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Assessing Entrepreneurship Practices at the Palestinian Higher Education Institutions

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Dedication

"براً وإحساناً"

To who loved me unconditionally and who has been a source of encouragement to go on every adventure, specially this one, my beloved mother Yousra Khatib.

To who was my strength in everything I do, who inspired it and will not read it, May his soul rest in peace, my father Mahmoud Tabib.

"وהל جزاء الإحسان إلا الإحسان"

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Sherin Tabib

الاقرار

أنا الموقعة أدناه، مقدّمة الرسالة التي تحمل العنوان:

Assessing Entrepreneurship Practices at the Palestinian Higher Education Institutions

أقر بأن ما اشتملت عليه هذه الأطروحة إنما هو نتاج جهدي الخاص، باستثناء ما تمت الإشارة إليه حيثما ورد. وأن هذه الرسالة كاملة، أو أي جزء منها لم يقدم من قبل لنيل أي درجة أو لقب علمي أو بحثي لدى أي مؤسسة تعليمية أو بحثية أخرى.

Declaration

The work provided in this thesis, unless otherwise referenced, is the researcher's own work, and has not been submitted elsewhere for any other degree or qualification.

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List of Abbreviations

COVID-19	Corona Virus Disease of 2019
EC	European Commission
EE	Entrepreneurship Education
ETF	European Training Foundation
EPs	Entrepreneurship Practices
EU	Entrepreneurial University
EU	European Union
GEM	Global Entrepreneurship Monitor
GII	Global Innovation Index
GEW	Global Entrepreneurship Week
HCIE	Higher Council for Innovation & Excellence
HEInnovate	Higher Education Institutions (to explore their innovative potential)
HEIs	Higher Education Institutions
I&E	Innovation and Entrepreneurship
ILO	International Labor Organization
INSEAD	originally an acronym for the French "Institut Européen d'Administration des Affaires" or European Institute of Business Administration
K-S	Kolmogorov-Smirnov
MSMEs	Micro, Small and Medium Enterprises
NaBIC	An-Najah Business Innovation and Partnership Center
OECD	Organization for Economic Co-operation and Development
PCBS	Palestinian Central Bureau of Statistic
PPU	Palestine Polytechnic University
QRD	Qualitative Research Design
SPSS	Statistical Package for the Social Sciences
TEA	Total Early-stage entrepreneurial Activity
UAE	United Arab Emirates
UT	University of Tehran
WIPO	World Intellectual Property Organization
WB	West Bank

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Abstract

Entrepreneurship has been widely recognised as being vital for economic growth through increased employment, productivity and innovation and improved social welfare. Higher educational institutions (HEIs) worldwide understand that teaching entrepreneurship is critical to their mission and their role in their communities. In Palestine, almost all HEIs have implemented several entrepreneurship initiatives to prepare their students for business ventures. The main aim of this study is to assess the entrepreneurial practices (EPs) in Palestinian HEIs. These EPs are assessed in terms of eight factors, including leadership and governance; organisational capacity, i.e. funding, people and incentives; entrepreneurial teaching and learning; preparing and supporting entrepreneurs; digital transformation and capability; knowledge exchange and collaboration; internationalisation and the impact of implementing entrepreneurial initiatives on the quality of education. To achieve this aim, an exploratory research was conducted. A mixed research approach was used to collect data. Semi-structured interviews were conducted with 14 entrepreneurship experts in the West Bank (WB). A questionnaire was developed, based on the European commission tool, HEInnovate, and given to 276 participants

who are involved in entrepreneurial activities, including students, staff and alumni, in six selected Palestinian universities.

The main finding was that, from the perspective of the target population, there is a high level of implementation of EPs in the universities. The EP that is most often implemented in the universities surveyed was leadership and governance and the most rarely implemented EP was organisational capacity. In addition, it was found that the key barriers to the implementation of EPs were the lack of sustainable funding for entrepreneurial projects, the absence of a national plan to organise entrepreneurial work in Palestine and the shortage of qualified staff and entrepreneurs in universities.

Chapter One

Introduction

1.1. Background

Recently, the global interest in entrepreneurship has been increasing (Byun et al., 2018; Eze & Nawali, 2012). Innovation and entrepreneurship (I&E) are widely recognised as being keys to economic growth and wellbeing (Miguel-Áge & María-Teresa, 2013; Römer-Paakkanen & Suonpää, 2017; Szabo & Herman, 2013). Therefore, entrepreneurship is vital to increase the rate of economic growth in both developed and developing countries (El-Gohary et al., 2016), especially in the era of the knowledge-based economy (Fernández-Nogueira et al., 2018; Gustomo & Ghina, 2017). Nations need entrepreneurship to help face the challenges of poverty and decrease the growing unemployment rates, particularly among graduates of institutions of higher education (Economist Articles, 2011; El-Gohary et al., 2016; Eze & Nawai, 2012). I&E have been defined by McKenzie et al. (2016) as being a set of advanced skills that have a broad application, from employment to creating adventure and beyond. Educational institutions, most especially universities, play a significant role in the knowledge-based economy (Salamzadeh et al., 2011). Therefore, higher educational institutions (HEIs) all over the world are embracing entrepreneurship as being critical to their mission and their role in their communities. Universities have a new mission, in addition to their two original missions, i.e. education and research, which is to be integrated with businesses and stakeholders (Fernández-Nogueira et al., 2018). Strielkowski (2020) argues

that a new generation of universities will emerge after the COVID-19 pandemic, a generation of online and digital universities.

HEIs realise the importance of enhancing the entrepreneurial skills of graduates to prepare learners for entrepreneurial careers and provide support for new start-up businesses (EC &OECD, 2012). Entrepreneurship programmes are incorporated in university programmes in both prestigious and minor universities (Al-Dajani et al., 2014). Entrepreneurial activities focus on local job growth and development by creating new companies (Guerrero et al., 2015). The performance of HEIs is assessed by how they respond to the social and economic needs of society (Taucean et al., 2018).

Several studies have been done to examine the teaching of entrepreneurship in universities in developed countries (Azanza et al., 2017; Hannon, 2013; Lilischkis et al., 2015; McKenzie et al., 2016; Paunescu, 2006; Römer-Paakkanen & Suonpää, 2017). However, few studies on entrepreneurship have been done in developing countries (Eze &Nwali, 2012, Farsi, et al., 2012; Gupta, 2008, Sart, 2014). It has been recommended that more research is needed in this field in the Arab world, to gain a deeper understanding of teaching practices of entrepreneurship in universities in these countries (El-Gohary et al., 2016).

Therefore, the purpose of this study is to assess the entrepreneurial practices (EPs) in Palestinian HEIs. This study will contribute to the body of knowledge on how to assess EPs to provide policymakers at HEIs with comprehensive outcomes for improving the quality of implementation of

EPs and to help them recognise the importance of developing a strategy for sustaining entrepreneurship.

1.2 Research Problem

Palestinian entrepreneurs play a pivotal role in advancing economic development (Judeh, 2016). Developing a diversified economy that encourages entrepreneurship and economic inclusion will reduce the current unemployment levels significantly (GEM, 2017). A report prepared by the European training foundation (ETF) regarding education and business in Palestine argues that ‘the Palestinians are the most educated population in the region’ (ETF, 2011, p. 3). According to the Palestinian Central Bureau of Statistics (PCBS), the rate of unemployment is high. They state that, ‘in the 1st quarter 2017 [unemployment] was 44.3% among youth aged 20–24 years’. The same source considers the Palestinian society to be a youthful society. Of the total population, 30% are in the age group 15–19 (PCBS, 2018). In addition, the rate of unemployment has increased dramatically worldwide since the start of the COVID-19 pandemic (Haeffele et al., 2020). Labor Organization (ILO) declares that after the pandemic, the number of unemployed people will have increased from 5.3 million to 24.7 million (Kawamorita et al., 2020).

Therefore, entrepreneurship is expected to reduce the unemployment rate and increase economic growth. Integrating teaching the culture of entrepreneurship into universities will help harness the energy and power of the minds of the unemployed youth. It will reduce the gap between the

aspirations of young people and the ability of the government to provide employment in government institutions for the large number of graduates (Ghina, 2013). Many universities have established technology centres that collaborate and network with international and local businesses to offer entrepreneurial activities. There were in year 2016 around 20 institutions acting as incubators, accelerators and centres of excellence in Palestine (Judeh, 2016).

Based on field research conducted in the WB, researchers argue that these activities are scattered and not conducted in a systematic manner (Judeh, 2016; Majumdar & Alhamami, 2013; Morrar, 2017; Sabri, 2008; Sultan, 2017). Palestinian universities cannot assess the impact of an entrepreneurship programme without an entrepreneurship development model (Sultan, 2017). Such a model will allow graduates to successfully enter the market by providing entrepreneurial skills that are associated with the actual needs of the local and regional labour market (Sultan, 2017).

