small enterprises, as well as its ability to achieve competitive advantage. The study investigates the variables that affects digital entrepreneurship, and how micro and small enterprises adjust their strategies in order to attract people with knowledge and competencies in order to benefit from the application of digital entrepreneurship, the objectives are:

1. To provide a theoretical framework of digital entrepreneurship and competitive advantage based on previse related literature.
2. To identify the level of application of digital entrepreneurship and competitive advantage in micro and small enterprises operating at king Hussain Business Park.
3. To identify the impact of digital entrepreneurship terms of (digital knowledge, digital business environment, digital finance, digital leadership, and digital entrepreneurial culture) in achieving competitive advantage terms of (cost, quality, and flexibility) in micro and small enterprises operating at king Hussain Business Park.

1.4 Study's Questions

The problem statement can be recognized by answering the following questions:

1. What is the level of application of digital entrepreneurship in micro and small enterprises operating at king Hussain Business Park?
2. What is the level of competitive advantage in micro and small enterprises operating at king Hussain Business Park?
3. Is there an impact of digital entrepreneurship in achieving competitive advantage in micro and small enterprises operating at king Hussain Business Park?

1.5 Study's Hypotheses

Based on the problem statement and Literature review; the following hypotheses were proposed:

H01: There is no statistically significant impact at (α=0.05) of digital entrepreneurship with its dimensions (digital knowledge, digital business environment, digital finance, digital leadership, and digital entrepreneurial culture) collectively in achieving competitive advantage in micro and small enterprises operating at king Hussain Business Park.

The following sub-hypotheses were developed from main hypothesis:

H0 1.1: There is no statistically significant impact at (α = 0.05) of digital knowledge in achieving competitive advantage in micro and small enterprises operating at King Hussain Business Park**.**

H0 1.2: There is no statistically significant impact at (α = 0.05) of digital business environment in achieving competitive advantage in micro and small enterprises operating at King Hussain Business Park.

H0 1.3: There is no statistically significant impact at (α = 0.05) of digital finance in achieving competitive advantage in micro and small enterprises operating at King Hussain Business Park

H0 1.4: There is no statistically significant impact at (α = 0.05) of digital leadership in achieving competitive advantage in micro and small enterprises operating at King Hussain Business Park.

H0 1.5: There is no statistically significant impact at (α=0.05) of digital entrepreneurial culture in achieving competitive advantage in micro and small enterprises operating at King Hussain Business Park.

1.6 Study Model

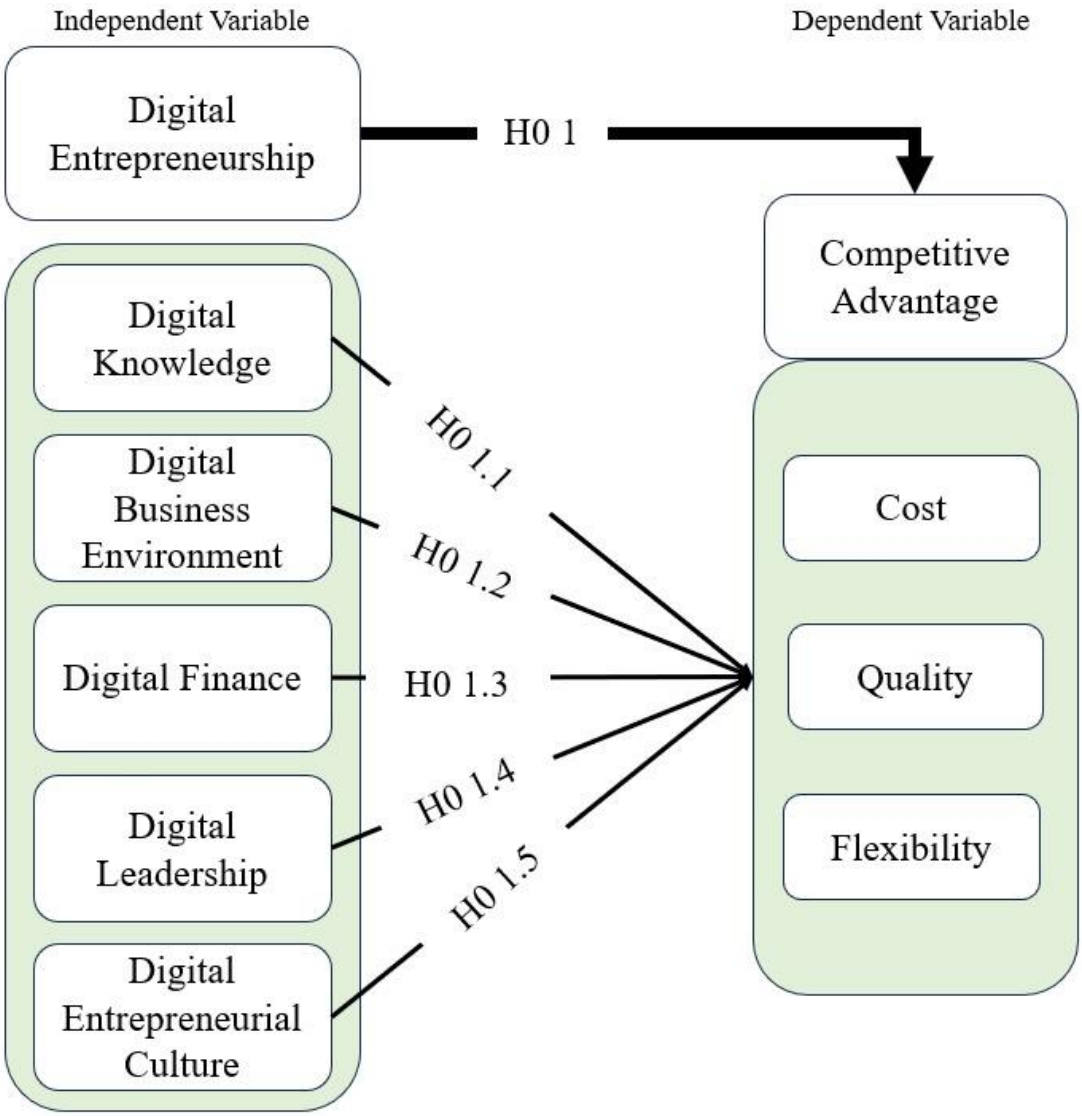

Fig. 1.1: The Study Model

The conceptual frame work was developed based on the following studies:

Independent variable: (Baierl et al., 2019) (Elia et al., 2020)

Dependent Variable: (Masyhuri, 2023), (Cahyono et al., 2023)

1.7 Study Significance

Despite an increase in entrepreneurship studies in Jordan's private and public sectors in recent years, little attention has been dedicated to Jordanian micro and small enterprises, especially Digital Entrepreneurship.

Theoretical importance

The theoretical significance of this study shows the landscape of digital entrepreneurship among these Jordanian enterprises, as well as the problems and challenges that hinders their success. Our study contributes to literature on digital entrepreneurship by doing field study utilizing quantitative approaches, specifically descriptive and analytical, to answer questions, test hypotheses, and interpret them.

Practical importance

The practical significance of this study is to demonstrate the use of digital entrepreneurship principles in connection to micro and small businesses, as well as workers' abilities to do so. Furthermore, the study's findings can be valuable to commercial policymakers and strategists when developing and implementing plans and policies to promote digital entrepreneurship, which has received little attention.

1.8 Study's Limits and Limitations

The study's limitation have been summarized as following:

1. **Humane Limits:** This study is limited to the owners, managers, employees in micro and small enterprises operating at King Hussein Business Park.
2. **Time Limits**: Our study has been conducted during 2023/2024 academic year.
3. **Place Limits**: The study has been conducted in micro and small enterprises operating at King Hussein Business Park in Amman.

1.9 Operational Definitions

1. **Digital Entrepreneurship:** is the dynamic process of conceiving, developing, and managing ventures that primarily operate in the digital domain. This entrepreneurial paradigm harnesses the transformative power of digital technologies, the internet, and online platforms to identify and exploit innovative business opportunities

2. **Digital Knowledge:** It is a set of knowledge, experiences, and abilities to use digital devices and technologies efficiently and usefully in the work environment.

3. **Digital Business Environment:** It is the workplace where employees rely on all the digital fi they need to successfully complete their work.

4. **Digital Finance:** It is the financial services provided by the enterprise owner to provide digital services in the enterprise.

5. **Digital Leadership:** It is the process of using technology, with the aim of creating new developments in the business model, customer experiences, and capabilities that support core operations.

6. **Digital Entrepreneurial Culture:** It is a process of social influence, through technology, to bring about a change in attitudes, feelings, thinking, behavior, and dealing with individuals, groups, or institutions to direct them towards achieving a specific goal.

7. **Competitive Advantage:** It is the ability acquired through resources to do business at a higher level than other companies in the same industry or market.

8. **Cost:** It is the price of what the enterprise or company bears in terms of materials, workers' wages, and other expenses in producing goods and services.

9. **Quality:** It is a set of characteristics and attributes that must be present in the product or service to enable the employee to perform his job to the fullest extent and satisfy the consumer.

10. **Flexibility:** It is the ability of an employee or organization to adapt to changing and new circumstances and challenges that they may face and that may affect the achievement of their goals or future plans.

CHAPTER TWO
Literature Review and Previous Studies

2.1 Introduction

Digital entrepreneurship involves creating innovative products and services that are accessible to diverse segments of society and selling them through various platforms by leveraging technological advancements (Jordan et al., 2014). The global prevalence of the internet, coupled with advancements in software, applications, social networks, and information technology, has given rise to this modern form of entrepreneurship (Kende, 2015).

The COVID-19 pandemic has significantly impacted Jordan's economy, particularly Micro, Small, and Medium-Sized Enterprises (MSMEs), resulting in challenges such as reduced sales, capital issues, and distribution obstacles (Al-Hyari, 2020). Many businesses, particularly those not adopting digital strategies, have faced closures as consumer preferences shifted towards online shopping (Singh & Thirumoorthi, 2019).

Digital entrepreneurship has become imperative for MSMEs, representing a transition from offline to online through social media and marketplaces (Nasution, 2022). This shift enables businesses to reach a wider customer base, capitalizing on a society where technology accelerates information transfer, and geographical distances are no longer barriers (Weeks & Lessing, 2001).

As a result of these advancements, digital entrepreneurship has emerged as a distinct category, characterized by conducting business on digital networks. This approach brings flexibility, speed, cost-effectiveness, and quality in responding to diverse demands and preferences (van Welsum, 2016). The convenience and cost advantages associated with digital entrepreneurship make it a highly sought-after category (Zakharkina, 2023).

In the face of uncertainties, microbusiness entrepreneurs can leverage digital strategies to develop competitive strategies, turning obstacles into opportunities and transforming challenges into lucrative investments (Gupta & Bose, 2022). This adaptability and resilience highlight the transformative power of digital entrepreneurship in navigating the evolving business landscape.

The research places a crucial emphasis on understanding and harnessing competitive advantages through digital strategies. Recognizing the pivotal role of digital entrepreneurship in bolstering the country's economic resilience, the study seeks to contribute to fill in the existing literature.

2.2 Digital Entrepreneurship Definition

Digital entrepreneurship has been defined as the process of transforming traditional business into a form commensurate with current digital business developments in a way that contributes to enhancing business flexibility by establishing new projects and developing existing projects using the latest new pioneering digital technologies (Nangara,2021).

It’s not always easy to tell who is a digital entrepreneur and who is not. The digitalization of the economy may alter the fundamental definition of entrepreneurship. Sussan and Acs (2017) wonder, What about Uber drivers renters? Do they consider themselves to be digital entrepreneurs?

In some ways, one might argue that entrepreneurship today is digital or data-driven that incorporates computing and a computer in some way. (Varian, 2010) stated that, "sometimes the computer takes the form of a smart cash register, sometimes it’s part of a sophisticated point of sale system, and sometimes it’s a web site." As a result, all entrepreneurial transactions in the economy are now monitored and preserved digitally - as digital artifacts - and traded on digital artifact exchanges.

The best way to understand what digital entrepreneurship is and who is the digital entrepreneur, is to begin with one of the most frequently acknowledged definitions of entrepreneurship, (Shane & Venkataraman, 2012) they characterized the discipline as the study of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited (Shane & Venkataraman 2000).

To adhere to this concept, digital entrepreneurship should first comprise opportunity identification and exploitation within the digital economy. Then, digital entrepreneurship has been defined as the pursuit of opportunities based on the use of digital media and other information and communication technologies (Davidson & Vaast, 2010).

According to Von Briel et al. (2018), one clear implication of Shane and Ventakaram's (2000) framework is that the opportunity should influence the venture creation process. In other words, digital entrepreneurship differs from traditional entrepreneurship in the digital aspect which influences the entrepreneurial process.

The concept of a digital artifact is crucial in understanding how an opportunity in the digital economy effects the entrepreneurial process. Von Briel et al. (2018) has defined digital artifacts as man-made purposeful objects embodied in information and communication technology components of software and hardware. Digital artifacts can be recombined, edited, and distributed, leading to new venture ideas, price changes, and changes in the nature of competition and strategy, all of which contribute to what has been described as the increasingly malleable, extendable, and modifiable characteristics of entrepreneurial processes (Recker & Von Briel,2019). Because digital artifacts can be recombined, the possibilities for new artifact creation are endless. A digital entrepreneur, for example, can provide a new set of services and /or goods by

recombining existing digital artifacts, such as application programming interfaces (APIs), in a novel way or introducing it in a new context.

Entrepreneurship entails the discovery or development of unique and useful ideas through focused time and effort (Landström, 2005). It entails taking social risks and reaching goals such as financial gain and personal fulfillment (Certo & Miller, 2008). With the increased acceptance of the Internet and its integration into all parts of people's life, a new category of entrepreneurship has emerged known as digital entrepreneurship (Shen et al., 2018). This type of entrepreneurship blends classic business concepts with cutting-edge technology, resulting in creative initiatives that use digital tools to improve and expedite business processes (Zhao, 2016). Experts define it as the development of new projects that use digital technologies to improve processes (Chirumalla, 2021)

According to (Cavallo et al., 2019), digital entrepreneurs are people who seek possibilities to produce and trade in digital artifacts on digital artifact stores or platforms and /or develop these digital artifact stores or platforms. The construction and commercialization of new digital infrastructure, such as platforms, or the production of value within existing digital platforms are thus the most common forms of digital Entrepreneurship (Sussan & Acs., 2017).

2.2.1 Digital Entrepreneurship Advantages

A digital entrepreneur has been defined as someone who builds a long-term business on the Internet and enjoys many benefits, the most prominent of which is the ability to conduct business from anywhere in the world as long as he has an Internet connection (Zaheer et al., 2019).

It should also be an ambitious goal in terms of electronic entrepreneurial work, as well as a vision supported by many specific ideas that are unique and new in the market,

as well as a clear comprehensive vision of how to achieve this goal even if the details are not completed, so that it is flexible, scalable, and a strategy to turn his dream into reality (Javed et al., 2020) . and implement it with perseverance, drive, and initiative to ensure the success of his idea, as well as take measured risks and techniques in terms of market entry or creation, as well as how to meet the needs of customers, leveraging digital information technology to achieve these aims.

One significant advantage of being an entrepreneur is having control over when and where you work, as well as how you grow your firm. Some of the primary benefits of digital entrepreneurship include:

1. Scalability

As a digital entrepreneur, the product or service should often target a niche market. it can scale the business to a larger audience once it achieved a particular degree of success (Zhang et al., 2015).

While it may need to hire additional employees and expand production, a digital shop is usually less expensive and easier to set up than a physical store (De et al., 2019). Owners of e-commerce businesses can identify and hire people outside of their local market, and expansion may require little or no new premises (Nakavachara & Sathirathai, 2021). It is also usually easier to downsize a digital firm if you wish to devote more time to other pursuits.

2. Easy access to consumers

A physical firm is limited to a specific geographic area, whereas an online business with a well-defined digital marketing strategy can reach potential clients all over the country and even the world. Businesses may meet clients where they are by utilizing social media accounts and other digital technologies (Camilleri & Isaias, 2021).

3. Flexibility

The flexibility to choose the schedule is a significant advantage of running an online business. Entrepreneurs can work when they want and still have time to take care of family members, vacation, and strike a work-life balance (Coetzee, 2019). They can also work from anywhere as long as they have access to internet.

4. Potential for part-time work

Digital entrepreneurship made it easier to start apart-time business, because it allowed entrepreneurs to work at any time (van Welsum, 2016). It's a good alternative for those who are not ready to leave their jobs.

5. Low costs

Starting an online business is typically less expensive. While an internet business may require a workplace and software subscriptions, a physical store requires a storefront as well as furniture, shelves, merchandise, and personnel to operate (Ozer, 2005). Online enterprises, on the other hand, can make cost-cutting changes as needed. They may contemplate drop shipping, selling dead goods at a discount to save money on storage, and just paying employees for income-producing activities such as product assembly (Siddiqui & Basha, 2013).

6. Potential for growth

The growth was accelerated with COVID19 pandemic. Customers migrated from browsing in storefronts to purchasing online, increasing ecommerce sales to 43% in 2020, While internet orders have decreased in the first quarter of 2023, the sector remains resilient (Dos Santos et al., 2022). One out of five retail sales will be done online by 2024.

2.2.2 Digital Entrepreneurship Importance

Entrepreneurship has a huge impact on the local community's economic growth and living standards. Entrepreneurs empower their communities, counties, and the national

economy as a whole by doing their best for their enterprises. Entrepreneurs, as opposed to the job seekers, create jobs by employing locals and thereby increasing their spending power. The rise of their businesses leads to an increase in the local community's level of living. Entrepreneurs utilize local resources and other enterprises as part of their supply chain, shifting cash and investments to local communities. Increased entrepreneurial activity in less developed areas leads to infrastructure improvements such as roads, improved water and electricity supplies, and other facilities that would not otherwise be available.