Due to the lack of research related to the assessment of the level of the EPs in HEIs, this study is needed to guide Palestinian HEIs to develop these policies. It provides clear directions to help policymakers address the gap between the growing interest in entrepreneurial initiatives and the lack of guidance on how to promote EPs in the WB. In addition, it will enrich the literature relating to entrepreneurial education (EE) to help continuously improve higher education in the WB.

1.3 Research Questions

The main goal of this research is to assess the EPs of HEIs in the WB. While many aspects of the implementation of entrepreneurial training could be investigated, this study specifically tries to answer the following questions:

1. What practices have been implemented by Palestinian universities to promote entrepreneurship?
2. To what extent have HEIs in the WB implemented EPs?
3. What are the main barriers facing Palestinian universities when implementing EPs?
4. To what extent do implementing entrepreneurial initiatives impact the quality of education in Palestinian universities?

1.4 Research Objectives

This study aims to assess EPs in universities in the WB. The main objectives of this research are:

1. To explore the practices supporting the culture of entrepreneurship in higher education.
2. To assess the current implementation of EPs in Palestinian universities.
3. To identify the key barriers to implementing entrepreneurial activities.

4. To measure the impact of conducting entrepreneurial initiatives in Palestinian universities.

1.5 Research Significance

Many research studies have been done to examine EPs. However, only a few studies have been done in the Palestinian context. Therefore, this study contributes to the accumulated knowledge in the domain of entrepreneurship and develops the current body of knowledge in this field by assessing to what extent EPs are implemented in higher education in the WB. At the end of the research, there are some recommendations for future studies. This study opens up new research paths in improving the integration of entrepreneurial instruction in higher education.

1.6 Thesis Structure

This thesis is divided into six chapters. Chapter one introduces the research subject, outlines the research questions and objectives and presents the structure of the research. Chapter two contains a review of the literature concerning entrepreneurship in different contexts. The researcher reviewed various reports. Statistical data from the PCBS were used, in addition to data from local institutions such as the Palestine Economic Policy Research Institute (MAS). Chapter three explains how the data were collected and analysed to answer the research questions. Chapter four presents the results of the data analysis. Chapter five discusses the data and provides a managerial framework. Chapter six presents conclusions and recommendations for further research.

Chapter Two

Literature Review

2.1 Overview

This chapter provides a critical review of entrepreneurial studies, specifically in higher education. The aim is to understand the concepts of I&E, entrepreneurial university (EU) and EE. It then gives a brief explanation of the importance of EE and the barriers facing the implementation of entrepreneurship. The final section discusses previous studies on entrepreneurship and the current situation of entrepreneurship in Palestine.

2.2 Innovation and Entrepreneurship

Aljohani (2015) mentioned in his research that the definition of innovation, according to the New Oxford Dictionary of English (1998), is ‘Making changes to something established by introducing something new’ (p. 942). The same researcher argues that innovation has been identified as a tool of entrepreneurship. Skilbeck (2017) defined innovation as making an idea into a commercial reality, i.e. giving value to something by converting an idea into a concrete product or process. ‘Innovation comes from any idea that solves a problem better than it has been solved before’ (Basem, 2016). In general, innovation is further classified as either incremental innovation, which is characterised by gradual advancements to existing products, processes, services or technology, or radical innovation, which represents the creation of something wholly new and different that creates new

markets (Skilbeck, 2017). Eze & Nwali (2012) argued that entrepreneurship is the ability and willingness to search for opportunities and ideas to create and start an enterprise successfully, not just to seek out opportunities, but it also requires creating value by putting in sufficient mental and physical effort and time.

Another definition of entrepreneurship is the ability of an individual to turn ideas into action (European Commission [EC], 2008). This definition is meant to include creativity, innovation, risk-taking and the ability to plan and manage projects to achieve objectives

Lackéus (2015) wrote that in order to be an entrepreneur, one must have the ability to identify opportunities, act as a business developer, thrive in self-employment and boldly venture into creation and growth. According to the Merriam-Webster dictionary, an entrepreneur is ‘a person who starts a business and is willing to risk loss in order to make money’. Innovation is ‘the introduction of something new’ (Sart, 2014). In other words, the entrepreneur knows how to invest the potential resources to achieve exceptional performance in the best way possible (El-Gohary et al., 2016). Liguori & Winkler (2020) explained that entrepreneurs need a number of skills, such as alertness to opportunity, the ability to leverage resources, mitigate risks, solve problems creatively, convey a compelling vision, learn from failure, implement change build and use networks and adapt. They also need to have passion, optimism, persistence, tenacity, resilience and adaptability, and they should ideally exhibit guerrilla behaviour.

The concepts of innovation and entrepreneurship are closely connected (GEM, 2018). Innovation is the source of entrepreneurship and entrepreneurship allows innovation to flourish and realise its economic and social value (Zhao, 2005). Hannon (2013) argued that innovation is fostered by entrepreneurship. Economist Articles (2011) write that entrepreneurship is linked with innovation as a pathway to prosperity.

2.3 Entrepreneurial Education

According to the Consortium for EE (2008, as cited Raposo & Paco, 2011), EE is not just about teaching someone to run a business. It is also about encouraging creative thinking and promoting a strong sense of self-worth and empowerment, as illustrated by the ability to:

- recognise opportunities in one's life.
- pursue opportunities by generating new ideas and finding the necessary recourses.
- create and run a new company.
- think in a creative and critical manner.

Eze (2011) defined EE as a process of promoting a mindset of thinking creatively and innovatively to solve specific problems and improve systems where they are. Byun et al. (2018) presented many definitions of EE. They described it as a process of education and training that provides training in entrepreneurial behaviour and knowledge to encourage individuals to

create their own business. Another definition by the same source is teaching a person how to find the opportunity and organise resources to develop or build a business.

2.4 Entrepreneurial University

The EU is ‘a trend in the development and transformation of HEI’ (Taucean et al., 2018). Hannon (2013) argues that the concept of an EU is not new and has many definitions. However, Sultan (2017) argues that an EU has no universal definition because contexts, such as culture, country development level, resources, etc., differ from one country to another, but there are common characteristics. Klofsten et al. (2018) consider an EU to be a complex phenomenon that can fit different meanings depending on the academic context. Budyldina (2018) agrees that a formal definition of an EU is still missing. She argues that an EU needs to be an entrepreneurial organisation with members who are entrepreneurs and should follow an entrepreneurial pattern in its interactions. In addition, she divides entrepreneurial activity in two types, i.e. formal and informal. Another definitions of EU as a dynamic system that includes components as illustrated in Table 2.1. An EU also aims to mobilise all its resources, abilities and capabilities to fulfil its third mission (Salamzadeh et al., 2011).

Table 2.1: Definitions of an entrepreneurial university (Salamzadeh et al., 2011).

Special Inputs	Processes	Outputs
Resources, Culture, Rules and regulations, Structure, Mission, Entrepreneurial capabilities, and Expectations of the society, industry, government and market.	Teaching, Research, Managerial processes, Logistical processes, Commercialization, Selection, Funding and financial processes, Networking.	Entrepreneur human resources, Effective researches in line with the market needs, Innovations and inventions, Entrepreneurial networks, and Entrepreneurial centers.

OECD (2012) mentioned that it is difficult and controversial to find one definition of an entrepreneurship university. All attempts in the literature to define one specific definition have not reached a consensus. As a result, the OECD framework has been designed around seven domains to cover common features among entrepreneurial universities in general.

2.5 Business Incubators

A business incubator is an organisation designed to accelerate the growth and success of entrepreneurial companies using an array of business support resources and services. These could include physical space, capital, coaching, common services and networking connections (Shehada et al., 2020). There are many descriptions of business incubators, but all of them share the same meaning (Aldammagh et al., 2020). Incubators have become an essential part of the new entrepreneurial ecosystem (Hausberg & Korrech, 2020).

Bisharat et al. (2020) define business incubators as institutions that are interested in entrepreneurial firms and aim to foster their growth and success through many supportive resources and services, e.g. providing a workspace, funding, coaching, public services and communication interfaces. In Palestine, 40% of business incubators are affiliated with universities and are usually in campus buildings.

2.6 The Importance of Innovation and Entrepreneurship, Entrepreneurial Universities and Entrepreneurial Education

Entrepreneurship has the ability to drive creativity, innovation, competitiveness, employment and growth. Therefore, it is a top priority in national government policies (Römer-Paakkanen & Suonpää, 2017). In addition, global indices have been developed to rank the level of I&E, e.g. the global innovation index, which is the annual ranking of countries by their capacity for and success in innovation, commonly cited by corporate and government officials (Global innovation index, 2017). The global entrepreneurship monitor is the world's foremost study on entrepreneurship and is able to provide high-quality information, comprehensive reports and interesting stories, which greatly enhance the understanding of the entrepreneurial phenomenon (Global entrepreneurship monitor, 2018). The COVID-19 pandemic has shown how commercial and social entrepreneurs act as key drivers of disaster response and recovery. For example, in order to respond to and recover from this pandemic a set of entrepreneurial ideas and solutions will be needed (Haeffele et al., 2020).

‘The spreading of I&E is vital to achieve a world-class knowledge-based economy’ (European Commission, 2016). The EC states that I&E is very important, especially when competing in a globalised world economy. Similarly, Biolcheva (2017) argues that dynamic environments increase the competitiveness of companies and require innovation. In other words, I&E are necessary to create and cope with uncertainty and unpredictable circumstances. This need has become greater during the COVID-19 pandemic. The level of uncertainty is extremely high and both social and commercial entrepreneurs are considered to be harbingers of hope. For example, they have provided goods and services and tried to create and reconnect social networks during physical distancing (Haeffele et al., 2020). Increasingly, the research community is interested in spreading the culture of I&E to realise the benefit of these new trends, both in the short term and in the long term, at a local and an international level.

An assessment undertaken by the National Council for Graduate Entrepreneurship in the UK found that over 80% of the top 100 high-growth firms were founded and/or managed by university graduates. This underscores the importance of entrepreneurs, as the most notable entrepreneurs of these graduates are from non-business disciplines (Hannon, 2013). Effective EE will convert a new generation of graduates from job seekers to job creators (Yusoff et al., 2014).

University graduate entrepreneurs make a great contribution to the economy and EUs must find ways to compete and succeed, even although

the environment is changing very quickly (Gibb & Haskins, 2013). EUs are now recognised as a major driver for self-development and innovation (Kawamorita et al., 2020; Sperrer et al., 2016). Because entrepreneurship is vital times of crisis, EUs play an important role by providing the other players in the innovation ecosystem with diverse information, reliable reports and studies. They also provide governments with information on policy implications and give various industries effective plans to face the crisis (Kawamorita et al., 2020). In this context, Graham (2014) illustrated that governments across the world are considering technological innovation as a vehicle for raising entrepreneurs nationally and to universities as the incubators of this national resource. In addition, Ghina & Gustomo (2017) argue that creating an EU is vital for sustainable national economic growth. According to Klofsten (2018), entrepreneurship in HEIs means being involved in social change and economic growth. The good reputation of the university will attract well-educated people, and this will further contribute to creating new ventures.

2.7 Barriers to the Implementation of Entrepreneurial Practices in the Universities

The road to becoming an entrepreneur is not an easy one, on the contrary, the journey has many obstacles. The lack of academic paths for those pursuing entrepreneurship in HEIs and the mindsets of the individuals and the organisational values and culture the largest Barrier (Hannon, 2013).

Sperrer et al. (2016) revealed the shortcomings in idea creation, implementation of entrepreneurial spirit and the provision of EE in general. There has not yet been an exhaustive assessment of the impact of entrepreneurial teaching and learning activities in higher education. In addition, traditional lecture-based methods of instruction are not always successful in EE. This, paired with a lack of entrepreneurial experience among faculty members and limited available courses in entrepreneurship, means that this field is not yet well understood (Sperrer et al., 2016).

In researching the entrepreneurship 2020 action plan, the EC has found six challenges facing EE, namely overcoming reservations, assuring sustainable financing, measuring outcomes and impact, assuring the quality of the curriculum, assuring the quality of extracurricular activities and reinforcing the scope and strength of universities' networks with external entrepreneurs (EC, 2015). Policymakers should allow entrepreneurs the space to perform in the midst of crises by eliminating regulations that stand in the way of entrepreneurial work and avoiding confusing policies (Haeffele et al., 2020). In the COVID-19 crisis, EUs have faced two types of barriers. Internal barriers are formed by their lack of readiness to meet the challenges. External barriers are shaped by the pressure that is applied by the government, industry and society, e.g. the difficulties that the government and industry have in reaching their databases and academic records. Also, there was a great deal of societal pressure to provide positive solutions to resolve routine and complicated problems (Kawamorita et al., 2020).

2.8 Frameworks of Entrepreneurial Universities in Previous Studies

The EC and the OECD cooperated to create a guiding framework, called HEInnovate, for EUs in Europe. This framework was designed as a self-assessment tool to help universities assess their current situation and identify potential action areas. The framework focuses on seven key dimensions identified by leading experts through a review of existing literature. For each of the given statements, a university can score itself on a scale of zero to ten using the guiding framework, materials and the HEInnovate online tool¹ to identify priorities and work on improvement areas. The seven keys areas are:

1. Leadership and Governance

The first dimension explores the factors that enhance positive leadership and governance in HEIs. The key objective is to highlight the important factors that HEIs can use to strengthen the entrepreneurial agenda.

2. Organisational Capacity, i.e. Funding, People and Incentives

The second dimension focuses on eradicating the structural and procedural obstacles that limit the ability of HEIs to conduct entrepreneurial activities designed to support their strategic goals.

¹ (<https://heinnovate.eu/>)

3. Entrepreneurial Development in Teaching and Learning

The third dimension highlights the contexts or areas where HEIs should focus their entrepreneurial development activities. In particular, the objective is to highlight how organisational structure can support entrepreneurial development. At the same time, this dimension highlights the optimal tools for delivering educational and training opportunities in the internal and the external environment.

4. Preparing and Supporting Entrepreneurs

HEIs must support all pathways that potential entrepreneurs take when transforming their innovative business ideas into viable commercial ventures.

5. Digital Transformation and Capacity

This section highlights the areas in which HEIs can strengthen their ability to maximise opportunities generated by digital technologies. In particular, this section emphasises the creation of a clear vision and organisational culture based on digital learning.

6. Knowledge Exchange and Collaboration

This dimension emphasises the need for the involvement and engagement of all stakeholders linked to the entrepreneurial HEIs. Collaboration is viewed as a strategy for building long-lasting bonds that can help the students and HEIs achieve their full potential.

7. The Internationalised Institution

Formulating and enacting an international viewpoint at all levels of EE is a key characteristic of the entrepreneurial HEIs. This section highlights how HEIs can integrate internationalisation into their strategic processes to fit the global environment (EC, 2015).

A framework developed by Ghina, et al. (2015) covers three key stakeholders within a university, the student, the lecturer and the institution. Each of these stakeholders has their own roles and responsibilities related to the three core activities, teaching, research and third-stream activities, which are the interactions between universities and the rest of society. They suggested conduct mapping and evaluation of frameworks to gain a better understanding of the effectiveness of learning and institutional support. However, the model does not divide the assurance of learning for all core missions evenly, so further exploration would be required to complete the framework (Gustomo & Ghina, 2017). Table 2.2 summarises some of the recent studies of universities and entrepreneurship.

Table 2.2 Summary of studies of universities and entrepreneurship

No.	Author (year)	Main Findings
1	Al Shobaki et al. (2018)	there is a high level of promotion of entrepreneurship (risk, preparedness, proactive competition, innovation orientation) in the technical colleges in Gaza Strip
2	Schmitz et al. (2017)	Despite the increasing literature, it is still fragmented and undertheorized, requiring more systematic and holistic studies, considering both the economic and the social aspects of innovation and entrepreneurship within universities
3	Sultan (2017)	Entrepreneurship and entrepreneurial activities are not new for Palestinian universities. The key imperatives to strive for greater enterprise and entrepreneurship are the need for financial sustainability, student employability and effective teaching practices that reflect the world of work. There is one weakness in the overall strategy, which is that it does not address any financial issues.
4	Salameh and Khoury (2016)	There are multiple intentions that encourage women to start and run their own businesses in Palestine. However, these intentions vary in terms of their importance. The top five intentions are the psychological motivation, the need to generate income and job security, independence, freedom, and being own boss, contributing something to society, and the desire to work
5	Sperrer et al. (2016)	Results show strong similarities in the answers relating to the HEInnovate framework. One of the few differences appeared in the first segment, which asks whether entrepreneurship is a major part of the university strategy. And, regarding their commitment to implementing the model of the entrepreneurial university, both universities give themselves a high ranking. Concerning faculty autonomy, both universities placed themselves in the lower half of the scale. Here, the university representatives see room for improvement.
6	El-Gohary et al. (2016)	This research presents concise and pragmatic guidance that will assist HE institutions. There is a need to conduct more research to investigate this impact in an Arab and/or developing countries context
7	Rudhumbu and Svotwa (2016)	Most students have a positive attitude towards entrepreneurship education and would prefer to be entrepreneurs at the end of their studies. Entrepreneurship education and entrepreneurship as a career include difficulty in accessing funding, lack of technical support at start-up, and inadequate business opportunities in Botswana.
8	Mikkonen (2015)	The results indicate that the External E&I community had been used significantly less than the other parts of the ecosystem, in which the rest had had quite even distribution of usage
9	Ghina (2013)	This study generates and develops of concepts, categories and propositions, and verified through systematic data coaction and analysis of data pertaining to that phenomenon.