Kneevi and Duspara (2016) emphasized on the importance of implementing strategies that lead to long-term competitive advantage and development based on new technologies, knowledge, and investments, as well as providing small entrepreneurs with legal and administrative assistance in developing their ideas. SMEs that use advanced digital technology more effectively can enhance both growth and employment. Digital Entrepreneurship, according to Van welsum (2016), may lead to equal opportunities in some sectors, creating employment opportunities from remote areas, at different hours, from home, and so on. It can play a significant role in fostering gender equality and social and economic inclusion, stimulating local development, and contributing long-term development, particularly when new technologies are integrated with open and public data. New technological trends, such as mobile and social solutions, cloud computing, data analytics, manufacturing digitization, including digital technologies for industrial product design, prototyping, and testing, as well as collaborative technologies, offer a new range of opportunities for business services in the knowledge economy.

Digital firms differ from traditional enterprises because they rely on various business models and completely utilize digital technology to pursue their products and services, as well as marketing and distribution activities . Digitization and advancements

in information and communication technology are changing the corporate environment, modifying company processes, and offering chances for new forms of entrepreneurial activity (Ngoasong, 2015). It's easy to become a digital entrepreneur compared to starting a new venture in the non-digital arena. For example, the time necessary to develop a website that offers pre-existing products is rather short (Hull et al., 2007). Because it's so simple, many entries exhibit appallingly low quality and poor customer service, making it difficult for quality digital entrepreneurs to succeed (Firdous & Farooqi, 2019). Entrepreneurs must grasp the advantages and disadvantages of digital entrepreneurship, as well as how they differ from those connected with traditional entrepreneurship.

The use of digital technologies provides tremendous growth opportunities but require entrepreneurs to fully unlock their economic potential as the basis of new businesses or an enabler of the transformation of already established firms (van Welsum, 2016, p. 7). Many local digital entrepreneurs can swiftly expand across borders. The ability to recognize new technology-enabled business possibilities is critical for successful digital entrepreneurship.

To encourage digital entrepreneurship, economic experts created a digital entrepreneurship policy framework that is divided into five pillars that describe fundamental aspects of digital entrepreneurship. The pillars are as following:

- Digital knowledge base and ICT market.
- Digital business environment.
- Access to finance.
- Digital skills and e-leadership.
- Entrepreneurial culture.

Digital entrepreneurship has emerged as a significant change agent in modern business environments, altering traditional frameworks and fostering creative solutions (Shen, 2018). This review digs into the forms of digital entrepreneurship within the field of business management, investigating their impact on gaining a competitive advantage. Understanding these entrepreneurial tactics is critical for firms wanting to prosper in the face of the continuing digital transformation (Chotipurk et al., 2023).

2.3 Data-Driven Entrepreneurship

Businesses are increasingly using data analytics to inform strategic decision-making in the context of Data-Driven Entrepreneurship (Turi & Li, 2022). Gathering, analyzing, and strategically utilizing data to uncover patterns, streamline processes, and personalize consumer experiences is part of this entrepreneurial strategy (Piccoli, 2008). Organizations who excel at data management and use not only get a competitive advantage, but also gain important insights that drive innovation and operational efficiency (Bansal & Kumar, 2020)

2.4 Platform-Based Entrepreneurship

Digital platforms have become vital for entrepreneurial operations in the domain of Platform-Based Entrepreneurship, working as mediators connecting buyers and sellers, service providers, and consumers (Park et al., 2021). Entrepreneurs are in charge of building and administering platforms that facilitate transactions, as well as nurturing network effects and developing ecosystems to boost competitiveness (Jordan et al., 2014). The sustained competitive advantage of these projects is dependent on the platforms' efficient governance and scalability (Marheine, 2020).

2.5 Innovation Ecosystems and Collaborative Entrepreneurship

Collaborative entrepreneurship in the context of Innovation Ecosystems and Collaborative Entrepreneurship entails developing collaborations and alliances within

innovation ecosystems (Seo, 2020). To stimulate innovation, digital entrepreneurs work with startups, industrial partners, and study institutions (Zahoor et al., 2016). Efficiently managing these collaborative networks becomes critical in gaining a competitive advantage by gaining access to diverse resources and accelerating the pace of innovation cycles (Eschenbaecher & Graser, 2011).

2.6 Competitive Advantage

The ability, technology, or distinguished resource enables the firm to provide customers with better values and benefits than competitors. Al-Qurna, (2014) has summarized the competitive advantage variables as following;

1. **Cost:** It's the management of operations in order to minimize production costs in comparison to competitors and to achieve competitive pricing that enhance the competitive advantage of products in the market and that lowering product prices leads to boosting demand for them.
2. **Quality:** The ability to produce products/services that suit customers' requirements and aspirations, as the product's qualities will meet customer satisfaction.
3. **Flexibility:** It refers to one's ability and rapidity in responding to changes. The best institution is one that adapts to change and so increases its competitiveness.

2.6.1 Competitive Advantage Definitions

Competitive advantage, a crucial concept in strategic management, is defined as the distinctive qualities, capabilities, or resources that empower a company to surpass its competitors and attain superior performance in the market (Gareche et al., 2019). Several definitions exist to encapsulate this crucial notion. Michael Porter, a prominent strategist, characterizes competitive advantage as a firm's capacity to deliver products or services

more efficiently or uniquely than its rivals, thereby generating value for customers and establishing a lasting edge in the marketplace (Porter, 1985). This underscores the significance of both cost leadership and product differentiation in achieving a competitive edge. Another perspective, presented by Jay Barney through the Resource-Based View (RBV), asserts that sustained competitive advantage stems from possessing resources that are valuable, rare, and challenging to replicate (Barney, 1991). This definition underscores the internal capabilities and assets that organizations can exploit to maintain a competitive edge. In addition to these perspectives, there are dynamic views of competitive advantage, recognizing the evolving nature of markets and the imperative of adaptability (Zaridis, 2009). In sum, the diverse range of definitions reflects the multifaceted nature of competitive advantage, encompassing strategic positioning, resource management, and adaptability to offer a comprehensive comprehension of what propels a company to excel in the competitive business landscape. Ultimately, competitive advantage serves as the linchpin of strategic thinking, guiding businesses in their pursuit of enduring success and resilience amidst a constantly changing world.

2.6.2 Competitive Advantages of Small and Medium-Sized Enterprises

According to (Filipova, 2004) adaptability is an indication of an enterprise's competitiveness, showing the adequacy of its responses to environmental relationship and compliance with environmental dynamics. According to Dimitrova, competitive advantages are critical to the process of shaping and developing an enterprise's competitiveness. (Dimitrova, 2014), the current idea of competitive advantages emerged as a result of scientific and technological advancement, globalization, and the internationalization of competitive interactions. Competitive advantages demonstrate competitiveness. This relationship between these categories is thought to be causative, competitiveness is represented in the manifestation of competitive advantage. (Azoev,

2000) defined competitiveness as the existence of competitive advantages, without which it's impossible to succeed. It's vital to investigate the substance of competitive advantages in order to gain a comprehensive understanding of the process for generating competitiveness, disclosure of its content, and internal linkages. The scientific literature contains a number of definitions of the nature of competitive advantage, while Markova said, competitive advantage is the characteristics of the company and its products add value to customers (Novita & Husna, 2020).

(Skačkauskienė et al., 2023)claimed that their evaluation served as a foundation for the development of marketing strategies. (Christensen, 2010) stated that competitive advantage can be described as a product-owned specific quality that adds value to consumers and is more beneficial than competitors' products.

Competitive advantages are extremely time-consuming aspects of the firm or external environment variables that give the enterprise with a competitive advantage in the particular market over the time period covered. The competitive advantage refers to the features or properties that a product or brand possesses that provide it an advantage over its immediate competitors. Kotler mentioned that a competitive advantage is an edge over competitors gained by providing greater value or cheaper pricing, or by providing more benefits justifying higher costs (Kotler 1996) Based on what has been said thus far, the researcher may conclude that a competitive advantage is a distinguishing positive quality of the entity or entities in which it excels and differentiates itself from its competitors. Dimitrova observed that competitive advantages might be both actual and hypothetical in the context of time (Dimitrova, 2014).

It's vital to note that acquiring and developing competitive advantages is defined as the most difficult task encountered by small and medium-sized firms (SME's) in today's super-competitive and constantly changing Business environment. At the same

time, strategic management achievements, such as theory and practice, are inspired by and largely geared for the demands of large businesses. As a result, they are not directly applicable in smaller businesses and do not entirely match to their special demands and characteristics.

Whereas Schiffer & Weder stated that, in the context of large enterprises, small and medium-sized enterprises typically do not have the opportunity to develop advantages based on economies of scale and scope, easy access to finance, carrying out costly study and development (Schiffer & Weder, 2001).

Kuyrova, mentioned that a winning strategy for small enterprises considered as the development and introduction of new products to the market or improvements to the existing ones, as the realization of the products that linked on the one hand with consumer needs and satisfaction, on the other hand, achieving a competitive advantage (Kyurova, 2014). A company has a competitive edge if it gives clients something unique in comparison to other competitors' services, and this uniqueness benefits customers. Examples of having a competitive advantage include situations in which the company can do something that competitors cannot or owns something that competitors do not have but want. From a theoretical standpoint, the corporation has a competitive advantage when it can generate more economic value than its competitors. Economic value is the difference between the customer's subjective estimate of the benefits derived from using the company's product or service and the entire cost, which includes all of the company's costs for the creation and realization of the product or service. As a result, the extent of a company's competitive advantage can be defined as the difference between the economic value created by the company and the economic value created by its competitors. Barney explains the competitive advantages of being temporary or long-term (Barney, 2006).

2.6.3 Competitive Strategies of Small and Medium-Sized Enterprises

Competitive advantages and competitive strategies are inextricably linked and dependent. In order to operate and develop successfully in competitive markets, the firm must have a competitive advantage over its competitors. According to Dimitrova, competitive advantages are the foundation for developing and implementing an enterprise's competitive strategy (Dimitrova, 2014).

Filipova said, in order to be competitive, enterprises must construct their strategies on a completely new foundation, based on new technologies, uniqueness of processes and products, satisfaction of all user criteria, and high quality of the given items (Filipova, 2005) The ultimate purpose of the strategic management process is to guide the organization in selecting and implementing a strategy that will create a competitive advantage. This is equally true for small and medium-sized businesses, which require a strategy to establish a competitive advantage and produce excellent financial and economic results. A number of studies, as reported in Miller's work, reveal that organizations with well-developed strategies outperform their competitors.

Pelham stated that small enterprises will be more successful when they implement a differentiation strategy and strive to gain competitive advantages through difference. (Van Gils, 2005). However, it’s frequently observed that strategic governance is vital for large firms, whereas entrepreneurs and managers in small and medium-sized enterprises do not pay adequate attention to strategic management prospects. One explanation for this is that small and medium-sized businesses are too preoccupied with carrying out their daily activities and handling operational challenges, leaving little time and opportunity for strategic analysis and solutions.

According to various experts, small and medium-sized organizations in their early

stages of development are more effective than larger and established companies in recognizing business possibilities. (Ireland, pp. 963-989) Simultaneously, SMEs are less effective in generating competitive advantages in the process of capitalizing on these possibilities. This is especially common in companies that exhibit a lack of strategic behavior. As a result, they face difficulty in establishing and sustaining competitive advantages.

Gaining a competitive advantage is not enough; the key to success is acquiring a sustained competitive advantage. Companies gain long-term competitive advantages by developing and expanding a set of key competences that allow them to serve certain market segments better than competitors. Key competences are distinct characteristics that businesses build in critical areas such as consumer service, delivering high quality and reliability, innovation, teamwork, flexibility, sensitivity and adaptability to changes in the environment, and others that allow them to outperform competitors. Companies may only gain long-term benefits if they have valuable resources that are scarce, difficult to copy, and interchangeable. Resources must be valuable, which is related to their ability to create value. They should be scarce, implying scarcity and, as a result, inaccessibility to all companies seeking to acquire them. Furthermore, they must be difficult to mimic and have a high degree which is related with giving the organization with a long-term competitive edge.

The following are some of the most regularly employed tactics for gaining a competitive advantage:

- Preserving entrepreneurial behavior and willingness to risk taking.
- Relations with the owners and managers of SME’s.

- Continuous search for new opportunities and niche markets.
- Creation of new partnerships.
- High motivation and morale of the staff as a result of togetherness and close.

The concept of strategic entrepreneurship should be discussed in relation to the implementation of these initiatives. It's a very small study area, and as a result of its early development, there are different viewpoints on its significance and description. The combination of the principles of entrepreneurship and strategic management is key to its essence. According to Kuratko, strategic entrepreneurship is a blend of opportunistic entrepreneurship and strategic advantage-seeking activity (Klein et al., 2012)

As a result, strategic entrepreneurship is related to the identification and utilization of business opportunities, as well as the acquisition and maintenance of competitive advantages. Competition is the foundation of a market economy, providing a powerful incentive for economic growth, improved production quality, faster scientific and technological progress, and reduced production support. State intervention in the economy's market sector is becoming increasingly necessary. The activity of providing conditions for establishing, developing, and maintaining fair competition, as well as by crossing long-term monopolistic and antitrust agreements, is a mandatory function of the state. Competitiveness techniques are used to generate and sustain competitive advantage. Developing a competitive strategy requires the company to discover a means to successfully and long-term position itself in its industry, taking into account both the specific branch conditions, the size of its capital, and the accumulated knowledge and expertise. It's vital to create conditions in which the new entrepreneur will have access to the knowledge needed to properly reconcile his judgments with those of other market

participants. The primary goal of doing information analysis operations is to provide the organization with technological benefits.

2.6.4 Competitive Advantage Benefits

In the ever-evolving business environment, fostering a competitive advantage transcends mere preference; it evolves into a strategic necessity. This array of benefits, spanning alignment with customer aspirations to harnessing internal capabilities, serves as the cornerstone for achieving corporate success (Timoshenko & Hauser, 2019). Grasping the ways in which these advantages elevate customer relationships, strategic positioning, and continuous adaptability is pivotal for companies aspiring not only to succeed but to establish lasting dominance in the market (Noreen, 2015).

- **Aligned with customer aspirations and demands**: A competitive edge is most potent when it corresponds closely with the desires and requirements of the customer base. Crafting products or services that not only meet but exceed customer expectations fosters loyalty and establishes the company as a preferred choice, setting it apart from competitors who may struggle to connect as deeply with their audience (Danibrata, 2019).
- **Essential for corporate triumph**: A competitive advantage isn't just a desirable trait; it's often a critical factor determining the overall success of a corporation. Companies that can identify and leverage unique strengths, whether through technological innovation, operational efficiency, or distinctive market positioning, are better positioned for sustained success in the fiercely competitive business environment (Lumumba, 2021).
- **Enhances alignment between internal resources and external opportunities**: A competitive advantage improves the strategic fit between an organization's internal capabilities and the external opportunities present in the market. It ensures that a company is well-prepared to capitalize on favorable conditions, whether through

streamlined production processes, advanced technology, or a robust distribution network (Barton & Thomas, 2009).

- **Facilitates ongoing improvements**: A sustainable competitive advantage acts as a platform for continuous enhancements and innovations. It provides a foundation for the organization to build upon, enabling it to adapt to evolving market conditions and stay ahead of emerging trends (Day & Schoemaker, 2016). This proactive approach allows the company to consistently refine its products, services, and processes for long-term relevance and competitiveness.
- **Enduring and challenging for competitors to replicate**: A truly effective competitive advantage is characterized by its longevity and resistance to imitation. Whether grounded in proprietary technology, strong brand equity, or unique expertise, a competitive advantage that is challenging for competitors to duplicate offers a more lasting source of differentiation (Harrigan & DiGuardo, 2015). This resilience establishes a barrier to entry, fortifying the company's market position over the long haul.

2.7 Previous Studies

This section displays the most notable studies on the subject as well as study variables. In addition, the following is a summary of those studies in chronological order

The study of (Prabowo et al., 2021), entitled "The Influence of Dynamic Capability on Sustainable Competitive Advantage: An Empirical Study of Small Businesses in Indonesia"

This research investigates the role of dynamic capability in determining the sustainable competitive advantage of small businesses in Palembang, Indonesia, particularly during the Covid-19 pandemic. Conducted quantitatively, the study collected primary data through questionnaires distributed to 50 Small and Medium Enterprises (SMEs) in the food and beverage (F&B) and clothing industry. Employing Path Analysis with Smart PLS software, the research analyzes the relationships between dynamic capability as the independent variable, entrepreneurial marketing as the mediator, and sustainable competitive advantage as the dependent variable. The findings reveal a positive and significant impact of dynamic capabilities on sustainable competitive advantage through entrepreneurial marketing for small businesses in Palembang. The study highlights the economic challenges faced by MSMEs during the pandemic, emphasizing the need for dynamic capabilities and entrepreneurial marketing to enhance sustainability and competitiveness. Recommendations include improving indicators related to resource allocation, customer value creation, and overall business performance to achieve sustainable competitive advantage in the challenging business environment shaped by the pandemic.

The study of (Ali & Anwar, 2021), entitled "Business strategy: The influence of Strategic Competitiveness on competitive advantage"

The research explored the elements that shape strategic competitiveness and its influence on competitive advantage in the private sector of Iraq's Kurdistan region. The

study delved into four key areas: competitive tactics, the culture of innovation, ethical leadership, and fresh ideas. Through a quantitative approach, a sample was taken from several banks using random selection, yielding 112 responses from 125 surveys distributed. The outcomes highlighted that competitive tactics, expertise & skills, entrepreneurial mindset, and novel concepts positively affect competitive advantage, with all findings being statistically significant at a 5% level. Key statistical measures, including beta values, adjusted R2, and F-values, confirmed the reliability of the employed models. Based on these insights, the researchers suggested that organizations emphasizing innovation should steer clear of strict regulations and administrative systems. Instead, they should embrace strategies that empower their workforce, encourage decentralized decision-making, offer educational resources, and strike a balance between organizational rewards and individual contributions.