10	Zhou, and Xu (2012)	China's entrepreneurship education is still in the early stage, and China lags behind the average standard of Global Entrepreneurship Monitor (GEM) in entrepreneurship education
11	Mason (2011)	the emerging trends and challenges in entrepreneurship run parallel in the countries analyzed: all the countries place high priority on entrepreneurship as an engine of growth and thus pursue policies deemed to promote entrepreneurial activities especially through education and training
12	Venesaar et al. (2011)	shows how cognitively adaptable are the students participating in the training course
13	Guerrero et al. (2006)	Models of Entrepreneurial Universities are developed to analyze formal and informal factors. The majority is concentrated on the formal one in the empirical studies, the evidence reveals the use of case studies methodology where are described and concentrated issues related with entrepreneurial activities, entrepreneurial vision, transformation process, strategies, structural changes and others
14	Moberg (2021).	The online programme did not, however, significantly influence the participants' self-efficacy concerning enterprising competences
15	Manea et. al (2019)	The entrepreneurship career and their decision is positively influenced by family and friends setting and education.

As shown in Table 2.2, in recent years, many researchers have conducted practical studies in the field of entrepreneurship in universities in developed countries. According to Mikkonen (2015), the research field in entrepreneurship has two sides. The first looks at the individual, and the second studies entrepreneurial activities within the economic system. Studies on entrepreneurship in developed countries investigate the component of EE in depth. Mikkonen's (2015) study, which was conducted in Finland, discussed the types of entrepreneurial opportunities. Budyldina (2018) divided entrepreneurial universities to three categories, namely a potentially entrepreneurial university, an adaptive entrepreneurial university and an ideal entrepreneurial university. She concluded that these categories might not apply in other countries, particularly in those with a low level of industrial advancement where ties between universities and

industrial companies are weaker. Therefore, a comparative study between midrange universities in less innovation-intensive countries might open prospects for future research.

Al Shobaki et al. (2018) used the analytical descriptive method in their study to identify the level of promotion of entrepreneurship in technical colleges in Palestine. They found that there is a high level of promotion of entrepreneurship (risk, preparedness, proactive competition and innovation orientation) in the technical colleges in Gaza Strip. While they recommended conducting further studies that deal with the same variables in the field of entrepreneurship that can be applied to other sectors. Salameh & Khoury (2016) conducted a study to identify and explore the intention of female entrepreneurs in Palestine to start and run their own businesses. This study focused on entrepreneur's women even if they are not within the academic community. They used a selective sample of female entrepreneurs and collected data using semi-structured interviews. They found five psychological motivations, which are the need to generate income and job security, the need for independence, the need for freedom, the desire to be one's own boss, the need to contribute to society and the desire to work. However, they also revealed the barriers facing women, such as a lack of government support, marketing, competition and raw materials. Salameh & Khoury (2016) recommended that government and society should promote women's businesses.

2.9 Entrepreneurship Ecosystem in Palestinian Universities

As mentioned before, Palestine has a young population (PCBS, 2018). The ILO (2018) supported the PCBS's conclusion that in 2016, 35% of the total working-age population are youth aged 15–24. Also, '[t]he highest unemployment rate in the 1st quarter of 2017 was 44.3% among youth aged 20–24 years' (PCBS, 2018). EC (2017) argued that the unemployment rate among recently graduated students exceeds 75%, while less than a third of Palestinian youth participate in the labour market. In 2016, 32.3% of youth were not employed, nor were they in education or training. The ILO (2018) considers this high percentage of idle youth to be a threat to the future employability and productivity of the Palestinian workforce, which could negatively affect growth and development prospects. At the same time as this high unemployment rate is occurring, there is a high rate of advancement in education (Sabri, 2008). The World Bank (2020) predicted that, after the corona pandemic, the percentage of households that live below the poverty line will rise to 30% in the WB and to 64% in Gaza, and that the Palestinian economy in general could shrink by 11%.

Palestine, as with any occupied land, has to invest in human development instead of in land resources, where there is no complete control over these resources (Nicolai, 2007). Therefore, for the reasons mentioned above, there are efforts and initiatives at the national and private sector levels to encourage and support entrepreneurship in Palestine.

At the national level, there is an interest in entrepreneurship, which is represented by the establishment of the higher council for innovation and excellence (HCIE) and the ministry of entrepreneurship and empowerment.

The HCIE was established in 2014, by the president of the State of Palestine (Judeh, 2016). Its vision, to shape a Palestinian community enriched with innovation, distinct performance, in all aspects of life. As a mission, it wants to play a leading role towards consolidating a culture of innovation and excellence among the Palestinian community and very fair and just empowerment of all those innovators and creative people, and towards strengthening the structure of the creativity system in various sectors so that creativity becomes the mainstay of the economy and the acknowledgment society in which we seek. Its strategic goals are:

1. Setting up a code that includes values, directives, and standards, functioning and stimulating creativity and excellence.
2. Embracing the creative people and providing care and support to them in various forms.
3. Working with the Ministries of Education and Higher Education to develop policies, regulations and stimulating and supportive programs for innovation and excellence, especially at the level of primary education and higher education.
4. Strengthening the structure of innovation system in the various sectors through:

5. Supporting institutions that work in the field of innovation and excellence, the strengthening of institutional capacities and stimulating the coordination and concerted efforts and the integration of their roles, in order to maximize the collective impact, and putting an end to the duplication and fragmentation of efforts.
6. Encouraging private sector in Palestine and in the Diaspora on increasing its investment in the field of innovation and creativity, stimulating the issue of establishing multi-party partnerships including the public sector, private sector and the national sector, universities and institutions concerned, so as to form an organizational structure or framework that stimulates and enhances innovation, and facilitates the realization of economic and developmental outcomes.
7. Building up information systems, knowledge resources, and providing information services that are supportive to the individuals and public corporations working in the innovation field.
8. Providing a legal, stimulating and supportive environment for innovation and creativity.
9. Cooperating with the concerned parties in preparing drafts of legislations relating to innovation and excellence.
10. Adequate and effective representation of Palestine within the regional and international systems of creation and innovation; facilitating thereby the use of all available networking opportunities, and transfer and

domestication of adequate technological and cognitive creations and innovations.

11. Building up effective communication channels with the Palestinian competencies in the Diaspora, creating innovative methods and programs to facilitate and stimulate the use of their various resources in the fields of excellence and innovation.
12. Working with related establishments in determining the national priorities in the field of innovation and excellence.²

The HCIE providing six main services to support entrepreneurship in Palestinian community, seed supporting for the entrepreneurial projects and start-ups, international posts, networking, incubation, and contests awards. The HCIE has national, regional, and international partners to support the entrepreneurship and start-ups, like the Arab Innovation Network (AIN), Arab Council for the Gifted and Talented (ACGT), Global Entrepreneurship Week (GEW), and ANIMA Investment Network.

Recently, the HCIE conducted initiatives to support entrepreneurship in the HEI's in Palestine. For example, the HCIE signed incubation agreements for four innovative projects for students from the universities of Al-Quds, Birzeit and An-Najah. The HCIE and the Al-Nayzak Foundation supported the Palestinian inventor, to achieve first place in the foreign inventor category for his invention in the first session of the Mediterranean inventors' salon, organised in Tunis 18–20 February 2020. On 19 October

² https://hcie.ps/?page_id=492&lang=en

2020, the HCIE organised the fifth national forum, under the title ‘Innovation and the Pandemic’, under the auspices of the President of State, who also attended the event.

Also, at the national level, the current government created a Ministry of Entrepreneurship and Empowerment in April 2019. The ministry aims to create an incubator for creators and a refuge for those aspiring to a better future. According to the Ministry of Education and Higher Education (2017), the fourth target of the fourth goal in the educational sector strategic plan 2017–2020 is, ‘By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent work and entrepreneurship.’ In particular, the corona pandemic has increased the need for entrepreneurship in universities. Palestinian consultative staff for NGO development developed the Palestinian business incubators entrepreneurship index, second edition; on 25 June 2020 (the first was developed on 12-11-2019). This index was developed to cover a part of the shortage of information about entrepreneurship in Palestine.

Several initiatives have been conducted by the private sector and civil society, e.g. Fast Forward, Palestine’s first start-up accelerator, which was founded in 2013 (Leaders Organization, 2017) and Start-up Palestine, started in cooperation with the Italian agency for development cooperation (OECD, 2018). In addition, many initiatives have been implemented by

NGOs, such as IBTIKAR³ for empowerment and social entrepreneurship and the Arab innovation network for fostering innovation in the Arab world. Other entrepreneurship centres and incubators in Palestine are Arabreneur (WB), Business and technology incubator (Gaza), Business women's forum's (BWF's) business development centre (WB), Gaza sky geeks (Gaza), Leaders Organization fast forward (WB), Mobaderoon (Gaza), Palestinian ICT incubator, PICTI, (WB and Gaza) and UCAS technology incubator (Gaza).

In recent years, several entrepreneurial initiatives have been started by HEIs in Palestine. The universities established business incubators and started to teach I&E courses. Four years ago, four out of six universities established business incubators, while two of six universities established business incubators ten years ago. Additionally, universities started teaching I&E courses nearly four years ago.

Other initiatives include excellence centres and information technology incubators at Palestinian universities, e.g. the Palestine techno park at Birzeit University, established in 2016, and An-Najah business innovation and partnership centre (NaBIC), established in 2014, offering new courses in I&E. These centres organise workshops and conferences on entrepreneurship and invite experts to speak. Sometimes the universities participate in conferences on entrepreneurship, and other times they hold conferences. For example, a conference entitled 'Entrepreneurship in

³ <http://Ibtikarfund.com/>

Occupied Palestine: Policies and Prospects' was held on Birzeit University's campus on 11 April 2018. The conference was organised by the Faculty of business and economics and the B-Hub at Birzeit University and was sponsored by the EC and the Bank of Palestine. In addition, Palestine started participating in global entrepreneurship week, 14–20 November 2016, which is a celebration of innovation, entrepreneurship, and creativity. In 2019, another conference, the International conference on entrepreneurship, was held in Palestine, in the Conference Palace in Bethlehem.

The few studies about Palestine that do exist (Judeh, 2016; Morrar, 2017; Sabri, 2008), focus on innovation and entrepreneurship in occupied Palestine. This lack of research in the field helped to identify the research problem and develop the research questions.

Chapter Three

Methodology

3.1 Overview

This chapter describes the process of collecting and analysing the data to answer the research questions. In addition, it highlights the reason for using the mixed approach and why qualitative and quantitative methods were used. Finally, it discusses the validity and reliability of the research. It also explains some changes and barriers along the way and the limitations of the research.

3.2 Research Design and Strategy

The main aim of this research is to explore the extent to which Palestinian HEIs have implemented EPs. Therefore, an exploratory sequential mixed method research design was used. This is the first step to increase the understanding of the nature of the phenomenon, as case study research is appropriate for studying a phenomenon in depth (Yin, 2003). This illustrates why so many studies on this topic use the case study approach to increase understanding of the phenomenon. However, there is no university in Palestine currently leading in entrepreneurial programmes that make it viable to study as a representative case. Therefore, the researcher adopted the mixed methods approach. The combination of quantitative and qualitative methods strengthens this research and provides a rich description of EPs to address the research problem and answer the research questions. According to Creswell & Creswell (2018), three important

points should be determined in the mixed methods approach. These are the sequence of data collection, the method of analysing the data and at what point in the study the researcher mixes the data.

3.3 Research Population and Sample Size

The target population of this study was the staff or academics, students and alumni who were participating in entrepreneurial activities in Palestinian HEIs in the academic year 2019/2020. There are no official reports revealing the population size. The participants were reached by consulting the managers of business incubators and innovation and entrepreneurship units at the universities. The criteria used for selecting them were that they needed to have participated at least once in EPs at the university.

The sample was divided into three groups according to geographical area, i.e. northern WB, central WB and southern WB. Two universities were chosen in each area in a simple random manner. Therefore, six universities were selected in these three areas. These universities were used as initial inspection units (primary sampling units) in the first stage of the sample selection process. In addition, universities were grouped based on ownership, government or private. The second stage was randomly selecting a sample of students, staff and graduates from each of these universities.

According to the targeted universities, the total population was 5340. To acquire a statistically representative sample size from this population, the researcher used the following simple formula, as advanced by Kapoor (2010).

$$n = n^{\circ} \div \left(1 + \frac{(n^{\circ} - 1)}{N}\right) \dots \dots \dots (1)$$

Where

n = correction for limited population

N = population

n° = sample size, which is calculated by following equation

$$n^{\circ} = \frac{z^2 p(1 - p)}{e^2} \dots \dots \dots (2)$$

Whereas:

z : Confidence level 95% = 1.96

p : Indicator ratio = 50% to obtain the highest sample size

e : Percentage of error allowed = 5.5 %

$z = 1.96$, $p = 0.5$, $e = 0.055$ and by applying the equation (1)

$$n^{\circ} = 1.962 * 0.5 * (1 - 0.5) / 0.0552$$

$$n^{\circ} = 0.9604 / 0.003 = 317.488$$

Then applying the equation (1)

$$n = 317 / (1 + ((317 - 1) / 5340)) = 300$$

Based on this computation, this research needed 300 participants to carry out the survey. More than 400 electronic questionnaires were distributed among staff and academics, students and alumni of these universities. The number of valid questionnaires returned was 276, which is a 92% response rate.

3.4 Data Collection

The researcher used a combination of primary and secondary data to enrich this study. The secondary data included a literature review of books, websites, PCBS publications and both international and local journals.

3.4.1 Primary Data

The collection of primary data was done in two stages. The first was semi-structured interviews with experts to collect in-depth data and the second was the questionnaire.

3.4.1.1 Semi-Structured Interviews

Interviews are the most common way to collect primary data in the qualitative research method (Yin, 2003). Primary data is collected in qualitative methods through in depth, semi-structured interviews using open-ended questions, with different stakeholders, including policymakers

and faculty. The main questions in the interview were: What is the current situation regarding EPs? What are the barriers faced during the implementation of EPs in Palestinian universities? What is the impact on entrepreneurial attitudes and intentions of implementing EPs in universities? The final version of the interview questions is shown in Appendix A. Patterns and variations in the experiences, perspectives and interpretations of the participants were identified. The primary qualitative data were collected between 2 and 12 December 2019 through face-to-face, semi-structured interviews with 14 experts who have good knowledge and experience in the field of entrepreneurship. The interviews were conducted in Arabic and took 35–55 minutes. Interviews were recorded using a voice recorder, after getting the permission of the interviewees, for further review and analysis.

3.4.1.1.1 Semi-Structured Interview Validity

Content validity was ensured in this research through discussion with supervisors and five experts in entrepreneurship, who gave their judgment on the interview questions and the questionnaire.

3.4.1.1.2 Semi-Structured Interview Analysis

The qualitative data collected through the interviews were analysed using the thematic analysis approach, which allows the researcher to easily sort large datasets into broad themes. The analysis was conducted step by step, based on the steps suggested by Braun & Clarke (2006).

Familiarization: Start by transcribing the audio. Next, read the text, take initial notes and then read again to become familiar with the contents.

Coding: Highlight phrases or sentences and describe their content by using labels or codes.

Generating themes: These are broader than codes and are generated by looking at the codes and deciding which codes can be combined into one theme and which can be discarded as not being relevant enough.

Reviewing themes: Make sure there is no missing data.

Defining and naming themes: Name and define each theme and describe how it helps to understand the data.

Writing up: Write the analysis of the data.

Therefore, codes are generated, and similar codes are grouped into topics. Similar topics are then placed into themes. Finally, these themes are explained.

3.4.1.2 Questionnaire Design

Quantitative data was collected using online questionnaires. The questionnaire was based on the EC and OECD framework, HEInnovate, to assess entrepreneurship in universities in the European Union countries (EC & OECD, 2012). This questionnaire was adjusted and related to the Palestinian context by adding a new dimension, the impact on the quality of education of implementing entrepreneurial initiatives, besides

rephrasing several items of HEInnovate, then translated from English into Arabic, the home language of the respondents. The questionnaire was prepared as an assessment tool to answer the research questions, i.e. what practices have been adopted by Palestinian universities to promote innovation and entrepreneurship? and to what extent are HEIs implementing EPs? For this purpose, the questionnaire was divided into three major sections. Section one was designed to gather general information. Section two (33 items) was designed to gather information about the participants' perspectives on eight dimensions, namely leadership and governance; organisational capacity, i.e. funding, people and incentives; entrepreneurial teaching and learning; preparing and supporting entrepreneurs; digital transformation and capability; knowledge exchange and collaboration; the internationalised institution and the impact on the quality of education of implementing entrepreneurial initiatives. Each dimension contains two to five closed questions. The items are measured with a five-point Likert scale ranging from one to five (1 = Not at all, 2 = to a slight degree, 3 = to a moderate extent, 4 = to a great extent, 5 = to a very great extent). Section three of the questionnaire is an open question to record any notes or comments. The final version of the questionnaire is shown in Appendix B, and the Arabic version is shown in Appendix C. The Arabic version is designed as an electronic questionnaire in Google documents.