The study of (Karimi & Walter, 2021), entitled "The Role of Entrepreneurial Agility in Digital Entrepreneurship and Creating Value in Response to Digital Disruption in the Newspaper Industry"

The study investigates the role of entrepreneurial agility (ENTAG) in responding to digital disruption within the newspaper industry. Using a cross-sectional survey of 136 newspaper companies, the research employs self-reported measures to assess the relationships between ENTAG, digital platform capabilities, business model innovation adoption, and creating value in the context of digital entrepreneurship. The results highlight the direct impact of ENTAG on building digital platform capabilities and the indirect influence on creating value through business model innovation adoption. The study underscores the significance of managerial cognitive abilities, such as opportunity foresight, in navigating digital disruption and recommends prioritizing the development of digital platform capabilities and the adoption of new business models for successful digital entrepreneurship.

The study of (Patrisia et al., 2022), entitled "Creation of Competitive Advantage in Improving the Business Performance of Banking Company"

The study investigates the impact of innovation, intellectual capital, and knowledge management on competitive advantage and, subsequently, business performance in the context of Padang City, West Sumatra, Indonesia. The respondents are bank employees with over five years of experience and structural positions within the companies. The research collected data through a survey using questionnaires, obtaining a response rate of 80.7%. The Structural Equation Modeling (SEM) approach with Smart-PLS as the analysis software. The findings indicate that innovation has a positive and significant effect on competitive advantage, while knowledge management has a negative but insignificant impact. Intellectual capital positively influences competitive advantage, and competitive advantage, in turn, positively affects business performance. The study reveals that innovation and intellectual capital significantly impact business performance indirectly through competitive advantage as a mediating variable. The research suggests practical implications for decision-makers, emphasizing the need for companies to develop intellectual capital, manage knowledge effectively, and foster innovation to maintain a competitive advantage and enhance business performance. The limitations include the cross-sectional nature of the study and its focus on one country, suggesting potential extensions to longitudinal studies and broader geographical scopes in future research. Overall, the study contributes empirical evidence for banking companies, highlighting the importance of innovation, intellectual capital, and knowledge management in enhancing competitive advantage and business performance.

The study of (Nafis et al., 2022), entitled "The Impact of Organizational Entrepreneurship on Improving Competitive Advantage with Mediating Role of Innovation in Start-up Digital Industries"

The research examined how organizational entrepreneurship boosts competitive advantage in emerging digital sectors, focusing on innovation as a crucial intermediary.

Using a quantitative descriptive survey method, data were collected from 63 top executives of digital start-ups. Data analysis was performed using the Smart PLS software. The main results indicated that organizational entrepreneurship has a positive influence on both innovation and gaining a competitive edge. Additionally, innovation acts as a bridge between organizational entrepreneurship and competitive advantage. The study underscores the importance of cultivating an innovative culture within firms, encouraging active involvement of staff in brainstorming and decision-making. The suggestions include establishing an environment conducive to creative thinking, fostering teamwork in collaborative settings, and pioneering innovative distribution strategies to differentiate digital start-ups from their rivals.

The study of (Setyaningrum et al., 2023), entitled "Sustainable SMEs Performance and Green Competitive Advantage: The Role of Green Creativity, Business Independence and Green IT Empowerment"

This study investigates the influence of green creativity and business independence on competitive advantage, with a focus on the moderation effect of green IT empowerment, in the context of sustainable Small and Medium Enterprises (SMEs) in the Tangerang, Yogyakarta, and West Java regions. The sample comprises 272 SMEs selected through purposive sampling. The findings reveal that green creativity has a significant negative impact on the performance of sustainable SMEs but a positive impact on green competitive advantage. Business independence positively influences both sustainable SME performance and green competitive advantage. However, green IT empowerment does not moderate the relationship between green creativity and sustainable SME performance, weakening the link between green creativity and green competitive advantage. Similarly, green IT empowerment does not moderate the relationship between business independence and sustainable performance but moderates

the positive association between independence and green competitive advantage. The study emphasizes the importance of considering green IT empowerment in fostering green creativity and independence for SMEs to enhance their sustainable performance and competitive advantage.

The study of (Masyhuri, 2023), entitled "Competitive Priorities as Operations Management Strategy Enablers"

The discussed study explores the significance of competitive priorities, namely cost, quality, time, and flexibility, as foundational elements for a company's operating strategy. The paper emphasizes that there is no one-size-fits-all approach for selecting competitive priorities, as each company's competitive strategy and resource approach vary. Successful companies like Wal-Mart, Toyota, Southwest Airlines, and those utilizing 3D printing technology are cited as examples, each excelling in a specific competitive priority. The study contends that strategic flexibility and innovation capabilities are crucial in a dynamic business environment, serving as additional tools alongside traditional competitive priorities. The role of executive management is underscored in defining competitive objectives and enhancing innovation strategies. The methodology employed in the study is not explicitly outlined, and the specific research tools utilized for data collection are not mentioned. The authors recommend that companies should focus on strategic flexibility and innovation capabilities, emphasizing the pivotal role of management in setting competitive objectives and refining innovation strategies.

The study (Shehadeh et al., 2023), entitled "Digital Transformation and Competitive Advantage in the Service Sector: A Moderated-Mediation Model"

The study explores the impact of digital transformation on competitive advantage in Jordan's service sector, considering the mediating role of entrepreneurial orientation and the moderating effect of innovation capabilities. Using data from Jordanian service

companies, the analysis employed AMOS. Results indicate that digital transformation directly influences competitive advantage and entrepreneurial orientation, with the latter mediating the former. Innovation capabilities also moderate the relationships between digital transformation, competitive advantage, and entrepreneurial orientation. The study underscores the significance of digital transformation and entrepreneurial orientation for service companies to gain a competitive advantage. The methodology involved quantitative analysis using AMOS and a structured questionnaire. Recommendations include developing robust digital transformation strategies, balancing innovation capabilities, and fostering a customer-centric and innovative organizational culture. The research contributes valuable insights for service company managers, emphasizing the need for a strategic approach to digital transformation.

A study (Almrshed et al., 2023), entitled "The Effect of Innovation Management on Sustainable Competitive Advantage in Contemporary Organizations"

The research aimed to analyze the significance of dynamic capabilities, specifically creative competitive advantage, product excellence, and technology acceptability, for manufacturing SMEs in Nigeria. Grounded in the literature on the impact of creative competitive advantage on product quality, the study employed partial least squares structural equation modeling to analyze data from 245 Nigerian SMEs in the manufacturing sector. Findings revealed that technology adoption moderated the relationship between consumer preferences and product quality. A positive association was identified between the corporate business model and product excellence, indicating that technology integration played a crucial role. The research emphasized the importance of customer satisfaction achieved through innovative competitive approaches and technological progress for the sustainable growth of SMEs in the industrial sector. Recommendations included the adoption of innovative business models, strategies, and alliances to leverage competitive advantages and enhance long-term success.

A study of (Raut & Mitrović-Veljković, 2023) entitled "Information technologies as a tool for the development of Digital Entrepreneurship"

The study emphasized on the significance of digital platforms, information technologies, and innovative practices in shaping digital entrepreneurship digital entrepreneurship by using scientific methodologies to investigate the distinctions between traditional and digital entrepreneurship, with an emphasis on the relationship of information technologies. The findings demonstrated considerable differences between traditional and digital entrepreneurship, stressing the benefits of employing new information technology to boost competitiveness. The study investigated digital entrepreneurship as the digitization of established business models, the importance of digital entrepreneurship ecosystems, and the effect of large corporations such as Google, Facebook, Apple, and Microsoft. Recommendations emphasize the relevance of advanced technology in developing digital entrepreneurship, the necessity for a strategic global view, and compelling elements for collaboration in the digital entrepreneurship landscape.

A study of (Wibowo et al., 2023), entitled "How does Digital Entrepreneurship education promote entrepreneurial intention? The role of social media and entrepreneurial intuition"

The study focused on how digital platforms; information technologies, and innovative business practices shape digital entrepreneurship. The study's findings indicated significant differences between traditional and digital entrepreneurship, particularly in terms of products, marketing techniques, and work cultures. It also emphasized on the advantages of digital entrepreneurship, such as harnessing modern information technologies to improve micro-competitiveness and enable successful business operations. The researcher's recommendations emphasized on the importance of modern technology in advancing digital entrepreneurship, the need for a strategic

global vision, and the motives and objectives driving collaboration within the digital entrepreneurship arena.

A study of (Ilyas. et al., 2023), entitled "Digital entrepreneurial acceptance: an examination of technology acceptance model and do-it-yourself behavior"

The previous study investigated digital entrepreneurship in the context of small-medium enterprises (SMEs) in Pakistan, extending existing literature on digital entrepreneurship, do-it-yourself (DIY), and technology acceptance models. The study aimed to identify factors associated with e-entrepreneurial acceptance by integrating DIY and technology acceptance models. The methodology involved collecting data from 200 SMEs using digital platforms for business activities through questionnaires. Structural equation modeling was applied to test the association of the models. The study found that all variables of the technology acceptance model were significantly related to digital entrepreneurial acceptance. DIY factors, except perceived lack of product quality and availability, had a substantial influence. The research was limited to SMEs in Pakistan. The results suggested that firms comfortable with digital entrepreneurial platforms were more likely to embrace them, emphasizing economic benefits and enjoyment as motivators. The study recommended that policy makers use these findings to formulate strategies for promoting e-entrepreneurial and DIY activities in SMEs.

A study of (Kraus et al., 2023), entitled "Digital entrepreneurship: The role of entrepreneurial orientation and digitalization for disruptive innovation"

The investigation explored the correlation between entrepreneurial orientation (EO), digitalization strategy, and disruptive innovation in a sample of 242 firms spanning diverse industries, sizes, and geographical locations. Its objective was to fill knowledge gaps regarding how EO and digitalization strategy impact firms' capacity for disruptive innovation. The findings indicated a significant positive influence of EO on disruptive

innovation, indicating that firms prioritizing proactivity, risk-taking, and innovation are more likely to achieve groundbreaking results. Furthermore, the study uncovered that a digitalization strategy can act as a symbolic constraint for disruptive innovation in highly entrepreneurially oriented firms but can be supportive in less entrepreneurially oriented ones. The research employed quantitative survey data collection and utilized statistical analyses to test hypotheses. The study recommended that companies concentrate on fostering EO to encourage disruptive innovation and customize their digitalization strategy based on their EO level. Managers were cautioned to be mindful of the potential impediment of a rigid digitalization strategy on innovation and encouraged to explore more adaptable approaches.

The study of (Jin Kim et al., 2023), entitled "Digital Entrepreneurship and Business Innovation: A Simplified Model to Understand On-Demand Service Innovation"

The empirical study focuses on the impact of digital entrepreneurship on on-demand service innovation, exploring the factors contributing to business improvement amid accelerating digital technologies. The research is conducted in Padang City, West Sumatra, Indonesia, with bank employees as respondents. A survey with questionnaires is utilized, and the Structural Equation Modeling (SEM) approach, employing Smart-PLS as the analysis software, is used for data analysis. The study finds that digital entrepreneurship, characterized by entrepreneurial orientation and digital orientation, significantly influences on-demand service innovation. The presence of a person in charge of digital transformation is identified as a crucial factor affecting service innovation and firm performance. The study contributes to understanding how digitalization impacts on-demand service innovation within the entrepreneurial framework. The expanded concept of entrepreneurship, incorporating digital orientation, is proposed, emphasizing the transformative role of digital technology as a source of

competitive advantage and customer value creation. The research recommends further exploration of the interplay between digital entrepreneurship, on-demand service innovation, and firm performance, highlighting the need for organizations to invest in digital leadership and strategic direction for successful digital transformation.

2.8 What Differentiates the Current Study from Previous Studies

This study differs from previous studies in terms of its variables because it aimed to identify the impact of digital entrepreneurship with its variables (digital knowledge, digital business environment, digital Finance, digital leadership, digital entrepreneurial culture) on competitive advantage with its variables (cost, quality, and flexibility), which was not addressed in previous studies. In addition, the scarcity of research, especially in the Arabic language, in the areas of digital entrepreneurship and competitive advantage is notable. There is a limited focus on extremely small enterprises and small businesses, which are considered economic drivers contributing to the national GDP and providing employment opportunities.

CHAPTER THREE
Methodology (Methods and Procedures)

3.1 Introduction

This chapter describes the study technique used in this study as well as the demographic, sample, and instruments: It also describes the instruments validity and reliability. Finally, it details the data gathering processes as well as the study design and statistical analysis.

3.2 Methodology

This study aims to investigate the impact of digital entrepreneurship in achieving competitive advantage in micro and small enterprises operating at King Hussein Business Park. In order to fulfill the study's objectives and answer its questions, descriptive analytical technique was used to analyze the phenomenon under investigation and its components, as well as opinions expressed about it, processes involved, and outcomes created (Sekaran & Bougie, 2013).

3.3 Population and Sample of the Study

The study included 45 micro and small enterprises operating at King Husain Business Park. As the population was limited and accessible, a full survey was carried out, gathering data from all participants. In total, there were 51 individuals comprising owners, managers, and employees within these enterprises as a complete census. Consequently, 51 questionnaires were personally distributed to all respondents, and all received surveys were complete and suitable for statistical analysis.

3.4 Description of Study Sample Characteristics

This segment provides a concise overview and clarification of the demographic characteristics of the individuals involved in the study. It encompasses variables such as gender, age range, and length of professional experience, qualifications, and career stage. The study sample's demographic variables were analyzed, and the corresponding frequencies and percentages are presented in Table (3.1)

Table (3.1) Sample Population Distribution According to Study Variables

Variable	Category	Frequency	Percentage
Gender	Male	30	58.8%
	Female	21	41.2%
	Total	51	100%
Age	Less than 30 years	30	58.8%
	Less than 30-40 years	18	35.3%
	Less than 40-50 years	2	3.9%
	More than 50 years	1	2%
	Total	51	100%
Qualifications	Diploma	3	5.9%
	Bachelors' degree	35	68.6%
	Post graduate	13	25.5%
	Total	51	100%
Length of Professional Experience	Less than 5 years	18	35.3%
	From 5 - less than 10 years	21	41.2%
	From 10 – less than 15 years	9	17.6%
	15 years and over	3	5.9%
	Total	51	100%
Job Title	Owner	11	21.6%
	Manager	23	45.1%
	Employee	17	33.3%
	Total	51	100%

3.4.1 Instruments of the Study

To meet the study's goals and objectives, the researcher created a questionnaire to collect preliminary data.

3.4.2 Questionnaire

In light of the study questions, an instrument was developed to assess the attitudes of micro and small business owners, managers, and employs regarding digital entrepreneurship: The tool was developed based on a study of related studies on attitudes toward digital entrepreneurship. It included 40 elements (see Appendix 1 & 2).

3.5 The Validity of the Instruments

3.5.1 Digital Entrepreneurship Scale

The validity of the scale was verified as follows:

1. Validity

The digital Entrepreneurship scale was presented to a group of arbitrators to obtain their opinions and comments on the suitability of the scale's vocabulary, the clarity of the linguistic formulation of the phrases that make up the scale, the veracity of the items in measuring what they were designed to measure, the comprehensiveness of the items, and their suitability. With their remarks, which centered on changing the linguistic phrase of some paragraphs, 80% was approved as the percentage of agreement among the arbitrators to make the change. The jury members are listed in (Appendix 3).

2. Internal Consistency Validity

The internal consistency of the scale's statements refers to the amount to which all questionnaire items are consistent with the dimension to which they belong, implying that the statement measures what it was planned to measure and nothing else.

As a result, the 'Pearson' correlation coefficient was calculated between the score of each statement on the scale and the total score of the scale, as well as the 'Pearson' correlation coefficient between the dimensions and each other and the total score of the scale.

Table (3.2) Correlation Coefficients between the Dimensions and the Total Score of the Digital Entrepreneurship Scale

	Digital Knowledge	Digital Business Environment	Digital Finance	Digital leadership	Digital Entrepreneurial Culture
Digital Knowledge	.878**	.856**	.911**	.840**	.865**
Digital Business Environment	1	.809**	.750**	.611**	.680**
Digital Finance	.809**	1	.681**	.592**	.654**
Digital Leadership	.750**	.681**	1	.747**	.762**
Digital Entrepreneurial Culture	.611**	.592**	.747**	1	.679**

Table (3.2) shows that all correlation coefficients of the items with the dimension to which they belong and the total score of the scale are statistical significant at the level of (α=0.05), where the correlation coefficients of the dimensions with each other ranged between (0.592 and 0.809) and the correlation coefficients of the dimensions with the total score of the scale ranged between (0.840 and 0.911), and all of these values are statistical significant.

Table (3.3) Correlation coefficients of the items with the dimension they belong to and the total score of the digital entrepreneurship scale

Item	Correlation to Dimension	Correlation to Total Degree	Item	Correlation to Dimension	Correlation to Total Degree
1	.795**	.728**	14	.885**	.885**
2	.827**	.727**	15	.827**	.827**
3	.689**	.584**	16	.674**	.674**
4	.658**	.589**	17	.705**	.705**
5	.687**	.602**	18	.745**	.745**
6	.800**	.656**	19	.795**	.795**
7	.624**	.526**	20	.803**	.803**
8	.723**	.590**	21	.670**	.670**
9	.836**	.749**	22	.789**	.789**
10	.770**	.683**	23	.769**	.769**
11	.820**	.801**	24	.748**	.748**
12	.540**	.482**	25	.551**	.551**
13	.761**	.656**			

Table (3.3) clearly shows that all of the correlation coefficients of the items with the dimension to which they belong and the total score of the scale are statistical significant at the level (α=0.05), where the correlation coefficients of the items with the dimension to which they belong ranged between (0.540 and 0.885) and the correlation coefficients for the items with the total score of the scale ranged between (0.482 and 0.815), and all of these values are significant.

3.5.2 Competitive Advantage Scale

The validity of the scale was verified as following:

3. Face Validity

The digital entrepreneurship scale was presented to a group of arbitrators to obtain their opinions and comments on the appropriateness of the scale's vocabulary, the clarity of the linguistic formulation of the phrases that comprise it, the veracity of the items in measuring what they were designed to measure, the comprehensiveness of the items, and their suitability. With their remarks, which centered on changing the linguistic phrase of some paragraphs, 80% was approved as the percentage of agreement among the arbitrators to make the change. The jury members are listed in (Appendix 3).

4. Internal Consistency Validity

The internal consistency of the scale's statements refers to the amount to which all questionnaire items are consistent with the dimension to which they belong, implying that the statement measures what it was planned to measure and nothing else.