3.4.1.2.1 Questionnaire Validity

The validity of a tool is defined as the measure of its usefulness as an indicator of what it is designed to show (Saunders et al., 2009). The questionnaire was reviewed by six experts (Appendix F) to ensure the content validity. It was then tested on a sample of the population to ensure internal and structural validity and reliability.

The validity of the tool was examined on all questions relating to, ‘To what extent your university is implementing the practices’. In this case, all indicators were designed to examine the extent to which the university is implementing the EPs. This is done by finding the average of all indicators for the eight dimensions on the form, and then finding the correlation of each indicator with the total average. The form was examined, and it was found that all the questions had very good credibility (Creswell, 2018). The value of sig for correlations is significant, with a value less than type-one error ($\alpha = 0.05$), as shown in Table 3.1 and the clarification of the indicators in Appendix E Table E.4. Therefore, the data being measured are consistent and valid.

Table 3.1: Validity Statistics

Dimensions	Items	Pearson Correlation	Sig. (2-tailed)
Leadership and Governance (L)	L1	.645**	0.000
	L2	.740**	0.000
	L3	.790**	0.000
Organizational Capacity: Funding, People and Incentives (O)	O1	.747**	0.000
	O2	.753**	0.000
	O3	.632**	0.000
Entrepreneurial Teaching and Learning (E)	E1	.781**	0.000
	E 2	.751**	0.000
	E 3	.731**	0.000
	E 4	.733**	0.000
Preparing and Supporting Entrepreneurs (P)	P1	.763**	0.000
	P2	.789**	0.000
	P3	.706**	0.000
	P4	.771**	0.000
	P5	.682**	0.000
	P6	.736**	0.000
Digital Transformation and Capability (D)	D1	.791**	0.000
	D2	.744**	0.000
	D3	.741**	0.000
	D4	.735**	0.000
Knowledge Exchange and Collaboration (K)	K1	.772**	0.000
	K2	.705**	0.000
	K3	.696**	0.000
The Internationalized Institution (II1)	II1	.672**	0.000
	II2	.649**	0.000
	II3	.739**	0.000
The Impact of Implementing Entrepreneurial initiatives on the Quality of Education (I)	I1	.768**	0.000
	I2	.730**	0.000
	I3	.799**	0.000
	I4	.737**	0.000
	I5	.783**	0.000
	I6	.757**	0.000
	I7	.742**	0.000
	I8	.768**	0.000

3.4.1.2.2 Questionnaire Reliability

Reliability analysis refers to the fact that a scale should consistently reflect the construct it is measuring. Cronbach's alpha is in the range 0–1, and the higher the number, the more statistically significant the relationship between the items in the group. Any alpha greater than 0.70 is

suitable to create a group of the items. More specifically, alpha above 0.9 is excellent, 0.7–0.9 is good, 0.6–0.7 is acceptable, 0.5–0.6 is poor and <0.5 is unacceptable (Cortina, 1993).

In Table 3.2, it can be seen that the Cronbach's alpha value for the overall average is 0.973, which means that if this questionnaire was repeated, 97.3% of the answers on the EPs at Palestinian HEIs would be the same. The Cronbach's alpha value for the dimensions varies between 0.806 and 0.941. Therefore, those answers are considered to be consistent.

Table 3.2: Reliability Statistics

Dimensions	Cronbach's Alpha	N of Items
1. Leadership and Governance (L)	0.884	3
2. Organizational Capacity: Funding, People and Incentives (O)	0.806	3
3. Entrepreneurial Teaching and Learning (E)	0.893	4
4. Preparing and Supporting Entrepreneurs (P)	0.909	6
5. Digital Transformation and Capability (D)	0.893	4
6. Knowledge Exchange and Collaboration (K)	0.809	3
7. The Internationalized Institution (II)	0.833	3
8. The Impact of Implementing Entrepreneurial initiatives on the Quality of Education (I)	0.941	7

3.4.1.2.3 Normality Test

In statistics, normality tests are used to determine if a dataset is well-modelled by a normal distribution and to compute how likely it is for a random variable underlying the dataset to be normally distributed (McDonald, 2014).

This study used a one-sample Kolmogorov–Smirnov (K–S) test as test of normality for each category. The K–S test is used to test whether a sample comes from a specific distribution. We can use this procedure to determine whether a sample comes from a population that is normally distributed

The null hypothesis indicates that the distribution is normal, as the sig is more than 0.05, while the alternative hypothesis indicates that the distribution is not normal, as the sig is less than 0.05.

Table 3.3: One-sample Kolmogorov–Smirnov test.

Dimensions	Male	female	A University	E University	F University	B University	D University	C University	Staff	Student	Alumni
1. Leadership and Governance (L)	.000	.000	.000	.000	.000	.008	.000	.000	.000	.000	.000
2. Organizational Capacity: Funding, People and Incentives (O)	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000	.000
3. Entrepreneurial Teaching and Learning (E)	.000	.000	.000	.000	.032	.000	.000	.000	.000	.000	.000
4. Preparing and Supporting Entrepreneurs (P)	.000	.000	.000	.000	.057	.016	.000	.000	.000	.000	.000
5. Digital Transformation and Capability (D)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
6. Knowledge Exchange and Collaboration (K)	.000	.000	.000	.000	.000	.002	.000	.000	.000	.000	.000
7. The Internationalized Institution (II)	.000	.000	.000	.000	.005	.000	.000	.000	.000	.000	.000
8. The Impact of Implementing Entrepreneurial initiatives on the Quality of Education (I)	.000	.000	.000	.000	.000	.017	.002	.000	.000	.000	.000
Total	.000	.000	.000	.000	.002	.007	.000	.000	.000	.000	.000

Table 3.3 indicates that none of the categories of gender, university and position are normally distributed, as sig is less than 0.05. This supports the alternative hypothesis. Therefore, we cannot use the t-test (two category) or ANOVA (more than two categories) as the parametric test. We used the Mann–Weitny and Kruskal–Wallis tests as non-parametric tests (McDonald, 2014).

Table 3.4 indicates that none of the categories are normally distributed, as sig is less than 0.05, which supports the alternative hypothesis. Therefore, we cannot use ANOVA (more than two categories) as the parametric test, and we will use the Kruskal–Wallis Test as a non-parametric test for the regional test of difference.

Table 3.4: One-sample Kolmogorov–Smirnov test (region)

Dimensions	p-value North	p- value Middle	p-value South
1. Leadership and Governance (L)	0.000	0.000	0.000
2. Organizational Capacity: Funding, People and Incentives (O)	0.000	0.000	0.000
3. Entrepreneurial Teaching and Learning (E)	0.000	0.000	0.000
4. Preparing and Supporting Entrepreneurs (P)	0.000	0.000	0.000
5. Digital Transformation and Capability (D)	0.000	0.000	0.000
6. Knowledge Exchange and Collaboration (K)	0.000	0.000	0.000
7. The Internationalized Institution (II)	0.000	0.000	0.000
8. The Impact of Implementing Entrepreneurial initiatives on the Quality of Education (I)	0.000	0.000	0.000
Total	0.000	0.000	0.000

The Kruskal–Wallis test by ranks, Kruskal–Wallis H test (named after William Kruskal and W. Allen Wallis), or one-way ANOVA on ranks is a non-parametric method for testing whether samples originating from the same distribution. It is used for comparing two or more independent

samples of equal or different sample sizes. It extends the Mann–Whitney U test, which is used for comparing only two groups. In Statistics, the Mann–Whitney U test (also called the Mann–Whitney–Wilcoxon (MWW), Wilcoxon rank-sum test, or Wilcoxon–Mann–Whitney test) is a nonparametric test of the null hypothesis that it is equally likely that a randomly selected value from one population will be less than or greater than a randomly selected value from a second population.

The parametric equivalent of the Kruskal–Wallis test is a one-way analysis of variance (ANOVA) (Siegel and Castellan, 1988, McDonald, 2014)).

3.4.1.2.4 Homogeneity Analysis

Homogeneity of variance is an assumption underlying both t-tests and F-tests (ANOVAs) in which the population variances, i.e. the distribution or spread of scores around the mean, of two or more samples are assumed to be equal. Levene’s test of homogeneity (Levene, 1960) is used to test if k samples have equal variances. Equal variances across samples are called homogeneity of variance. Some statistical tests, e.g. the analysis of variance, assumes that variances are equal across groups or samples. The Levene test can be used to verify that assumption.