As a result, the 'Pearson' correlation coefficient was calculated between the score of each statement on the scale and the total score of the scale, as well as the 'Pearson' correlation coefficient between the dimensions and each other and the total score of the scale.

Table (3.4) Correlation coefficients between the dimensions and the total score of the Competitive Advantage scale

	Competitive Advantage	Cost	Quality	Flexibility
Cost	.893**	1	.799**	.762**
Quality	.959**	.799**	1	.803**
flexibility	.926**	.713**	.848**	.832**

Table (3.4) shows that all correlation coefficients of the items with the dimension to which they belong and with the total score of the scale are statistical significant at the level (α=0.05), where correlation coefficients of the dimensions with each other ranged between (0.713 and 0.848) and correlation coefficients of the dimensions with the total score of the scale ranged between (0.893 and 0.959), and all of these values are statistical significant.

Table (3.5) Correlation coefficients of the items with the dimension they belong to and the total score of the competitive advantage scale

Item	Correlation to Dimension	Correlation to Total Degree	Item	Correlation to Dimension	Correlation to Total Degree
1	.601**	.461**	9	.828**	.804**
2	.774**	.623**	10	.816**	.821**
3	.697**	.552**	11	.767**	.786**
4	.755**	.743**	12	.858**	.809**
5	.589**	.660**	13	.751**	.637**
6	.805**	.801**	14	.864**	.828**
7	.758**	.689**	15	.716**	.567**
8	.780**	.722**			

Table (3.5) shows that all of the correlation coefficients of the items with the dimension to which they belong and the total score of the scale are statistical significant at the level (α=0.05), where the correlation coefficients for the items with the dimension to which they belong ranged between (0.589 and 0.864) and the correlation coefficients for the items with the total score of the scale ranged between (0.482 and 0.815), and all of these values are statistical significant

3.6 Reliability of the Instrument

To ensure the reliability of the digital entrepreneurship scale, reliability was calculated using Cronbach's alpha, and Table (3.6) shows these results.

table (3.6) Reliability coefficient for the digital entrepreneurship scale using the "Cronbach's Alpha" method

Dimension	Items No.	Cronbach's Alpha Reliability
Digital Knowledge	5	0.79
Digital Business Environment	5	0.80
Digital Finance	5	0.82
Digital Leadership	5	0.79
Digital Entrepreneurial Culture	5	0.75
Digital Entrepreneurship	25	0.93

According to table (3.6), the reliability coefficient for the total score of the digital entrepreneurship scale using the Cronbach's alpha method was (0.93), the reliability coefficient for the digital knowledge dimension was (0.79), the reliability coefficient for the digital business environment dimension was (0.80), and the reliability coefficient for the digital business environment dimension was (0.80). The digital finance dimension's dependability was (0.82), the digital leadership dimension's reliability was (0.79), and the digital entrepreneurial culture dimension's reliability for small projects was (0.75). According to Nunnally's scale, which adopted (0.70) as the minimum, these results show that the digital entrepreneurship scale has a high degree of dependability and is appropriate for use with the general population.

To ensure the reliability of the competitive advantage scale, reliability was calculated using Cronbach's alpha, and Table (3.7) shows these results.

Table (3.7) Reliability coefficient for the competitive advantage scale using the "Cronbach's Alpha" method

Dimension	Items No.	Cronbach's Alpha Reliability
Cost	5	0.71
Quality	5	0.85
Flexibility	5	0.84
Competitive Advantage	15	0.92

According to table (3.7), the reliability coefficient for the total score of the competitive advantage scale was (0.92), the reliability coefficient for the cost dimension was (0.71), the reliability coefficient for the quality dimension was (0.85), and the reliability coefficient for the flexibility dimension was (0.84). According to Nunnally's scale, which accepted (0.70) as the minimal level of dependability, the competitive advantage measure has a reasonable degree of reliability and validity for application to the basic sample (Nunnally & Bernstein 1994 264-265).

3.7 Scale Correction Key

The five-point Lickert scale employed in the study was graded according to the rules and characteristics of the scales as follows:

Answers	Strongly agree	agree	Neutral	Disagree	Strongly disagree
Scores	**5**	**4**	**3**	**2**	**1**

Based on the above, the values of the obtained arithmetic averages were treated as follows, using the following equation:

The upper value - the lower value of the answer choices divided by the number of levels, i.e.

$\frac{5-1}{3} = \frac{4}{3} = 1.33$, this value equals the category length

Accordingly, the lower value 1.00-2.33

And the medium value 2.34-3.66

And the upper value 3.67-5.00

3.8 Model Suitability for Statistical Methods Used

Firstly: Normal Distribution Test

Variables	Statistical Evidence	kolmogorov smirnov z
Digital Knowledge	MODERATE	.200
Digital Business Environment	MODERATE	.085
Digital Finance	MODERATE	.200
Digital leadership	MODERATE	.095
Digital Entrepreneurial Culture	MODERATE	.200
Digital Entrepreneurship	MODERATE	.200
Competitive advantage	MODERATE	.200

The findings presented in table reveal that all significance values exceed the 0.05 threshold. The study results suggest that the questionnaire dimensions' data exhibit a moderate distribution, supporting the appropriateness of employing parametric methods for analysis.

Secondly: Multiple Linear Correlation Test

Variables	Tolerance	VIF	Durbin Watson
Digital Knowledge	.336	2.973	1.577
Digital Business Environment	.344	2.903	1.279
Digital Finance	.460	2.173	1.114
Digital leadership	.305	3.275	1.095
Digital Entrepreneurial Culture	.327	3.054	1.099
Digital Entrepreneurship	1.00	1.00	0.378

The table results indicate that both the variance inflation factors (VIF) and tolerance factors for all independent variables (VIF = 1/Tolerance) are within acceptable limits, with VIF values below 10. This implies the absence of multicollinearity issues among the variables. Additionally, the results demonstrate the absence of autocorrelation problems, with autocorrelation coefficients ranging between 0.378 and 1.577.

3.9 Study Design

Study variables has been divided as following:

First: Independent variable:

- Digital entrepreneurship has five dimensions, which are:
- Digital knowledge
- Digital business environment
- Digital leadership
- Digital entrepreneurial culture

Second: Dependent variable:

- Competitive Advantage has three dimensions, which are:
- Cost
- Quality
- Flexibility

3.10 Data Collection and Statistical Treatment

The researcher used the questionnaire to answer the study questions and test the related hypotheses. The attitudes scale was entered into SPSS (Statistical Package of Social Sciences) for analysis. The current study utilized a quantitative descriptive analytical design.

3.11 Procedures

- After choosing the topic of the study, the researcher reviewed various prior studies on the influence of digital entrepreneurship on competitive advantage in micro and small firms operating at King Hussein Business Park.
- The researcher identified the population and chose the samples for which the instruments were used.

- The researcher identified the questions based on the literature review, then the dimensions were established.
- Questionnaire was designed.
- Validity and reliability of the questionnaire were verified.
- A letter of permission was obtained from the Middle East University to facilitate the study and administer the questionnaire.
- Questionnaire was distributed and collected by the researcher in the first semester, during November and December 2023.
- The researcher has chosen owners, managers and employees in the study instruments in the first semester, November and December 2023.
- Data were analyzed and the study's questions were answered.
- The researcher presented recommendations and suggestions for future studies.
- List of references was written according to alphabetical order using the APA style .

CHAPTER FOUR

Findings of the Study

4.1 Study Findings

This chapter presents the findings with the goal of assessing the impact of digital entrepreneurship in achieving the competitive advantage of micro and small enterprises operating at King Hussein Business Park by addressing the following questions.

4.2 First's Question Findings

1. What is the level of application of digital entrepreneurship in micro and small enterprises operating at king Hussain Business Park?

To answer this question, the estimated averages and standard deviations of the sample's responses are based on the scale of digital entrepreneurship application, as indicated in the table below:

Table (4.1) Arithmetic means and standard deviations of the study sample's responses on the digital entrepreneurship application scale

Rank	Dimension	Mean	level
1	Digital knowledge	2.62	Medium
2	Digital entrepreneurial culture	2.56	Medium
3	Digital business environment	2.48	Medium
4	Digital leadership	2.44	Medium
5	Digital finance	2.34	Medium
	Digital entrepreneurship	2.49	Medium

According to Table (4.1), the overall average score for digital entrepreneurship got Medium degree with an arithmetical average of (2.49), digital knowledge got a medium degree with an arithmetical average of (2.62) and digital entrepreneurial culture for small projects was medium with an arithmetical average of (2.56), as for digital business environment which came after the digital entrepreneurial culture got a medium degree

with an arithmetical average of (2.48). Digital Leadership also got Medium degree with an arithmetical average of (2.44), as well as digital Finance got medium degree with an arithmetical average of (2.34).

1. First Dimension Digital Knowledge

Table (4.2) Arithmetic means and standard deviations of the study sample's responses to digital knowledge dimension, arranged in descending order based on Arithmetic means

Rank	Dimension	Mean	Std. Deviation	level
1	The enterprise uses computers suitable for the provided digital services	2.86	1.41	Medium
2	The enterprise has the necessary digital capabilities	2.78	1.43	Medium
3	The enterprise provides electronic training programs to its employees	2.63	1.46	Medium
4	The enterprise uses digital media to raise awareness about its services.	2.59	1.43	Medium
5	The enterprise communicates digitally with its people	2.25	1.29	Low
	Digital Knowledge	2.62		Medium

Table (4.2) shows that the general average for the digital knowledge dimension was Medium with a mean of (2.62), while the arithmetic averages for the items ranged between (2.25 and 2.86), where the paragraph that states the enterprise uses computers suitable for the provided digital services ranked first with an average Arithmetic of (2.86) got a medium degree, the paragraph that states, the enterprise has the necessary digital capabilities which came in the second rank with an arithmetic mean of (2.78) got a Medium degree, the paragraph which states ,the enterprise communicates digitally with its people which came in the fifth and final rank with an arithmetic mean of (2.25) got a low degree.

2. **Dimension of Digital Business Environment**

Table (4.3) Arithmetic means and standard deviations of the study sample's responses to digital business environment dimension, arranged in descending order based on Arithmetic means

Rank	Dimension	Mean	Std. Deviation	level
1	The enterprise offers the needed digital technology tools	2.63	1.28	Medium
2	The enterprise offers excellent internet connection	2.62	1.34	Medium
3	The enterprise provides all digital technology tools in work environment	2.55	1.21	Medium
4	The enterprise maintains the gadgets it uses on a regular basis.	2.55	1.32	Medium
5	The enterprise efficiently handles digital services.	2.08	1.43	Low
	Digital business environment	2.48		Medium

Table (4.3) shows that the general average of the digital business environment dimension was medium with an arithmetic average of (2.48), whereas the arithmetic averages for the items ranged between (2.08 and 2.63), the item that states the enterprise offers the needed digital technology tools first was ranked first with an arithmetic mean of (2.63) with a medium degree, while the paragraph that states, The enterprise offers excellent internet connection came in the second rank with an arithmetic mean of (2.62) with a medium degree, the last paragraph which states that, The enterprise efficiently handles digital services.. was ranked fifth, with an average mean of (2.08), with a Low degree.

3. **Dimension of Digital Finance**

Table (4.4) Arithmetic means and standard deviations of the study sample's responses to digital finance dimension, arranged in descending order based on Arithmetic means

Rank	Dimension	Mean	Std. Deviation	level
1	The enterprise manages digital emergency expenses in the case of a financial disruption	2.55	0.81	Medium
2	The enterprise updates the digital services budget	2.55	1.49	Medium
3	The enterprise provides a special committee to follow up the expenses of digital services	2.49	1.05	Medium
4	The enterprise allocates special expenses for digital services	2.18	0.86	Low
5	The enterprise provides an annual report that estimates the sustainability of the funding policy	1.94	1.35	Low
	Digital finance	2.34		Medium

Table (4.4) shows that the general average of the digital finance dimension was medium with an arithmetic average of (2.34), and the arithmetic averages for the paragraphs ranged between (1.94 and 2.55), whereas the paragraph that states the enterprise manages digital emergency expenses in the case of a financial disruption. Was ranked first with an arithmetic mean (2.55) with a medium degree, and the paragraph that states, the enterprise updates the digital services budget, ranked second with an arithmetic mean (2.55) with a medium degree, as for the last paragraph that states, the enterprise provides an annual report that estimates the sustainability of the funding policy. It was ranked fifth and, with an average mean of (1.94), with a Low degree.

4. **Dimension of Digital Leadership**

Table (4.5) Arithmetic means and standard deviations of the study sample's responses to digital leadership dimension, arranged in descending order based on Arithmetic means

Rank	Dimension	Mean	Std. Deviation	Level
1	The enterprise guides employees to optimize the use of digital technologies	2.63	1.41	Medium
2	The enterprise provides a special digital Card for each employee	2.59	1.47	Medium
3	The enterprise guides employees in the optimal use of digital technologies	2.56	1.47	Medium
4	The enterprise participates in the work of the digital driving Plan	2.29	1.15	Low
5	The enterprise hires experienced people to provide it with digital technologies	2.16	1.42	Low
	Digital Leadership	2.44		Medium

Table (4.5) shows that the overall average for the digital leadership dimension was medium with an arithmetical average of (2.44), while the arithmetical averages for the items ranged between (2.29 and 2.63), the paragraph that states the enterprise provides a special digital Card for each employee was ranked first with a arithmetical mean of (2.63) with a medium degree, whereas The paragraph that states, the enterprise provides a special digital Card for each employee. ranked second with a arithmetical mean of (2.59) with a medium degree. The last paragraph which states, the enterprise hires experienced people to provide it with digital technologies came in the fifth with an arithmetical mean of (2.16) with a Low degree.

5. Dimension of Digital Entrepreneurial Culture

Table (4.6) Arithmetic means and standard deviations of the study sample's responses to digital entrepreneurial culture dimension, arranged in descending order based on Arithmetic means

Rank	Dimension	Mean	Std. Deviation	level
1	The enterprise uses digital technologies to achieve goals	3.00	1.39	Medium
2	The enterprise relies on digital tools to carry out its administrative functions	2.68	1.46	Medium
3	The enterprise keeps pace with digital developments to enhance employees skills	2.47	1.22	Medium
4	The enterprise familiarizes employees with the digital tools available	2.43	1.45	Medium
5	The enterprise encourages communication with customers through digital technologies	2.25	1.47	Low
	Digital entrepreneurial culture	2.56		Medium

Table (4.6) shows that the general average of the digital entrepreneurial culture dimension for micro and small enterprises was high with an arithmetic average of (2.56), and the arithmetic averages for the items ranged between (2.25 and 3.00), where the item that states the enterprise uses digital entrepreneurial culture to achieve goals was ranked first with an arithmetic average of (3.00) with a medium degree, whereas the paragraph that states, the enterprise relies on digital tools to carry out its administrative functions ranked second with an arithmetic average of (2.68) with a medium degree. The last paragraph which states, the enterprise encourages communication with customers through digital technologies came in the fifth rank with an arithmetic average of (2.25) with a Low degree.

4.3 Second's Question Findings

What is the level of competitive advantage in micro and small enterprises?

To answer this question, the arithmetic means and standard deviations were calculated for the study sample's responses on the digital entrepreneurship application scale, as shown in Table (4.7)

Table (4.7) Arithmetic means and standard deviations of the study sample's responses to competitive advantage, arranged in descending order based on Arithmetic means

Rank	Dimension	Mean	level
1	Cost	2.71	Medium
2	Quality	2.66	Medium
3	Flexibility	2.59	Medium
	Competitive Advantage	2.65	Medium

Table (4.7) indicates that the overall average score for the competitive advantage scale was medium with a arithmetical average of (2.65), and came after cost with a arithmetical average of (2.71) with a medium degree, quality with a arithmetical average of (2.66) with a medium degree, and flexibility with an average Arithmetic (2.59) with a medium degree. Below is a breakdown of the averages of the scale items according to dimensions.

1. Cost Dimension

Table (4.8) Arithmetic means and standard deviations of the study sample's responses to cost dimension, arranged in descending order based on Arithmetic means

Rank	Dimension	Mean	Std. Deviation	level
1	The enterprise is responsible for cost planning	2.90	1.39	Medium
2	The enterprise monitors the expenditure of digital services	2.86	1.37	Medium
3	The entity determines the cost of training staff on digital services from the total costs	2.63	1.46	Medium
4	The enterprise determines the cost of training staff on digital services from the total costs	2.57	1.17	Medium
5	The enterprise is committed to the budget allocated to cover the cost of digital services	2.36	1.45	Medium
	Cost	2.66		Medium

Table (4.8) shows that the general average of the cost dimension was medium with an arithmetic average of (2.66), while the arithmetic averages for the paragraphs ranged between (2.36 and 2.90), the paragraph that states the enterprise is responsible for cost planning ranked first with an average Arithmetic of (2.90) with a medium degree, as well as the paragraph that states the enterprise monitors the expenditure of digital services came in second rank with an arithmetic mean of (2.86) with a medium degree, whereas the last paragraph that states the enterprise is committed to the budget allocated to cover the cost of digital services came in the fifth rank with an arithmetic average of (2.36) and a medium degree.

2. Quality Dimension

Table (4.9) Arithmetic means and standard deviations of the study sample's responses to Quality dimension, arranged in descending order based on Arithmetic means

Rank	Dimension	Mean	Std. Deviation	level
1	The enterprise promotes the culture of high-quality digital services that it provides.	2.86	1.39	Medium
2	The enterprise allocates material support to stimulate the highest quality standards	2.61	1.15	Medium
3	The enterprise monitors the application of quality standards through a special department for this purpose	2.61	1.44	Medium
4	The enterprise improves the quality of its services based on feedback	2.58	1.44	Medium
5	The enterprise allocates financial support to stimulate the highest quality standards	2.31	1.48	Low
	Quality	2.59		Medium

Table (4.9) shows that the general average of the quality dimension was medium, with a arithmetical average of (2.59), while the arithmetical averages for the items ranged between (2.31 and 2.86), whereas the paragraph that states the enterprise promotes the culture of high-quality digital services that it provides. Was ranked first with an arithmetical mean of (2.86) with a medium degree, as well as the paragraph that states the enterprise allocates material support to stimulate the highest quality standards, ranked second with an arithmetical mean of (2.61) with a medium degree, whereas the last paragraph that states the enterprise allocates financial support to stimulate the highest quality standards. Was ranked fifth, with an arithmetical mean of (2.31), with a Low degree.

3. Flexibility Dimension

Table (4.10) Arithmetic means and standard deviations of the study sample's responses to flexibility dimension, arranged in descending order based on Arithmetic means

Rank	Dimension	Mean	Std. Deviation	Level
1	The enterprise has the ability to use its resources in different areas	2.92	1.35	Medium
2	The enterprise has the ability to adapt and reallocate the use of its resources	2.90	1.39	Medium
3	The enterprise has the ability to exploit all opportunities in the market	2.73	1.43	Medium
4	The enterprise exploits a greater number of market opportunities compared to its competitors	2.61	1.25	Medium
5	The entity has the ability to adapt and reallocate the use of its resources	2.37	1.44	Medium
	Flexibility	2.71		Medium

Table (4.10) shows that the general average of the flexibility dimension was medium with an arithmetical average of (2.71), while the arithmetical averages for the items ranged between (2.37 and 2.92), whereas the paragraph that states the enterprise has the ability to use its resources in different areas was ranked first with an arithmetic mean of (2.92) with a medium degree, and the paragraph that states, the enterprise has the ability to adapt and reallocate the use of its resources was ranked second with an arithmetic mean of (2.90) with a medium degree, thus the last paragraph which states, the entity has the ability to adapt and reallocate the use of its resources which came in the fifth rank with an arithmetic average of (2.37) with a medium degree.

4.4 Third's Question Findings

To test the validity of the hypotheses, simple linear regression analysis using enter method to determine the effect of (digital knowledge, digital business environment,

digital finance, digital leadership, and digital entrepreneurial culture for micro and small enterprises) in achieving competitive advantage. Below is a presentation of these results:

The first hypothesis: There is no statistically significant impact at (α=0.05) of digital entrepreneurship in achieving competitive advantage in micro and small enterprises operating at king Hussain Business Park. To test this hypothesis, the results of multiple regression analysis were extracted to determine the Impact of Digital Entrepreneurship in Achieving Competitive Advantage, and table (4.11) shows these results.

Table (4.11) The results of multiple regression analysis were extracted to determine the impact of digital entrepreneurship in achieving competitive advantage

Dependent variable	**model summary**		**ANOVA**			**Coefficient**				
	R	R^2	F	df	sig	statement	β	S.E	T	sig
competitive advantage	0.681	0.463	39.984	50	0.000	digital knowledge	0.201	0.048	2.485	0.014
						digital business environment	0.190	0.102	1.598	0.009
						digital finance	0.234	0.075	2.412	0.017
						digital leadership	0.184	0.072	2.948	0.000
						digital entrepreneurial culture	0.213	0.050	2.389	0.000

The results of the multiple regression analysis, as shown in Table (4.11), indicate a significant relationship between digital entrepreneurship and competitive advantage. The correlation coefficient (R) value of (0.681) suggests a positive association between these variables. The determination coefficient (R^2) value of 0.463 indicates that approximately (46.3%) of the variation in competitive advantage can be explained by digital entrepreneurship. The statistically significant F value of (39.984) ($p < 0.001$) with 5 degrees of freedom further support the finding of a significant impact of digital entrepreneurship on competitive advantage at a significance level ($a = 0.05$). The coefficients table reveals that the different areas of digital entrepreneurship (digital knowledge, digital business environment, digital finance, digital leadership & digital

entrepreneurial culture) have significant effects on competitive advantage. The β values for these areas were 0.201, 0.190 0.234, 0.184 and 0.213 respectively. The standard errors were 0.048, 0.102, 0.075, 0.072 and 0.050 and the corresponding T values were 2.485, 1.598, 2.412, 2.948 and 2.389 The significance levels (Sig) associated with these effects were 0.014, 0.009, 0.017, 0.000 and 0.000 respectively. Based on these results, we can reject the null hypothesis and accept the alternative hypothesis, which states that there is statistically significant impact at (α=0.05) of digital entrepreneurship in achieving competitive advantage in micro and small enterprises operating at king Hussain Business Park.

Results Related to The Sub-Hypothesis.

Results related to the first sub-hypothesis

H0 1.1: There is no statistically significant impact at (α = 0.05) of digital knowledge in achieving competitive advantage in micro and small enterprises operating at king Husain Business Park.

To examine the hypothesis regarding the impact of digital knowledge in achieving competitive advantage, a simple regression analysis was conducted, and the results are presented in Table (4.12).

Table (4.12) Results of simple regression analysis for the impact of digital knowledge in achieving competitive advantage

Independent variable	model summary		ANOVA			Coefficient				
digital knowledge	R	R^2	F	df	sig	statement	β	S.E	T	sig
	0.489	0.239	59.988	50	0.000	competitive advantage	0.473	0.068	7.978	0.000

The table (4.12) indicate that there is a statistically significant effect of digital knowledge on competitive advantage (Cost, Quality & flexibility). The correlation coefficient (R) value of 0.489 suggests a positive relationship between digital knowledge

and competitive advantage (Cost, Quality & flexibility). The determination coefficient (R2) value of 0.239 indicates that digital knowledge explains 23.9 % of the variance in competitive advantage (Cost, Quality & flexibility). The F value of 59.988 is statistically significant at a significance level of 0.000, suggesting that the regression model is significant. The beta value for digital knowledge is 0.473, with a standard error of 0.068, and a T value of 7.978, which is statistically significant at a significance level of 0.000. Based on these results, the null hypothesis is rejected, and the alternative hypothesis is accepted, indicating that there is a statistically significant effect of digital knowledge in achieving competitive advantage in micro and small enterprises operating at king Husain Business Park.

Results related to the second sub-hypothesis.

H0 1.2: There is no statistically significant impact at ($\alpha = 0.05$) of digital business environment in achieving competitive advantage in micro and small enterprises operating at king Husain Business Park.

To examine the hypothesis regarding the impact of digital business environment in achieving competitive advantage, a simple regression analysis was conducted, and the results are presented in Table (4.13).

Table (4.13) Results of simple regression analysis for the impact of digital business environment in achieving competitive advantage

Independent variable	model summary		ANOVA			Coefficient				
digital business environment	R	R^2	F	df	sig	statement	β	S.E	T	sig
	0.512	0.262	60.102	50	0.000	competitive advantage	0.503	0.064	7.414	0.000

The table (4.13) indicate that there is a statistically significant effect of digital business environment on competitive advantage (Cost, Quality & flexibility). The correlation coefficient (R) value of 0.512 suggests a positive relationship between digital

business environment and competitive advantage (Cost, Quality & flexibility). The determination coefficient (R2) value of 0.262 indicates that digital business environment explains 26.2% of the variance in competitive advantage (Cost, Quality & flexibility). The F value of 60.102 is statistically significant at a significance level of 0.000, suggesting that the regression model is significant. The beta value for digital business environment is 0.503, with a standard error of 0.064, and a T value of 7.414, which is statistically significant at a significance level of 0.000. Based on these results, the null hypothesis is rejected, and the alternative hypothesis is accepted, indicating that there is a statistically significant effect of digital business environment in achieving competitive advantage in micro and small enterprises operating at king Husain Business Park.

Results related to the third sub-hypothesis.

H0 1.3: There is no statistically significant impact at ($\alpha = 0.05$) of digital finance in achieving competitive advantage in micro and small enterprises operating at king Husain Business Park.

To examine the hypothesis regarding the impact of digital finance in achieving competitive advantage, a simple regression analysis was conducted, and the results are presented in Table (4.14).

Table (4.14) Results of simple regression analysis for the impact of digital finance in achieving competitive advantage

Independent variable	model summary		ANOVA			Coefficient				
digital finance	R	R^2	F	df	sig	statement	β	S.E	T	sig
	0.598	0.357	61.001	50	0.000	competitive advantage	0.564	0.070	7.375	0.000

The table (4.14) indicate that there is a statistically significant effect of digital finance on competitive advantage (Cost, Quality & flexibility). The correlation coefficient (R) value of 0.598 suggests a positive relationship between digital finance and competitive

advantage (Cost, Quality & flexibility). The determination coefficient (R2) value of 0.357 indicates that digital finance explains 35.7% of the variance in competitive advantage (Cost, Quality & flexibility). The F value of 61.001 is statistically significant at a significance level of 0.000, suggesting that the regression model is significant. The beta value for digital finance is 0.564 with a standard error of 0.070 and a T value of 7.375 which is statistically significant at a significance level of 0.000. Based on these results, the null hypothesis is rejected, and the alternative hypothesis is accepted, indicating that there is a statistically significant effect of digital finance in achieving competitive advantage in micro and small enterprises operating at king Husain Business Park.

Results related to the fourth sub-hypothesis.

H0 1.4: There is no statistically significant impact at ($\alpha = 0.05$) of digital leadership in achieving competitive advantage in micro and small enterprises operating at king Husain Business Park.

To examine the hypothesis regarding the impact of digital leadership in achieving competitive advantage, a simple regression analysis was conducted, and the results are presented in Table (4.15).

Table (4.15) Results of simple regression analysis for the impact of digital leadership in achieving competitive advantage

Independent variable	model summary		ANOVA			Coefficient				
digital leadership	R	R^2	F	df	sig	statement	β	S.E	T	sig
	0.601	0.361	60.367	50	0.000	competitive advantage	0.617	0.082	7.601	0.000

The table (4.15) indicate that there is a statistically significant effect of digital leadership on competitive advantage (Cost, Quality & flexibility). The correlation coefficient (R) value of 0.601 suggests a positive relationship between digital leadership and competitive advantage (Cost, Quality & flexibility). The determination coefficient

(R2) value of 0.361 indicates that digital leadership explain 36.1% of the variance in competitive advantage (Cost, Quality & flexibility). The F value of 60.367 is statistically significant at a significance level of 0.000, suggesting that the regression model is significant. The beta value for digital leadership is 0.617, with a standard error of 0.082 and a T value of 7.601, which is statistically significant at a significance level of 0.000. Based on these results, the null hypothesis is rejected, and the alternative hypothesis is accepted, indicating that there is a statistically significant effect of digital leadership in achieving competitive advantage in micro and small enterprises operating at king Husain Business Park.

Results related to the fifth sub-hypothesis.

H0 1.5: There is no statistically significant impact at ($\alpha = 0.05$) of digital entrepreneurial culture in achieving competitive advantage in micro and small enterprises operating at king Husain Business Park**.**

To examine the hypothesis regarding the impact of digital leadership in achieving competitive advantage, a simple regression analysis was conducted, and the results are presented in Table (4.16).

Table (4.16): Results of simple regression analysis for the impact of digital entrepreneurial culture in achieving competitive advantage

Independent variable	model summary		ANOVA			Coefficient				
digital entrepreneurial culture	R	R^2	F	df	sig	statement	β	S.E	T	sig
	0.478	0.228	60.874	50	0.000	competitive advantage	0.578	0.068	7.198	0.000

The table (4.16) indicate that there is a statistically significant effect of digital entrepreneurial culture on competitive advantage (Cost, Quality & flexibility). The correlation coefficient (R) value of 0.478 suggests a positive relationship between digital entrepreneurial culture and competitive advantage (Cost, Quality & flexibility). The

determination coefficient (R2) value of 0.228 indicates that digital entrepreneurial culture explains 22.8% of the variance in competitive advantage (Cost, Quality & flexibility). The F value of 60.874 is statistically significant at a significance level of 0.000, suggesting that the regression model is significant. The beta value for digital entrepreneurial culture is 0.578, with a standard error of 0.068 and a T value of 7.198, which is statistically significant at a significance level of 0.000. Based on these results, the null hypothesis is rejected, and the alternative hypothesis is accepted, indicating that there is a statistically significant effect of digital entrepreneurial culture in achieving competitive advantage in micro and small enterprises operating at king Husain Business Park.

CHAPTER FIVE

Results Discussion and Recommendations

5.1 Results Discussion

Building on the comprehensive analysis featured in Chapter 4, which encompassed a detailed descriptive statistical analysis of the study's variables along with rigorous hypothesis testing, this chapter aims to summarize the collective insights and conclusions derived by the researcher. These insights directly respond to the initial study questions and objectives outlined in Chapter 1, where the problem was defined and hypotheses were formulated. Moreover, this chapter will articulate a series of informed recommendations, which are thoughtfully constructed based on the empirical evidence and key findings of the study.

a. Results Discussion and Conclusion

b. Descriptive results of the study variables

The results indicate that the level of application of digital (Digital knowledge, Digital entrepreneurial culture, Digital business environment, Digital leadership, and Digital finance) entrepreneurship in micro and small enterprises operating at King Hussain Business Park got Medium degree with an arithmetical average of (2.49), This result can be explained by the fact that companies have a moderate understanding of digital tools and technologies, some of them use digital technologies but do not fully exploit the potential, and some of them are not updated with the latest digital trends and innovations.

This result agrees with (Wibowo al., 2023) The results showed an average level of digital leadership, This result differs with the study of (Saura et al, 2021) The study indicated that digital entrepreneurship is critical for Moroccan businesses.

Below is a detailed discussion of the dimensions of digital entrepreneurship:

1. Digital Knowledge

The current study's findings on the digital knowledge dimension in the enterprise indicate a medium overall performance, with an arithmetic mean of 2.62. This suggests that while there is some degree of digital knowledge and application within the enterprise, there remains significant room for improvement.

The Application of Computers is the highest-ranked aspect of digital knowledge within the enterprise. The enterprise uses computers suitable for the provided digital services, achieving the first rank with an arithmetic mean of 2.86. This indicates a medium degree of application and suggests that the enterprise recognizes the importance of having appropriate technological tools and invests in computers that support their digital service offerings.

The enterprise's acknowledgment of having the necessary digital capabilities ranked second with an arithmetic mean of 2.78, also categorized as a medium degree. This shows the enterprise's awareness and adoption of necessary digital skills and capabilities, though there is still potential for further enhancement to fully leverage digital opportunities.

The aspect the enterprise communicates digitally with its people ranked fifth and last with an arithmetic mean of 2.25, falling into the low degree category. This indicates a significant area for improvement for the enterprise. Effective digital communication is crucial for internal coordination, knowledge sharing, and engaging with the external environment. The low rank in this area suggests that while the enterprise may have some digital infrastructure and skills, it is not yet fully utilizing digital communication methods to its advantage or integrating them effectively into its everyday operations.

In summary, the enterprise demonstrates a medium level of digital knowledge overall, with particular strengths in adopting suitable computers for digital services. However, it needs to enhance its digital communication strategies and continue building its digital capabilities to improve its overall digital knowledge and application. By addressing these areas, the enterprise can more effectively leverage digital technologies for business operations and strategy.

2. Dimension of Digital Business Environment

The current study's findings regarding the digital business environment dimension indicate that enterprises generally exhibit a medium level of performance with an arithmetic average of 2.48. This suggests that while there is a moderate engagement with digital business environment practices, there is still considerable room for improvement across various aspects. The highest-ranked item is the enterprise offers the needed digital technology tools, achieving the first rank with an arithmetic mean of 2.63, categorized as a medium degree. This indicates that the enterprise is relatively adept at providing the necessary digital tools for its operations, acknowledging the importance of technological support in the digital business environment.

The second-ranked aspect is the enterprise offers excellent internet connection, with an arithmetic mean of 2.62, also falling under the medium degree category. This placement suggests that the enterprise recognizes the importance of a reliable internet connection in conducting digital business.

The aspect the enterprise efficiently handles digital services ranked fifth and last with an arithmetic mean of 2.08, falling into the low degree category. This indicates a significant area for improvement for the enterprise. Efficient handling of digital services is critical for operational success, customer satisfaction, and competitive advantage. The

low ranking in this area suggests that while the enterprise may have basic digital infrastructure, its effectiveness and efficiency in managing and delivering digital services are not yet at an optimal level.

In summary, shows a medium level of digital business environment practices, particularly in providing necessary digital tools and ensuring a reliable internet connection, it falls significantly short in the efficient handling and management of digital services. Improving efficiency and effectiveness in digital service delivery is crucial for the enterprise to fully capitalize on its digital business environment and enhance its overall performance and competitiveness.

3. Dimension of Digital Finance

The current study's findings on the digital finance dimension in the enterprise indicate an overall medium performance level with an arithmetic average of 2.34. This suggests that while enterprises are somewhat engaged in managing digital finance, there is noticeable room for improvement in several aspects.

The top-ranked item is the enterprise manages digital emergency expenses in the case of a financial disruption, which was ranked first with an arithmetic mean of 2.55, categorized as a medium degree. This indicates that the enterprise is relatively prepared to handle unexpected financial issues digitally, suggesting a proactive approach to financial risk management in the digital domain.

Similarly ranked second with an arithmetic mean of 2.55 and classified as a medium degree is the aspect the enterprise updates the digital services budget. This shows that the enterprise is moderately active in reviewing and adjusting its budget for digital services, which is essential for sustaining and scaling digital operations.

The aspect the enterprise provides an annual report that estimates the sustainability of the funding policy was ranked fifth and last, with an arithmetic mean of 1.94, categorized as a low degree. This low ranking indicates a significant shortfall in the enterprise's practices to evaluate and communicate the long-term sustainability of its digital financing strategy. Providing such reports is critical for understanding the financial health and future viability of digital initiatives.

In summary, while the enterprise demonstrates a medium level of engagement with digital finance, particularly in managing emergency expenses and updating budgets for digital services, it substantially lags in assessing and reporting the sustainability of its digital finance policies. To enhance its digital financial management and strategic planning, the enterprise should focus on improving its financial reporting and long-term sustainability assessments, ensuring that its digital initiatives are financially viable and aligned with broader business goals.

4. Dimension of Digital Leadership

The current study's findings indicate that the overall average for the digital leadership dimension in the enterprise is medium, with an arithmetic mean of 2.44. This suggests a moderate level of digital leadership within the enterprise, highlighting areas of both strength and needed improvement in leading digital initiatives.