The Levene test is defined as:

$H_0: \sigma_{21} = \sigma_{22} = \dots = \sigma_{2k}$, k represents the number of groups

$H_a: \sigma_{2i} \neq \sigma_{2j}$ for at least one pair (i, j) and $i \neq j$.

Table 3.5 shows that using the Levene test for homogeneity indicates that only two dimensions are homogenous according to gender categories. These are the dimensions of preparing and supporting entrepreneurs and the internationalised institution. The sig level is more than 0.05 and this supports the null hypothesis of equal variances.

Table 3.5: Homogeneity analysis of variances for the indicators by gender.

Dimensions	Levene's Test for Equality of Variances	Sig.
1. Leadership and Governance (L)	36.915	0.000
2. Organizational Capacity: Funding, People and Incentives (O)	6.248	0.012
3. Entrepreneurial Teaching and Learning (E)	13.341	0.000
4. Preparing and Supporting Entrepreneurs (P)	0.172	0.678
5. Digital Transformation and Capability (D)	102.228	0.000
6. Knowledge Exchange and Collaboration (K)	121.053	0.000
7. The Internationalized Institution (II)	0.213	0.645
8. The Impact of Implementing Entrepreneurial initiatives on the Quality of Education (I)	20.996	0.000
Total	37.646	0.191

Table 3.6 shows that using the Levene test for homogeneity indicates that none of the dimensions are homogenous between the university categories, as sig is less than 0.05, which supports the alternative hypothesis of non-equal variances.

Table 3.6: Homogeneity analysis of variances for the indicators by university.

Dimensions	Levene Statistic	Sig.
1. Leadership and Governance (L)	6.662	0.000
2. Organizational Capacity: Funding, People and Incentives (O)	3.579	0.003
3. Entrepreneurial Teaching and Learning (E)	6.068	0.000
4. Preparing and Supporting Entrepreneurs (P)	3.689	0.002
5. Digital Transformation and Capability (D)	3.061	0.009
6. Knowledge Exchange and Collaboration (K)	5.711	0.000
7. The Internationalized Institution (II)	4.756	0.000
8. The Impact of Implementing Entrepreneurial initiatives on the Quality of Education (I)	2.802	0.016
Total	3.005	0.010

Table 3.7 shows that using the Levene test for homogeneity indicates that none of the dimensions are homogenous between the position categories, as sig is less than 0.05, which supports the alternative hypothesis of non-equal variances.

Table 3.7: Homogeneity analysis of variances for the indicators by position.

Dimensions	Levene Statistic	Sig.
1. Leadership and Governance (L)	27.352	0.000
2. Organizational Capacity: Funding, People and Incentives (O)	152.506	0.000
3. Entrepreneurial Teaching and Learning (E)	45.328	0.000
4. Preparing and Supporting Entrepreneurs (P)	78.340	0.000
5. Digital Transformation and Capability (D)	53.500	0.000
6. Knowledge Exchange and Collaboration (K)	34.868	0.000
7. The Internationalized Institution (II)	188.515	0.000
8. The Impact of Implementing Entrepreneurial initiatives on the Quality of Education (I)	191.273	0.000
Total	166.052	0.000

Table 3.8 shows that using the Levene test for homogeneity indicates that none of the dimensions are homogenous according to the region categories, as sig is less than 0.05, which supports the alternative hypothesis of non-equal variances. The exceptions are the dimensions entrepreneurial teaching and learning, the internationalized institution and the impact of implementing entrepreneurial initiatives on the quality of education, which are shown to be homogenous according to the region categories.

Table 3.8: Homogeneity analysis of variances for the indicators by region.

Dimensions	Levene Statistic	Sig.
1. Leadership and Governance (L)	3.961	0.019
2. Organizational Capacity: Funding, People and Incentives (O)	4.427	0.012
3. Entrepreneurial Teaching and Learning (E)	1.048	0.351
4. Preparing and Supporting Entrepreneurs (P)	6.361	0.002
5. Digital Transformation and Capability (D)	3.607	0.027
6. Knowledge Exchange and Collaboration (K)	5.645	0.004
7. The Internationalized Institution (II)	1.162	0.313
8. The Impact of Implementing Entrepreneurial initiatives on the Quality of Education (I)	1.067	0.344
Total	0.511	0.600

3.4.1.3 Questionnaire Element Analysis

The above tests results show that all the p-values for each test are < 0.05 . This means that the data are not normally distributed and not homogenous. Therefore, nonparametric tests were used, e.g. Mann–Whitney u-test. Quantitative data are analyzed by the Statistical Package for the Social Sciences software (SPSS), version 18, to examine the data and explore the relationships between the questionnaire elements.

3.4.2 Secondary Data

First, the researcher clarified what is meant by entrepreneurship in universities by reviewing relevant literature, such as research papers, articles, previous studies and theses, to collect secondary data, such as definitions and statistics, and used online research to review documents related to current EPs. This research also included looking at the official websites of the universities and relevant organisations. The researcher also used different national reports, such as statistical data from the PCBS; data from local institutions, e.g. the MAS; the state of education sector strategic plan 2017–2022 and reports from international organisations, e.g. the ILO, OECD, World Bank and United Nations. The OECD and EC reports were used as a basis for the design of the questionnaire that was used as a tool to collect the primary data.

Chapter Four

Data Analysis and Results

4.1 Overview

This chapter discusses the analysis of the data collected using the mixed approach. As illustrated in Chapter Three, the qualitative data were analysed using the thematic analysis approach, while quantitative data were analysed using SPSS version 18. The first step was analysing the characteristics of the respondents of the qualitative method, then analysing the elements of the interviews by presenting the central themes and explaining these accurately to everyone. In the next stage, characteristics of the respondents to the questionnaire were discussed and descriptive analysis was conducted to rank the degree of implementation of EPs in Palestinian universities. Finally, inferential analysis was done to present the relationships between some variables.

4.2 Semi-Structured Interview Analysis

This section presents a descriptive outline of the characteristics of the experts who were interviewed. The 14 participants were distributed through three geographic areas in the WB, i.e. south, north and middle. Most of them were in six universities, which had been established in different years. Bethlehem is the oldest university and Kadoorie is the newest.

4.2.1 Categorisation of Participants

An analysis of the distribution of geographical areas shows that the of experts who participated in the interview, 36% were located in the south of the WB, 42% in the north and 22% in the middle, as shown in Figure 4.1.

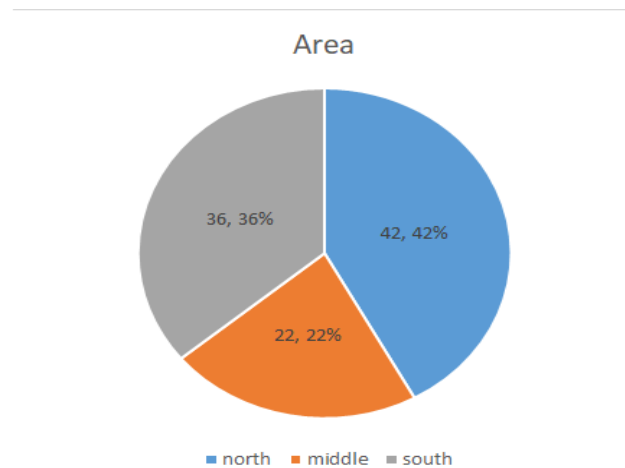


Figure 4.1: Distribution of area.

Participants were classified into following categories (for more details see Appendix E, Table E.1):

Category 1: Policymakers (president of the university, members of the board at the HCIE and vice president for planning and development at the university).

Category 2: Directors and managers of I&E units and business incubators in the universities.

Category 3: Instructors of entrepreneurship and innovation courses

Category 4: Others, e.g. researchers, entrepreneurs, public relations directors, Master's in Business Administration programme director and former Dean of planning, development and quality.

4.2.2 Interview Element Analysis

Interview elements aimed to collect more information from the perspective of Palestinian experts who work in the field of entrepreneurship. The researcher analysed the interviews by the thematic analysis approach, as mentioned in chapter three. The objective was to find the main theme that reflects on the current situation of the implementation of EPs in Palestinian universities. What practices are currently being implemented? What are the barriers facing Palestinian universities when implementing EPs? What are the success factors in this field? Six major themes have emerged from thematic analysis.

Entrepreneurship Education concept.

Entrepreneurial Practices.

Importance of Entrepreneurship.

Barriers to implementing EPS.

Success Factors For Implementing Entrepreneurship.