The highest-ranked item is the enterprise provides a special digital card for each employee, which achieved the first rank with an arithmetic mean of 2.63, categorized as a medium degree. This indicates that the enterprise is investing in digital identity and access management, ensuring that employees have the necessary digital credentials. Such a measure can be pivotal in empowering employees and streamlining their access to digital resources, reflecting a proactive digital leadership approach.

The aspect the enterprise hires experienced people to provide it with digital technologies was ranked fifth with an arithmetic mean of 2.16, falling into the low degree category. This indicates a significant gap in the enterprise's approach to digital leadership, particularly in acquiring human resources with the necessary digital expertise. The low ranking suggests that the enterprise may not be sufficiently prioritizing the recruitment of skilled individuals who can drive and support its digital transformation efforts.

In summary, while the enterprise shows some initiative in digital leadership through measures like providing digital cards to employees, it falls short in other critical areas, most notably in hiring experienced personnel for digital technology roles. Enhancing the recruitment and retention of skilled digital talent is essential for bolstering the enterprise's digital leadership capabilities, fostering innovation, and maintaining competitive advantage in an increasingly digital business landscape.

5. Dimension of Digital Entrepreneurial Culture

The current study's findings indicate that the overall average for the digital entrepreneurial culture dimension for micro and small enterprises is medium , with an arithmetic average of 2.56. This suggests that, overall, there is a significant engagement with digital entrepreneurial culture within these enterprises, with certain aspects performing better than others.

The top-ranked item is the enterprise uses digital entrepreneurial culture to achieve goals, which was ranked first with an arithmetic average of 3.00, categorized as a medium degree. This indicates that the enterprises are actively leveraging their digital entrepreneurial culture to meet their objectives. Emphasizing such a culture likely involves encouraging innovation, risk-taking, and the adoption of new digital technologies to drive business success.

The second-ranked aspect is the enterprise relies on digital tools to carry out its administrative functions, with an arithmetic average of 2.68, also falling under the medium degree category. This suggests that enterprises moderately rely on digital tools for streamlining and managing their administrative tasks. While they are making use of digital solutions to enhance efficiency and organization, there is room for further integration and optimization of these tools in their operations.

The last ranked aspect is the enterprise encourages communication with customers through digital technologies, which came in fifth with an arithmetic average of 2.25, categorized as a low degree. This indicates a significant area for improvement for the enterprises. Customer communication is crucial in today's digital age, and the low score suggests that the enterprises may not be fully capitalizing on digital technologies to engage with their customers, gather feedback, and provide support, which are all essential for maintaining competitive advantage and fostering customer loyalty.

In summary, while the general average for the digital entrepreneurial culture dimension indicates a medium level of engagement, the varying degrees of performance across different aspects suggest a nuanced picture. Micro and small enterprises are effectively using digital culture to pursue their goals and moderately employing digital tools for administrative purposes. However, they are less adept at utilizing digital technologies for customer communication, which is a critical area for potential growth and enhancement to fully embrace a comprehensive digital entrepreneurial culture.

The results showed that the level of Competitive advantage (Cost, Quality, and Flexibility) in micro and small enterprises was a medium level with an arithmetic mean of (2.65).

The results indicating that the level of competitive advantage, encompassing cost, quality, and flexibility, in micro and small enterprises is at a medium level with an arithmetic mean of 2.65, suggest a moderate positioning of these enterprises in the competitive landscape. Specifically, a medium level implies that while these enterprises are somewhat effective in managing costs, ensuring quality, and maintaining flexibility in their operations and offerings, there is still considerable room for improvement. They may not be at the lowest end of the competitive spectrum, indicating some established strategies and capabilities, but they also aren't leading the market in these aspects.

This result agrees with (Qurna, 2014) respondents had positive evaluations of competitive advantage in all of its characteristics (cost, quality, and flexibility).

Below is a detailed discussion of the dimensions of competitive advantage:

1. **Cost Dimension**

The current study's findings indicate that the overall average for the cost dimension within the enterprise stands at a medium level, with an arithmetic average of 2.66. This indicates that the enterprises are performing moderately in terms of cost management related to digital services, yet there is an apparent potential for further refinement and efficiency.

The highest-ranked aspect is the enterprise is responsible for cost planning, which achieved the first rank with an arithmetic mean of 2.90, categorized as a medium degree. This suggests that the enterprises are relatively proactive and diligent in planning the costs associated with their operations. Effective cost planning is a critical element of financial management, and its medium rating indicates that while there is a solid foundation, there is also room for more strategic and optimized planning.

Following closely, the enterprise monitors the expenditure of digital services ranked second with an arithmetic mean of 2.86, also under the medium category. This reflects that the enterprises moderately monitor and manage the costs incurred from digital services. Monitoring is vital for maintaining cost-effectiveness and ensuring that digital investments are yielding the desired value, and the enterprises are reasonably active in this area, albeit with space for improvement.

The lowest-ranked aspect is the enterprise is committed to the budget allocated to cover the cost of digital services, which came in fifth with an arithmetic average of 2.36, still within the medium degree. The lower ranking in this area indicates that enterprises may struggle or be inconsistent in adhering to the set budget for digital services. Commitment to a budget is crucial for financial discipline and resource allocation, and this result suggests a need for more stringent controls and adherence to budgetary constraints to improve cost management in digital endeavors.

In summary, while the overall cost dimension shows a medium level of performance among the enterprises, the detailed aspects reveal varying degrees of effectiveness in cost management strategies. Notably, while enterprises exhibit a moderate ability in planning and monitoring costs, their commitment to maintaining budgets for digital services is less pronounced. Addressing this gap could lead to more robust financial management and a stronger competitive edge in managing the costs associated with digital services.

2. Quality Dimension

The current study's findings indicate that the overall average for the of the quality dimension in enterprises, with an arithmetic mean of 2.59. This suggests a moderate level of commitment and achievement in delivering high-quality digital services, with potential for improvement in specific areas.

The highest-ranked aspect is the enterprise promotes the culture of high-quality digital services that it provides, with an arithmetic mean of 2.86, categorized as a medium degree. This indicates that the enterprise places importance on cultivating a culture that values high-quality digital services. The emphasis on culture suggests that there is an understanding and recognition of the importance of quality, which is foundational for continuous improvement and excellence in digital service provision.

Next, the enterprise allocates material support to stimulate the highest quality standards ranked second with an arithmetic mean of 2.61, also under the medium category. This reflects that the enterprise is moderately committed to backing its quality aspirations with the necessary resources. Material support could include investing in technology, training, or other resources that contribute to achieving higher quality standards.

The aspect the enterprise allocates financial support to stimulate the highest quality standards was ranked fifth with an arithmetic mean of 2.31, falling into the low degree category. This indicates a significant area for improvement for the enterprise. While there might be an acknowledgment of the need for high-quality standards, the lower ranking in financial allocation suggests a gap between recognizing the importance of quality and actually investing financial resources to achieve it. Enhancing financial commitment is crucial for acquiring quality tools, technologies, and expertise.

In summary, while the overall quality dimension indicates a medium level of performance, the nuances across the aspects reveal areas of strengths and weaknesses. The enterprises show a commendable effort in promoting a culture of quality and providing material support for quality standards. However, they fall short in the crucial aspect of financial allocation for quality enhancement, which is essential for actualizing

high-quality standards in digital services. Addressing this discrepancy is vital for ensuring that quality aspirations are matched with tangible support and investments.

3. Flexibility Dimension

The current study's findings indicate that the overall average for the reflecting on the flexibility dimension, the findings indicate that the general average for the flexibility dimension in enterprises is medium, with an arithmetic mean of 2.71. This suggests that while there is a certain level of adaptability and resource allocation capability within the enterprises, there remains room for improvement to fully capitalize on flexibility as a competitive advantage.

The highest-ranked aspect is the enterprise has the ability to use its resources in different areas, which achieved the first rank with an arithmetic mean of 2.92, categorized as a medium degree. This indicates that the enterprise is relatively adept at leveraging its resources across various operational areas. The ability to utilize resources flexibly and in diverse contexts is crucial for responding to changing market demands and exploiting new opportunities.

The enterprise has the ability to adapt and reallocate the use of its resources ranked second with an arithmetic mean of 2.90, also falling under the medium category. This shows that the enterprise has a moderate capability to adjust and reallocate its resources in response to shifts in the business environment or strategic priorities. Adaptability in resource allocation is essential for maintaining operational efficiency and pursuing strategic objectives effectively.

In summary, the overall medium performance in the flexibility dimension suggests that enterprises recognize the importance of flexibility and demonstrate a certain level of capability in resource utilization and adaptability. However, the varying degrees of

effectiveness across different aspects of flexibility indicate areas where further development and strategic focus could enhance the enterprise's ability to navigate and thrive in dynamic and competitive environments. Ensuring consistent and effective adaptability and resource allocation across all operational areas will be key to maximizing the benefits of flexibility as a strategic asset.

5.2 Discuss the Results of Hypotheses Analysis

Following the statistical analysis of the data gathered from the responses of the sample members, a series of results have been obtained that can be discussed as follows:

H01: There is no statistically significant impact at (α=0.05) of digital entrepreneurship in achieving competitive advantage in micro and small enterprises operating at king Hussain Business Park.

The results pertaining to the main hypothesis reveal that digital entrepreneurship has a statistically significant impact on achieving competitive advantage in small and micro enterprises operating in King Hussein Business Park, with the level of significance set at ($\alpha = 0.05$). This finding underscores that digital entrepreneurship is a critical factor in driving competitive advantage, indicating that enterprises embracing digital entrepreneurial practices, strategies, and technologies are more likely to achieve superior competitive positioning. The results affirm the importance of integrating digital entrepreneurship into the core strategic framework of small and micro enterprises to enhance their competitive edge and performance in the dynamic business environment of King Hussein Business Park.

This result agrees with (Qurna, 2014) The study found that the dimensions of the entrepreneurial organization had a statistical significant effect on obtaining long-term competitive advantage in small and medium-sized enterprises, (Nafis et al, 2022) The

main results indicated that organizational entrepreneurship has a positive influence on both innovation .

The First Sub-Hypothesis

H0 1.1: There is no statistically significant impact at (α = 0.05) of digital knowledge in achieving competitive advantage in micro and small enterprises operating at king Husain Business Park.

The results indicate a statistically significant impact at the level (α = 0.05) of digital knowledge on achieving competitive advantage in small and micro enterprises operating in King Hussein Business Park. This signifies that digital knowledge — encompassing understanding, skills, and application of digital technologies — is a crucial factor in driving the competitive positioning of these enterprises. The significance of digital knowledge suggests that businesses with a higher proficiency and strategic implementation of digital technologies are better positioned to innovate, operate efficiently, and respond to market changes, thereby gaining a competitive edge. This finding underscores the importance of investing in digital skills and knowledge as key components of the strategic development for small and micro enterprises seeking to thrive in the modern digital economy.

The Second Sub-Hypothesis

H0 1.2: There is no statistically significant impact at (α = 0.05) of digital business environment in achieving competitive advantage in micro and small enterprises operating at king Husain Business Park.

The findings demonstrate a statistically significant impact at the level (α = 0.05) of the digital business environment on achieving competitive advantage for small and micro enterprises operating in King Hussein Business Park. This result indicates that the elements making up the digital business environment — such as digital infrastructure, e-

commerce platforms, digital market access, and regulatory frameworks — play a crucial role in shaping the competitive dynamics for these enterprises. A conducive digital business environment enables firms to leverage technology effectively, innovate, reach broader markets, and streamline operations. Consequently, those enterprises that are adept at navigating and utilizing the digital business environment are likely to outperform their peers and achieve a stronger competitive position. This finding highlights the importance for small and micro enterprises to understand and integrate into the digital business ecosystem to enhance their competitive advantage in today's increasingly digital market landscape.

The Third Sub-Hypothesis

H0 1.3: There is no statistically significant impact at ($\alpha = 0.05$) of digital finance in achieving competitive advantage in micro and small enterprises operating at king Husain Business Park

The results indicate a statistically significant impact at the level ($\alpha = 0.05$) of digital finance on achieving competitive advantage in small and micro enterprises operating in King Hussein Business Park. This signifies that the application and management of digital financial resources, tools, and services—such as digital payment systems, online financial management, crowd funding, and digital investment—are crucial elements in enhancing the competitive positioning of these enterprises. Digital finance offers a range of benefits including improved transaction speed, better financial data management, enhanced access to capital, and more efficient resource allocation. The findings suggest that enterprises that effectively leverage digital finance are likely to achieve greater financial efficiency, agility, and innovation capacity, thus securing a competitive edge. This underscores the importance of integrating digital financial practices into the operational and strategic framework to drive growth and competitiveness in the digital age.

The Fourth Sub-Hypothesis

H0 1.4: There is no statistically significant impact at (α = 0.05) of digital leadership in achieving competitive advantage in micro and small enterprises operating at king Husain Business Park.

The findings reveal a statistically significant effect at the level (α = 0.05) of digital leadership on achieving competitive advantage in small and micro enterprises operating in King Hussein Business Park. This implies that digital leadership, which encompasses the ability to vision, drive, and manage digital transformation and innovation, is a critical determinant of competitive success for these enterprises. Digital leadership involves not just understanding and keeping up with digital trends but strategically integrating them into the business model, fostering a culture of innovation, and navigating the organization through digital challenges and opportunities. The results suggest that enterprises led by individuals or teams with strong digital leadership skills are better positioned to exploit digital technologies, innovate their processes, adapt to changing digital market demands, and ultimately achieve a superior competitive stance. This underscores the importance for small and micro enterprises to cultivate strong digital leadership capabilities to guide their strategic direction and operational execution in the rapidly evolving digital economy.

The Fifth Sub-Hypothesis

H0 1.5: There is no statistically significant impact at (α = 0.05) of digital entrepreneurial culture in achieving competitive advantage in micro and small enterprises operating at king Husain Business Park.

The results highlight a statistically significant impact at the level (α = 0.05) of the digital entrepreneurial culture on achieving competitive advantage in small and micro enterprises operating in King Hussein Business Park. This signifies that fostering a culture of digital entrepreneurship — characterized by embracing innovation, risk-taking,

continuous learning, and adaptability in the digital domain — is crucial for businesses striving for a competitive edge. A culture of digital entrepreneurship encourages businesses to explore and exploit digital technologies, innovate their products and services, engage with digital markets, and respond dynamically to digital trends and consumer demands. The findings suggest that businesses ingrained with this culture are more likely to identify and capitalize on digital opportunities, streamline their operations using digital solutions, and effectively compete in the increasingly digital marketplace. This underscores the importance of nurturing a digital entrepreneurial mindset and culture within small and micro enterprises to drive their growth, innovation, and competitive positioning in the digital age.

5.3 Recommendations

Following the data analysis, hypothesis testing, and a comprehensive discussion and interpretation of the results, the study proposes the subsequent recommendations:

1. Optimize Digital Service Management: Enhance the efficiency of handling and delivering digital services for operational success and heightened customer satisfaction.
2. Reinforce Financial Reporting: Establish and execute robust mechanisms for financial reporting to evaluate and convey the sustainability of digital financing strategies.
3. Prioritize Recruitment of Digital Prowess: Invest in hiring individuals with significant digital expertise to fortify leadership in the digital realm within the organization.
4. Revamp Customer Communication Strategies: Devise and implement effective strategies for engaging customers through digital technologies, collecting feedback, and providing support.

5. Enhance Adherence to Budget: Strengthen the commitment to the budget designated for digital services to ensure financial discipline.
6. Increase Financial Allocation for Excellence: Allocate ample financial resources to foster the highest quality standards in digital services.
7. Augment Resource Allocation Capability: Concentrate on further developing the capacity to adapt and reallocate resources in response to shifts in the business environment.

5.4 Suggestions for Future Studies

1. Perform comparative studies across different industries and sectors to evaluate the effectiveness of digital entrepreneurship strategies on competitive advantage in varied organizational contexts.
2. Undertake longitudinal studies to assess the enduring impacts of digital entrepreneurship on the competitive advantage of businesses. This will provide insight into the sustainability and long-term benefits of digital strategies.
3. Conduct comparative analyses between enterprises that have embraced digital entrepreneurship and those that have not to understand the differential impacts and identify best practices.
4. Investigate the influence of digital entrepreneurship on competitive advantage across different cultural contexts to understand how cultural nuances impact the adoption and effectiveness of digital strategies.
5. Employ a mixed-methods approach by complementing quantitative data with qualitative analyses to gain a deeper understanding of how digital entrepreneurship influences competitive advantage. This could involve case studies, interviews, and observational studies to capture the nuances of digital entrepreneurship.

References

Al-Hyari, K. (2020). Initial Empirical Evidence on How Jordanian Manufacturing Smes Cope With The COVID-19 Pandemic. *Academy of Strategic Management Journal*, *19*(1), 1–12.

Ali, B. J., & Anwar, G. (2021). Business strategy: The influence of Strategic Competitiveness on competitive advantage. *International Journal of Electrical, Electronics and Computers*, *6*(2), 1–10. https://doi.org/10.22161/eec.62.1

Almrshed, S. K. H., Tuckova, H. M. J. Z., & Hassan, A. S. (2023). The Effect of Innovation Management on Sustainable Competitive Advantage in Contemporary Organizations. *Journal of Law and Sustainable Development*, *11*(11), e1980. https://doi.org/10.55908/sdgs.v11i11.1980

Anckar, R. (2016). Digital Entrepreneurship in Finland–a Narrative of a finnish digital entrepreneur. In Innovative (Eco-) Technology, Entrepreneurship and Regional Development. Conference proceedings (Vol. 28, p. 2018).

Azoev, G. L., & Cherenkov, A. P. (2000). *Competitive advantage*. Novosti.

Baierl, R., Behrens, J., & Brem, A. (2019). Digital entrepreneurship. Springer.

Barigozzi, F., Tedeschi, P.(2019). On the credibility of ethical banking, Journal of Economic Behavior & Organization, 166, 381-402.

Bansal, S., & Kumar, A. (2020). Competitive advantage: Intelligent way of doing Business. *International Journal of Public Sector Performance Management*, *6*(2), 278–285. https://doi.org/10.1504/IJPSPM.2020.106756

Barney, J. B., & Hesterly, W. S. (2006). *Strategic Management and Competitive Advantage: Concepts and Cases*. Pearson.

Barton, R., & Thomas, A. (2009). Implementation of intelligent systems, enabling integration of SMEs to high-value supply chain networks. *Engineering Applications of Artificial Intelligence*, *22*(6), 929–938. https://doi.org/10.1016/j.engappai.2008.10.016

Bloom, N., Bunn, P., Chen, S., Mizen, P., & Smietanka, P. (2020, March 27). The Economic Relationship of Coronavirus on UK Businesses: Early Evidence from the Decision Maker Panel. *VOX CEPR Policy Portal*.

Cahyono, Y., Purwoko, D., Koho, I. R., Setiani, A., Supendi, Setyoko, P. I., Sosiady, M., & Wijoyo, H. (2023). The role of supply chain management practices on competitive advantage and performance of halal agroindustry SMEs. *Uncertain Supply Chain Management*, *11*(1), 153–160.

https://doi.org/10.5267/j.uscm.2022.10.012

Camilleri, M. A., & Isaias, P. (2021). The Corporate Communication Executives' Interactive Engagement Through Digital Media. *Strategic Corporate Communication in the Digital Age*, 53–72. https://doi.org/10.1108/978-1-80071-264-520211004

Cavallo, A., Ghezzi, A., Dell'Era, C., & Pellizzoni, E. (2019). Fostering Digital Entrepreneurship from Startup to Scaleup: The Role of Venture Capital Funds and Angel Groups. *Technological Forecasting and Social Change, 145*, 24–35.

Certo, S. T., & Miller, T. (2008). Social entrepreneurship: Key issues and concepts. *Business Horizons*, *51*(4), 267–271. https://doi.org/10.1016/j.bushor.2008.02.009

Chirumalla, K. (2021). Building digitally-enabled process innovation in the process industries: A dynamic capabilities approach. *Technovation*, *105*, 102256. https://doi.org/10.1016/j.technovation.2021.102256

Chotipurk, A., Nuchniyom, R., & Lakkhongkha, K. (2023). Preparing and Developing the Capabilities of Entrepreneurs in the Digital Age. *International Journal of Professional Business Review*, *8*(7), e02864. https://doi.org/10.26668/businessreview/2023.v8i7.2864

Christensen, H. K. (2010). Defining customer value as the driver of competitive advantage. *Strategy and Leadership*, *38*(5), 20–25. https://doi.org/10.1108/10878571011072048

Coetzee, M. (2019). Thriving in Digital Workspaces: Emerging Issues for Research and Practice. *Thriving in Digital Workspaces: Emerging Issues for Research and Practice*, *February*, 1–411. https://doi.org/10.1007/978-3-030-24463-7

Coyle, D. (2017). Precarious and Productive Work in the Digital Economy. *National Institute Economic Review*, *240*, R5–R14.

Danibrata, A. (2019). Enhancing Customer Loyalty Through Product Quality, Brand Commitment, and Brand Trust. *South East Asia Journal of Contemporary Business, Economics and Law*, *20*(2), 27–31.

Davidson, E., & Vaast, E. (2010). Digital Entrepreneurship and Its Sociomaterial Enactment. In *2010 43rd Hawaii International Conference on System Sciences* (pp. 1-10). Institute of Electrical and Electronics Engineer.

Day, G. S., & Schoemaker, P. J. H. (2016). Adapting to fast-changing markets and technologies. *California Management Review*, *58*(4), 59–77. https://doi.org/10.1525/cmr.2016.58.4.59

De, L., Dr, S., Hawkridge, G., Parlikad, A., Perez Hernandez, M., Schönfuß, B., Terrazas, G., Thorne, A., Tlegenov, Y., Arrand, H., Chaplin, J., Martinez, G., Dr, A., & Mcnally, M. (2019). *The Defence and Security Technology Competency Report Collaboration and leverage towards the UK 2035 landscape DIGITAL MANUFACTURING ON A SHOESTRING Low-cost digital solutions for SMEs*.

Dimitrova, R. (2014). Acculturation outcomes of Italian immigrant children and parents. In J. Merton (Ed.), *Acculturation: Psychology, processes and global perspectives* (pp. 153–165). Nova Science Publishers.

Dos Santos, E. F., De Carvalho, P. V. R., & Gomes, J. O. (2022). Interactions between e-commerce users during the COVID-19 pandemic period: What came and what remained. *Work*, *73*(s1), S177–S187. https://doi.org/10.3233/WOR-211136

Duspara, L., Knežević, S., & Duspara, M. (2016). Structure of manufacturing enterprises and their relationship on economy in Brodsko Posavska County. In *5th International scientific symposium-Economy of Eastern Croatia-vision and growth* (pp. 156).

Eschenbaecher, J., & Graser, F. (2011). Managing and optimizing innovation processes in collaborative and value creating networks. *International Journal of Innovation and Technology Management*, *8*(3), 373–391. https://doi.org/10.1142/S0219877011002374

Femandes, C., Pires, R., & Alves, M. (2022). Digital Entrepreneurship and Sustainability: The State of the Art and Study Agenda. *MDPI Journal*, *15*(8), 1-15. https://doi.org/10.3390/economies11010003

Filipova, M. (2004). Assessment of the competitive advantage of the brewing Company, Sp. *Economics and management*, *Issue 2*, 53.

Firdous, S., & Farooqi, R. (2019). Service quality to e-service quality: A paradigm shift. *Proceedings of the International Conference on Industrial Engineering and Operations Management*, *2019*(MAR), 1656–1666.

Gareche, M., Hosseini, S. M., & Taheri, M. (2019). A Comprehensive Literature Review in Competitive Advantages of Businesses. *International Journal of Advanced Studies in Humanities and Social Science*, *8*(3), 223–240. https://doi.org/10.33945/sami/ijashss.2019.3.1

Gupta, G., & Bose, I. (2022). Digital transformation in entrepreneurial firms through information exchange with operating environment. *Information and Management*, *59*(3), 103243. https://doi.org/10.1016/j.im.2019.103243

Harrigan, K. R., & DiGuardo, M. C. (2015). Sustainability of Patent-Based Competitive Advantage. *SSRN Electronic Journal*, 1–45. https://doi.org/10.2139/ssrn.2544304

Hermans, J., Vanderstraeten, J., & Dejardin, M. (2000). *Ambitious entrepreneurship : Antecedents and consequences Faculty of Applied Economics*. *32*(0).

Hull, C. E., Hung, Y. T. C., Hair, N., Perotti, V., & Demartino, R. (2007). Taking advantage of digital opportunities: A typology of digital entrepreneurship. *International Journal of Networking and Virtual Organisations*, *4*(3), 290–303. https://doi.org/10.1504/IJNVO.2007.015166

Ilyas, M., Uddin, A., & Haleem, M. (2023). Digital entrepreneurial acceptance: an examination of technology acceptance model and do-it-yourself behavior. https://www.researchgate.net.

Javed, A., Yasir, M., Ali, M., & Majid, A. (2020). ICT-enabled innovation, enterprise value creation and the rise of electronic social enterprise. *World Journal of Entrepreneurship, Management and Sustainable Development*, *17*(2), 189–208. https://doi.org/10.1108/WJEMSD-01-2020-0004

Jordan, J., Stinkens, R., Jax, T., Engeli, S., Blaak, E. E., May, M., Havekes, B., Schindler, C., Albrecht, D., Pal, P., Heise, T., Goossens, G. H., & Langenickel, T. H. (2014). This article has been accepted for publication and undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process which may lead to differences between this version and the Version of Record. Please c. In *The Laryngoscope* (Vol. 44, Issue 0).

Karimi, J., & Walter, Z. (2021). The role of entrepreneurial agility in digital entrepreneurship and creating value in response to digital disruption in the newspaper industry. *Sustainability (Switzerland)*, *13*(5), 1–26. https://doi.org/10.3390/su13052741

Kende, M. (2015). ICTs for Inclusive Growth: E Entrepreneurship on the Open Internet. *The Global Information Report 2015: ICTs for Inclusive Growth*, 49–55. http://www3.weforum.org/docs/WEF_GITR2015.pdf

Klein, P. G., Barney, J. B., & Foss, N. J. (2012). Strategic Entrepreneurship. *SSRN Electronic Journal*, *2*. https://doi.org/10.2139/ssrn.2137050

Kotler, P., & Armstrong, G. (1996). *Principles of Marketing* (7th ed.). Prentice-Hall.

Kraus, S., Vonmetz, K., Bullini Orlandi, L., Zardini, A., & Rossignoli, C. (2023).

Digital entrepreneurship: The role of entrepreneurial orientation and digitalization for disruptive innovation. *Technological Forecasting and Social Change*, *193*(May), 122638. https://doi.org/10.1016/j.techfore.2023.122638

Kyurova, V., Yaneva, D., & Zlateva, D. (2019). Need of knowledge in digital marketing in entrepreneurial activity. *Revista Inclusiones, Número especial abril junio*. http://www.revistainclusiones.com/gallery/4%20vol%206%20num%202%202019es pabriljunio19incl.pdf

Landström, H. (2005). Pioneers in Entrepreneurship Research. *Crossroads of Entrepreneurship, January 2004*, 13–31. https://doi.org/10.1007/0-387-25987-2_2

Lumumba, J. P. (2021). Strategic Positioning , External Environment and Sustainable Firm's Competitive Advantage : a Review of Theoretical and. *International Journal of Social Science and Humanities Research ISSN*, *9*(4), 179–191. www.researchpublish.com

Marheine, C. (2020). Governance strategies to drive complementary innovation in iot platforms: A multiple case study. *Proceedings of the 15th International Conference on Business Information Systems 2020 "Developments, Opportunities and Challenges of Digitization", WIRTSCHAFTSINFORMATIK 2020*, *March*. https://doi.org/10.30844/wi_2020_g3

Masyhuri, M. (2023). Competitive Priorities as Operations Management Strategy Enablers. *International Journal of Management Science and Application*, *2*(2), 37–47. https://doi.org/10.58291/ijmsa.v2i2.132

Miller, D. (2016). *Measurement by the physical educator* (3rd ed.). WM. C. Brown Communication, INC.

Nafis, M. H. S., Kia, F. T., & ... (2022). The Impact of Organizational Entrepreneurship on Improving Competitive Advantage with Mediating Role of Innovation in Start-up Digital Industries. *Journal of System …*, *8*(4), 97–107. https://doi.org/10.30495/JSM.2022.1966437.1683

Nakavachara, V., & Sathirathai, S. (2021). Connecting locals to locals: Market discovery through e-commerce. *New Dimensions of Connectivity in the Asia-Pacific*, *118*, 157–201. https://doi.org/10.22459/ndcap.2021.05

Nambisan, S., & Baron, R. (2019). On the Costs of Digital Entrepreneurship: Role Conflict, Stress, and Venture Performance in Digital Platform-Based Ecosystems. *Journal of Business Research, early online*.

Nangara, V. (2021). Digital Entrepreneurship. https://www.researchgate.net.

Nasution, W. S. L. (2022). Digitalization of Marketing to Support MSMEs in the Midst of the Covid-19 Pandemic. *ABDIMAS TALENTA: Jurnal Pengabdian Kepada Masyarakat*, *7*(1), 222–230. https://doi.org/10.32734/abdimastalenta.v7i1.6546

Ngoasong, M. Z., & Kimbu, A. N. (2016). Informal microfinance institutions and development-led tourism entrepreneurship. *Tourism Management*, *52*, 430–439. https://doi.org/10.1016/j.tourman.2015.07.012

Noreen, S. (2015). *Relationship among Strategic Positioning, Strategic Customer Relationship Management and Organization ’s Performance Farzana Riasat MS Scholar, Department Of Management Sciences, University Of Sargodha Gujranwala*. *5*(1), 36–49.

Novita, D., & Husna, N. (2020). Competitive Advantage in the Company. *TECHNOBIZ : International Journal of Business*, *3*(1), 14. https://doi.org/10.33365/tb.v3i1.643

Ozer, M. (2005). Online business: Tailoring your business environment in order to compete. *International Journal of Information Management*, *25*(2), 137–149. https://doi.org/10.1016/j.ijinfomgt.2004.10.003

Park, H., Kim, S., Jeong, Y., & Minshall, T. (2021). Customer entrepreneurship on digital platforms: Challenges and solutions for platform business models. *Creativity and Innovation Management*, *30*(1), 96–115. https://doi.org/10.1111/caim.12404

Petropoulos, F., Apiletti, D., Assimakopoulos, V., Babai, M. Z., Barrow, D. K., Ben Taieb, S., Bergmeir, C., Bessa, R. J., Bijak, J., Boylan, J. E., Browell, J., Carnevale, C., Castle, J. L., Cirillo, P., Clements, M. P., Cordeiro, C., Cyrino Oliveira, F. L., De Baets, S., Dokumentov, A., … Ziel, F. (2022). Forecasting: theory and practice. *International Journal of Forecasting*, *38*(3), 705–871. https://doi.org/10.1016/j.ijforecast.2021.11.001

Piccoli, G. (2008). Information Technology in Hotel Management. *Cornell Hospitality Quarterly*, *49*(3), 282–296. https://doi.org/10.1177/1938965508320722

Prabowo, H., Sriwidadi, T., & Ikhsan, R. B. (2021). The Influence of Dynamic Capability on Sustainable. *Journal of Asian Finance, Economics and Business*, *8*(6), 949–959. https://doi.org/10.13106/jafeb.2021.vol8.no6.0949

Qurna, L. (2014). *The Relationship of the Dimensions of the Entrepreneurial Organization in Achieving Sustainable Competitiveness: A Field Study on Small and Medium Enterprises in the Capital Governorate, Amman* (Master's thesis).

Raut, J., & Mitrović-Veljković, S. (2023). Information technologies as a tool for the development of digital entrepreneurship and achieving a competitive advantage. *Serbian Journal of Engineering Management*, *8*(1), 1–5. https://doi.org/10.5937/sjem2301001r

Recker, J., & Von Briel, F. (2019). The Future of Digital Entrepreneurship Research: Existing and Emerging Opportunities. *Fortieth International Conference on Information Systems, Munich*.

Saoura, Z., Abriane, A., & Moumen, A. (2021). Digital entrepreneurship in Morocco: measurement model validation. *SHS Web of Conferences, 119*(7), 1-8.

Schiffer, M., & Weder, B. (2001). Firm Size and the Business Environment. *Firm Size and the Business Environment*, *43*. https://doi.org/10.1596/978-0-8213-5003-4

Sekaran, U., & Bougie, R. (2013). *Study Methods for Business: A Skill–Building Approach* (6th ed.). John Wiley and Sons.

Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review, 25*(1), 217-226.

Shehadeh, M., Almohtaseb, A., Aldehayyat, J., & Abu-AlSondos, I. A. (2023). Digital Transformation and Competitive Advantage in the Service Sector: A Moderated-Mediation Model. *Sustainability (Switzerland)*, *15*(3). https://doi.org/10.3390/su15032077

Shen, K. N., Lindsay, V., & Xu, Y. (Calvin). (2018). Digital entrepreneurship. *Information Systems Journal*, *28*(6), 1125–1128. https://doi.org/10.1111/isj.12219

Siddiqui, A. T., & Basha, A. F. (2013). E-business strategies to cut back cost of business enterprise. *Proceedings of the 2013 3rd IEEE International Advance Computing Conference, IACC 2013*, 520–524. https://doi.org/10.1109/IAdCC.2013.6514280

Singh, A. K., & Thirumoorthi. (2019). The impact of digital disruption technologies on customer preferences: The case of retail commerce. *International Journal of Recent Technology and Engineering*, *8*(3), 1255–1261. https://doi.org/10.35940/ijrte.C4404.098319

Skačkauskienė, I., Nekrošienė, J., & Szarucki, M. (2023). a Review on Marketing Activities Effectiveness Evaluation Metrics. *13th International Scientific Conference "Business and Management 2023."* https://doi.org/10.3846/bm.2023.1037

Sussan, F., Gould, S., & Weisfeld-Spolter, S. (2006). Location, location, location: the relative roles of virtual location, online word-of-mouth (eWOM) and advertising in the new-product adoption process. *NA-Advances in Consumer Research, Volume 33*.

Timoshenko, A., & Hauser, J. R. (2019). Identifying customer needs from user-generated content. *Marketing Science*, *38*(1), 1–20. https://doi.org/10.1287/mksc.2018.1123

Turi, A. N., & Li, X. S. (2022). *Data-Driven Decision-Making in Digital*. *April*.

Van Gils, A. (2005). Management and governance in Dutch SMEs. *European Management Journal*, *23*(5), 583–589. https://doi.org/10.1016/j.emj.2005.09.013

van Welsum, D. (2016). Enabling Digital Entrepreneurs. *Enabling Digital Entrepreneurs*. https://doi.org/10.1596/23646

van Welsum, D., & B. Lanvin (2012). *e-Leadership Skills – Vision Report*. European Commission, DG Enterprise and Industry. http://eskills-vision.eu/fileadmin/eSkillsVision/documents/Vision%20report.pdf

Varian, H. R. (2010). Computer Mediated Transactions (Richard T. Ely Lecture). *American Economic Review: Papers & Proceedings*, *100*(May), 1–10.

Von Briel, F., Davidsson, P., & Recker, J. (2018). Digital Technologies as External Enablers of New Venture Creation in the It Hardware Sector. *Entrepreneurship Theory and Practice*, *42*(1), 47-69.

Weeks, R. V., & Lessing, N. (2001). Convergence of emerging information technology and business practice in the digital economy. *SA Journal of Information Management*, *3*(3/4). https://doi.org/10.4102/sajim.v3i3/4.140

Wibowo, A., Narmaditya, B. S., Suparno, Sebayang, K. D. A., Mukhtar, S., & Shafiai, M. H. M. (2023). How does digital entrepreneurship education promote entrepreneurial intention? The role of social media and entrepreneurial intuition. *Social Sciences and Humanities Open*, *8*(1), 100681. https://doi.org/10.1016/j.ssaho.2023.100681

Wim, N., & Wemer, L. (2020). *Digital Entrepreneurship Research: A Concise Introduction*. Institute of Labor Economics (IZA).

Yaneva, A. (2017). *Made by the Office for Metropolitan Architecture. An Ethnography of Design*. 010 Publishers.

Zaheer, H., Breyer, Y., & Dumay, J. (2019). Digital entrepreneurship: An interdisciplinary structured literature review and research agenda. *Technological Forecasting and Social Change*, *148*(June 2018), 119735. https://doi.org/10.1016/j.techfore.2019.119735

Zahoor, Z., Ud-din, M., & Sunami, K. (2016). Challenges in Privacy and Security in Banking Sector and Related Countermeasures. *International Journal of Computer Applications*, *144*(3), 24–35. https://doi.org/10.5120/ijca2016910173

Zakharkina, L. (2023). Digital opportunities to ensure the transparency of financial relations in entrepreneurship. In *Digital opportunities to ensure the transparency of financial rela-tions in entrepreneurship* (Vol. 9). https://doi.org/10.46489/dotettof23-22

Zaridis, A. D. (2009). Competitive advantage and its sources in an evolving market. *AIP Conference Proceedings*, *1148 2*, 917–921. https://doi.org/10.1063/1.3225468

Zhang, J. J., Lichtenstein, Y., & Gander, J. (2015). Designing scalable digital business models. *Advances in Strategic Management*, *33*(October), 241–277. https://doi.org/10.1108/S0742-332220150000033006

Zhao, F., & Collier, A. (2016). Digital Entrepreneurship: Research and Practice. In *9th Annual Conference of the EuroMed Academy of Business* (pp. 2173-2182). EuroMed Academy of Business. ISBN 978-9963-711-43-7

Appendices

Appendix (1)

Study Questionnaire in Arabic

بسم الله الرحمن الرحيم

السادة والسيدات المحترمين

تم تصميم هذا الاستبيان لدراسة **تأثير الريادة الرقمية في تحقيق الميزة التنافسية: على المنشآت متناهية الصغيرة والصغر العاملة في مجمع الحسين للأعمال.** لقد تم اختيار مؤسستك لهذه الدراسة بناءً على استطلاع شامل. الدراسة أكاديمية بحتة وسيتم استخدام البيانات التي تقدمها فقط للبحث العلمي وستساعد في الحصول على فهم أفضل للتأثير الحقيقي لريادة الأعمال الرقمية في تحقيق النجاح. يجب تعبئة الاستبيان من قبل: المديرين والمالك والموظفين.

وبطبيعة الحال، ليس مطلوبًا منك التعريف بنفسك أو بشركتك، وسيتم الاحتفاظ بإجابتك بسرية تامة. سيكون للباحث فقط حق الوصول إلى البيانات التي تقدمها ولن يكون الاستبيان المكتمل متاحًا لأي شخص آخر غير الباحث. يمكن إرسال ملخص تنفيذي لنتائج البحث الرئيسية إلى الشركات المشاركة. إن تعاونكم الكريم في هذا البحث محل تقدير كبير للغاية ويأمل الباحث بشدة أن تجد الدراسة التي تهمك، ونأمل أن تهم مؤسستك.

شكرا جزيلا على وقتك وتعاونك.

الطالبة: سيبسا جلال

0796226414

الجزء الاول: البيانات الشخصية والوظيفية

يرجى وضع اشاره (√) في المربع الذي يصف وضعك بدقه

1. **الجنس:** ☐ ذكر ☐ انثى
2. **العمر:** ☐ اصغر من 30 سنه ☐ 30–40 اقل من سنه
   ☐ 40–50 اقل من سنه ☐ 50 فاكبر
3. **المؤهل العلمي:** ☐ دبلوم متوسط ☐ بكالوريوس
   ☐ دراسات عليا
4. **سنوات الخبرة:** ☐ اقل من 5 سنوات ☐ من 5 اقل 10 سنوات
   ☐ من 10 اقل 15 سنه ☐ 15 سنه فاكثر
5. **المسمى الوظيفي:** ☐ مالك ☐ مدير
   ☐ موظف

الجزء الثاني: ابعاد المتغير المستقل: ريادة الأعمال الرقمية:

هي العملية الديناميكية لتصور وتطوير وإدارة المشاريع التي تعمل بشكل أساسي في المجال الرقمي. يسخر نموذج ريادة الأعمال هذا القوة التحويلية للتقنيات الرقمية والإنترنت والمنصات عبر الإنترنت لتحديد واستغلال فرص الأعمال المبتكرة.

البعد الاول: المعرفة الرقمية:

وهي مجموعه من المعارف والخبرات والقدرات على استخدام الأجهزة والتقنيات الرقمية بشكل كفؤ ومفيد في بيئة العمل.

الرقم	الفقرة	موافق بشدة	موافق	موافق الى حد ما	غير موافق	غير موافق بشدة
.1	تمتلك المنشاة القدرات الرقمية المطلوبة لمهامها					
.2	تقوم المنشاة بالتوعية بخدماتها باستخدام وسائل التواصل الرقمية					
.3	تقدم المنشاة برامج التدريب الإلكترونية لموظفيها					
.4	تستخدم المنشاة اجهزه حاسوب تناسب الخدمات الرقمية المقدمة					
.5	تتواصل المنشاة مع افرادها رقميا					

البعد الثاني: بيئة العمل الرقمية:

وهي مكان العمل الذي يعتمد فيه الموظفون على جميع التسهيلات الرقمية التي يحتاجون اليها لإنجاز اعمالهم بنجاح.

الرقم	الفقرة	موافق بشدة	موافق	موافق الى حد ما	غير موافق	غير موافق بشدة
.6	تتعامل المنشاة مع الخدمات الرقمية بسلاسة					
.7	توفر المنشاة جميع وسائل التكنولوجيا التي تحتاجها لإتمام العمل					
.8	تقدم المنشاة اتصال ممتاز مع شبكه الانترنت					
.9	تقوم المنشاة بصيانه دوريه لأجهزتها التي تتعامل معها					
.10	توفر المنشاة جميع ادوات التقنيات الرقمية في بيئة العمل					

البعد الثالث: التمويل الرقمي:

وهو الخدمات المالية المقدمة من قبل مالك المنشاة لتوفير الخدمات الرقمية في المنشاة.

الرقم	الفقرة	موافق بشدة	موافق	موافق الى حد ما	غير موافق	غير موافق بشدة
.11	تخصص المنشاة نفقات خاصه للخدمات الرقمية					
.12	توفر المنشاة لجنه خاصه لمتابعه نفقات الخدمات الرقمية					
.13	تقدم المنشاة تقرير سنوي يقدر امكانيه استمراريه سياسه التمويل					
.14	تحدث المنشاة ميزانيه الخدمات الرقمية					
.15	تتعامل المنشاة مع نفقات الطوارئ الرقمية في حاله وجود خلل مالي					

البعد الرابع: القيادة الرقمية:

توحيد مجموعه من الطرائق والتقنيات لجلب المهارات والمعارف معا، من خلال تحفيز اعضاء المنظمة لتعزيز المعرفة ومشاركتها ضمن فريق او مجموعه لتطوير فهم اعمق، او نقلها من خارج المنظمة الى داخلها.

الرقم	الفقرة	موافق بشدة	موافق	موافق الى حد ما	غير موافق	غير موافق بشدة
.16	تقوم المنشاة بتوجيه الموظفين للاستخدام الامثل للتقنيات الرقمية					
.17	توفر المنشاة وسائل المعرفة للموظفين عند استخدام التقنية الرقمية					
.18	توفر المنشاة هويه رقميه خاصه لكل موظف					
.19	تستعين المنشاة بذوي الخبرة لتزويدها بالتقنيات الرقمية					
.20	تشارك المنشاة الموظف في عمل خطه القيادة الرقمية					

البعد الخامس: الثقافة الرقمية للمشاريع الصغيرة:

هي عمليه تأثير اجتماعي، عن طريق التّكنولوجيا، لإحداث تغيير في المواقف والمشاعر والتّفكير والسّلوك والتّعامل مع الافراد او الجماعات او المؤسّسات لتوجيههِم نحوَ تحقيق هدف محدّد.

الرقم	الفقرة	موافق بشدة	موافق	موافق الى حد ما	غير موافق	غير موافق بشدة
.21	تشجع المنشاة التواصل مع العملاء عن طريق التقنيات الرقمية					
.22	تعرف المنشاة الموظفين بالأدوات الرقمية المتاحة					
.23	تعتمد المنشاة على الادوات الرقمية في ممارسه مهامها الإدارية					
.24	تواكب المنشاة المستجدات الرقمية لتعزيز مهارات الموظفين					
.25	تستخدم المنشاة التقنيات الرقمية لتحقيق الاهداف					

الجزء الثالث: ابعاد المتغير التابع: الميزة التنافسية:

هي القدرة المكتسبة من خلال الموارد للقيام بالأعمال على مستوى اعلى من الشركات الاخرى في الصناعة او السوق نفسه.

البعد الاول: التكلفة:

وهي ثمن ما تتحمله المنشاة او الشركة من المواد واجور العمال والنفقات الاخرى في انتاج السلع والخدمات.

الرقم	الفقرة	موافق بشدة	موافق	موافق الى حد ما	غير موافق	غير موافق بشدة
.26	تلتزم المنشاة بالموازنة المخصصة لتغطيه تكلفه الخدمات الرقمية					
.27	تراقب المشاة عمليات صرف تكلفه الخدمات الرقمية					
.28	تحدد المنشاة تكلفه تدريب الموظفين على الخدمات الرقمية من اجمالي التكاليف					
.29	تقوم المنشاة بمسؤوليه تخطيط التكلفة					
.30	تشجع المشاة الموظفين على التحكم بالتكلفة من خلال عمليات التطوير المستمر					

البعد الثاني: الجودة:

وهي مجموعه الخصائص والسمات التي يجب توافرها في المنتج او الخدمة بحيث تجعل الموظف يقوم بوظيفته على اكمل وجه ويرضي المستهلك.

الرقم	الفقرة	موافق بشدة	موافق	موافق الى حد ما	غير موافق	غير موافق بشدة
.31	تنشر المنشاة ثقافه الخدمات الرقمية عالية الجودة التي تقدمها					
.32	تحسن المنشاة من جوده خدماتها بالاعتماد على التغذية الراجعة					
.33	تراقب المنشاة تطبيق معاير الجودة من خلال قسم خاص لهذا الغرض					
.34	تتابع المنشاة تطور مستويات الجودة من خلال نظام التقارير الدوري					
.35	تخصص المنشاة الدعم المادي لتحفيز اعلى معايير الجودة					

البعد الثالث: المرونة:

وهي قدره الموظف او المنظمة على التكيف مع الظروف والتحديات المتغيرة والجديدة التي قد تواجههما وربما تؤثر على تحقيق اهدافهما او خططهما المستقبلية.

الرقم	الفقرة	موافق بشدة	موافق	موافق الى حد ما	غير موافق	غير موافق بشدة
.36	تمتلك المنشاة المقدرة على التكيف في اعاده تخصيص استخدام مواردها					
.37	تمتلك المنشاة المقدرة على استخدام مواردها في مجالات مختلفة					
.38	تمتلك المنشاة المقدرة على استغلال جميع الفرص الموجودة في السوق					
.39	تمتلك المنشاة خطه استراتيجيه تهدف لمواكبه المستجدات في البيئة الخارجية					
.40	تستغل المنشاة عدد اكبر من الفرص السوقية مقارنه مع منافسيها					

Appendix (2)

Study Questionnaire in English

Dear Sir/Madam,

This questionnaire is designed to study The Impact of Digital Entrepreneurship in Achieving Competitive Advantage on Micro and Small Enterprises Operating in King Hussein Business Park. Your Enterprise has been selected for this study based on comprehensive survey. The study is purely academic and the data you provide will be used only for scientific research and will help in gaining a better understanding the real effect of digital entrepreneurship in achieving success. The questionnaire should be filled in by the: managers , owner and employs .

Of course, you are not required to identify yourself or your company and your response will be kept strictly confidential. Only the researcher will have access to the data you give and the completed questionnaire will not be made available to anyone other than the researcher. An executive summary of the research major findings can be sent to the participating enterprises.

Your kind cooperation in this research is very much appreciated and the researcher sincerely hopes that you will find the study of interest to you and hopefully to your Enterprise.

Thank you very much for your time and cooperation.

Yours sincerely,

Sibsa Jalal

0796226414

Part One: Personal and career information

Please tick (√) the appropriate answer in the box where applicable

1. **Sex:** ☐ Male ☐ Female

2. **Age:** ☐ Less than 30 years ☐ 30-40 years ☐ 40-50 years ☐ 50 years or more

3. **Qualifications:** ☐ Diploma ☐ Bachelor ☐ high degrees

4. **Experience** ☐ Less than 5 years ☐ 5-10 years ☐ 11-15 years ☐ 15 years or more

5. **Position** ☐ Owner ☐ Manager ☐ Employee

Part Two: Independent Variable: Digital Entrepreneurship:

Is the dynamic process of conceiving, developing, and managing ventures that primarily operate in the digital domain. This entrepreneurial paradigm harnesses the transformative power of digital technologies, the internet, and online platforms to identify and exploit innovative business opportunities.

First Dimension: Digital Knowledge:

It is a set of knowledge, experiences, and abilities to use digital devices and technologies efficiently and usefully in the work environment.

No.	Item	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
1.	The enterprise learns about the digital capabilities available					
2.	The enterprise raises awareness of its services using digital media					
3.	The enterprise receives training on the digital programs used					
4.	The enterprise uses computers that are appropriate for the digital services provided					
5.	The enterprise communicates with personnel digitally					

Second Dimension: Digital Business Environment It is the workplace where employees rely on all the digital fi they need to successfully complete their work.						
No.	**Item**	**Strongly agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
6.	The enterprise deals with digital services smoothly and knowledgeably					
7.	The enterprise has all the technology he needs to complete his work					
8.	The enterprise has an excellent connection to the Internet					
9.	The enterprise is provided with regular maintenance for the devices it deals with					
10.	The enterprise provides all digital technology tools in the work environment					
Third Dimension: Digital Finance It is the financial services provided by the enterprise owner to provide digital services in the enterprise.						
No.	**Item**	**Strongly agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
11.	The enterprise allocates special expenses for digital services					
12.	The enterprise provides a special committee to follow up on digital services expenses					
13.	The enterprise submits an annual report that estimates the possibility of continuing the financing policy					
14.	The enterprise updates the digital services budget					
15.	The enterprise handles digital emergency expenses in the event of a financial disruption					

Fourth Dimension: Digital Leadership:
Unifying a set of methods and techniques to bring skills and knowledge together, by motivating organizational members to enhance knowledge and share it within a team or group to develop a deeper understanding, or transfer it from outside the organization to inside it.

No.	Item	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
16.	The enterprise directs employees to make optimal use of digital technologies					
17.	The enterprise provides the means of knowledge to employees when using digital technology					
18.	The enterprise provides a private digital identity for each employee					
19.	The enterprise uses experienced people to provide it with digital technologies					
20.	The enterprise participates with the employee in creating a digital leadership plan					

Fifth Dimension: Digital entrepreneurial culture:
It is a process of social influence, through technology, to bring about a change in attitudes, feelings, thinking, behavior, and dealing with individuals, groups, or institutions to direct them towards achieving a specific goal.

No.	Item	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
21.	The enterprise encourages communication between employees to using digital technologies					
22.	The enterprise familiarizes employees with the digital tools available					
23.	The enterprise relies on digital tools to carry out its administrative tasks					
24.	The enterprise keeps pace with digital developments to enhance employees' skills					
25.	The enterprise uses digital technologies to achieve goals					

Part Three: Dependent Variables: Competitive Advantage:

It is the ability acquired through resources to do business at a higher level than other companies in the same industry or market.

First Dimension: Cost:

It is the price of what the enterprise or company bears in terms of materials, workers' wages, and other expenses in producing goods and services.

No.	Item	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
26.	The enterprise adheres to the budget allocated to cover the cost of digital services					
27.	The enterprise monitors the disbursement of the cost of digital services					
28.	The enterprise determines the cost of training employees on digital services from the total costs					
29.	The enterprise is responsible for cost planning					
30.	The enterprise encourages employees to control costs through continuous development processes					

Second Dimension: Quality:

It is a set of characteristics and attributes that must be present in the product or service to enable the employee to perform his job to the fullest extent and satisfy the consumer.

No.	Item	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
31.	The enterprise spreads a culture of the high-quality digital services it provides					
32.	The enterprise improves the quality of its services based on feedback					
33.	The enterprise monitors the application of quality standards through a special department for this purpose					
34.	The enterprise monitors the development of quality levels through a periodic reporting system					
35.	The enterprise allocates financial support to stimulate the highest quality standards					

Third Dimension: Flexibility:
It is the ability of an employee or organization to adapt to changing and new circumstances and challenges that they may face and that may affect the achievement of their goals or future plans.

No.	Item	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
36.	The enterprise has the ability to adapt and reallocate the use of its resources					
37.	The enterprise has the ability to use its resources in different areas					
38.	The enterprise has the ability to exploit all opportunities in the market					
39.	The enterprise has a strategic plan aimed at keeping pace with developments in the external environment					
40.	The enterprise exploits a greater number of market opportunities compared to its competitors					

Appendix (3)

Names of Academic Experts

Academic Experts	Tittle	University
Prof. Dr. Ali Al-Adaileh	Professor	Middle East University
Prof. Dr. Ahmad Ali Salih	Professor	Middle East University
Prof. Dr. Khaled Abu Al-Ghanam	Professor	Amman Arab University
Dr. Bilal Fadel Bazadogh	Associate Professor	King Saud University
Dr. Ahmad Marie	Assistant Professor	Middle East University
Dr. Samer Al- Jabali	Assistant Professor	Middle East University
Dr. Ahmad Ali Harasis	Assistant Professor	Middle East University
Dr. Saed Majed Al-Zeghan	Assistant Professor	Petra University
Dr. Sawsan Abdullah Al-Shaer	Assistant Professor	The World Islamic and Education University
Dr. Nehal Essa	Assistant Professor	King Saud University