The Impact of Entrepreneurial Education on Entrepreneurial Attitude and Intent.

4.2.2.1 Entrepreneurship Education Concept

Participants were asked to describe the meaning of EE. Every interviewee gave a different definition of EE. That supports the argument that says that there is no official definition of entrepreneurship (Eze & Nwali, 2012; Sperr et al., 2016)

However, there were many common components in their definitions. All interviewees mention seizing opportunities, converting ideas into projects and considering limited resources. They all also mentioned characteristics of entrepreneurs, such as risk-taking, teamwork, leadership and creativity. In terms of the outputs of EE, some of the interviewees focused on the new product or service, adding value or solving a problem, while others focused on building a mindset of thinking, as even students can create a new business or work in other entrepreneurial enterprises.

4.2.2.2 Entrepreneurial Practices

Every university has different programmes to promote EPs. But most of them have common practices, such as extracurricular activities through workshops, competitions, conferences and training. The participants mentioned that the six universities have entrepreneurial courses. These universities have also established business incubators. However, not all of them are conducting EPs regularly. Some of the universities have other centres, units and departments that support entrepreneurship.

In reference to networking with many stakeholders, such as the government, private sector, other universities and entrepreneurs, there are many varying attitudes to this in Palestinian universities. In this context, there is a tendency to transform this into a win-win relationship between universities, companies and factories, so that the industry develops and universities profit. There is a call for joint efforts between universities, schools and the government to build a culture of entrepreneurship.

Many participants have redesigned their university's strategic plans, to be closer to achieving their goals of becoming an EU.

Regarding research, most participants confirmed that there is a shortage in this field. When referring to measuring the impact of entrepreneurial activities in universities, some participants emphasised that the impact has not been measured, but that the intention is to measure the impact of programmes and practices that have already been implemented at the universities.

4.2.2.3 Importance of Entrepreneurship

In this theme, most participants believe that entrepreneurship is important for economic development, to create new ventures or grow exciting businesses and to reduce the rate of unemployment by self-employment. Other participants believe that it is much more important to notice the outcomes of developing personality traits like risk-taking and creative thinking. Some participants thought that EE is important because a university needs to sustain its competitive position.

4.2.2.4 Barriers to Implementing EPs

Participants were asked to describe the main barriers facing the implementation of EPs in Palestinian universities. The interviewees mentioned two types of challenges. The first is general barriers at the national level. The second is particular barriers within the university. At the national level, there are three main barriers, namely concepts, finance and law, as shown in table 4.1. In Palestine, there is a deficit in many aspects of this subject as follows:

Each participant has their own definition of and perspective on entrepreneurship. There is no specific definition at the national level, and therefore, no definition that all universities are committed to joining their efforts and coordinating their activities towards.

Participants raised that there is no sustainable financial aid for entrepreneurial projects. These projects need to be funded in several stages, starting from seed funding to becoming an independent project.

One entrepreneurship and innovation centre manager said:

"Although the state established the Higher Council for Innovation and Excellence to support these projects, there is a lot of bureaucracy (excessively complicated administrative procedure) for supporting entrepreneurial projects, the evaluation of these projects, funding, and support, all are long bureaucratic processes, incompatible with the spirit of entrepreneurial work" (Interviewee R.Q).

Regarding the laws in the country, the participants mentioned that there are no laws that control entrepreneurial work at the national level.

At the university level, there are many barriers restricting the implementation of entrepreneurial development.

Twelve participants mentioned that they do not have a budget for entrepreneurship at the university. One of the business incubator's managers said,

'The disadvantage of external financing is to be dependable on what the donor wants, which type of start-up he needs, and what is the type of his support' (Interviewee F.K.).

Participants said that most universities do not have policies relating to managing and monitoring EPs.

One decision maker mentioned,

'A few universities have entrepreneurship as objective in their vision but there are no practices translated to this vision in serious actions' (Interviewee D. A.).

Participants also mentioned that the awareness of the value of entrepreneurship is still low and, in some universities, there is still resistance to change by staff and students. Many students still think about grades and graduation more than having this kind creative thinking. They

wish to work hard to graduate and then find a job. They do not have tenacity and risk-taking personalities.

Another barrier mentioned by participants is that there is a shortage of qualified staff and entrepreneurs in universities.

Most of the participants said that many universities do not take entrepreneurial projects and activities into consideration as a promotion criterion when promoting instructors.

Participants noted that some universities do not have enough support and commitment from top management to implement the EPs. The interviewees thought that bureaucracy was the reason.

Some interviewees thought that there is a need for an entrepreneurial curriculum. However, one interviewee said that the curriculum in Palestinian universities is similar to that used in famous and prestigious international universities and that the real issue was the need for better educational techniques and qualified instructors.

One of the barriers mentioned by many of participants is internationalisation. One interviewee highlighted the need for internationalisation in some areas like knowledge exchange, collaboration and idea sharing. Other participants consider internationalisation to be difficult because the competition and the cost will be higher to enter the global market.

Table 4.1: Summary of barriers hinder implementing Eps.

General barriers at the national level	Particular barriers within the university	Description barriers within the university
Concepts: no specific definition at the national level	The awareness and entrepreneurial culture still low	Very Great barrier
	Budget: no special budgets for entrepreneurship	Very Great barrier
Finance: no sustainable financial	Policies: lake of supportive policies to control Eps (recruitment, promotions, evaluation)	Great barrier
	Shortage of qualified staff and entrepreneurs	Great barrier
Law: no laws that control entrepreneurial work at the national level	No enough support and commitment from top management	Great barrier
	Internationalization	Medium barrier
	Entrepreneurial curriculum	Small barrier

4.2.2.5 Success Factors for Implementing Entrepreneurship

Participants also discussed the fundamental requirements for the successful implementation of entrepreneurship in Palestinian universities in the WB. They indicated that there are two kinds of success factors, internal and external. The interviewees thought that there are many important internal success factors that need to be adopted by universities to succeed in entrepreneurial education. As shown in table 4.2.

The interviewees all agree that EE in Palestinian universities requires a strong ecosystem to support economic growth which agreed with argument of Mikkonen (2015).

All the interviewees focused on the importance of the need for a national strategic plan for entrepreneurship in the WB to harmonise the work in the universities. Most of them emphasised the need for an entrepreneurship database in the WB as an element of success. They also indicated that the government plays an important role in the success of entrepreneurship in the WB. Therefore, universities must cooperate with the government in implementing their projects and developing entrepreneurship in universities. The interviewees emphasised very clearly the importance of the Palestinian Ministry of Economy's role in the success of entrepreneurship, as it needs to support start-ups and decrease the complexities involved in registering and closing companies, so that emerging companies are dealt with effectively. There are more internal success factors that universities can also focus on, such as training instructors; raising awareness among students and instructors; restructuring academic programmes, infrastructure and education style; networking with the private sector; cooperating with other universities and obtaining sustainable financing. These factors were arranged by each university in terms of the needs and priorities of the university of each particular factor.

Table 4.2: Summary of success factors to develop entrepreneurship in university.

Factors outside the university	Factors inside the university	Description the factors insides.
School , family (the culture)	Raising the awareness of students and instructors	Very important
National law and national strategic plan support and organized the entrepreneurship	Provide Sustainable funding for entrepreneurial projects	Important
Establish data base to arrange entrepreneurship sector in the state	Training instructors, restructure the academic program, infrastructures, education style to be consistent with the entrepreneurial encouragement	Important
Cooperation with government	Networking with private sector	Very important
Activating the economics ministry role in supports and register the entrepreneurial companies.	Cooperation with others universities	Important

4.2.2.6 The Impact of Entrepreneurial Education on Entrepreneurial Attitude and Intent

Most of the participants agreed that there has been improvement in many aspects, according to their impact. Not all universities measured this. More than one participant said,

‘Some universities announced that they have the intention to measure the impact of the EP in their institutions’. (Interviewees S. S. and R. Q.).

In addition, five participants indicated that their universities are planning to add an MSc programme in entrepreneurship and innovation. Half of the participants said that some universities are starting to convert research and graduation projects into applied research and entrepreneurship projects.

Participants mentioned that some universities have announced a future financial allocation for entrepreneurial projects. One of the participants said that their university had a dedicated budget for EPs. Other participants mentioned that many universities have already introduced entrepreneurship into the curriculum as a result of the Erasmus4 project; the EU's programme to support education, training, youth.

All participants agreed on the impact of the EPs, such as courses, workshops, awards, competitions, etc., in increasing student awareness of and participation rate in these practices. In general, most of them agree that there is a noticeable increase in some indicators, such as the number of entrepreneurial projects, students, instructors, training courses and trainers.

Most participants mentioned that they use a bottom-up approach to implementing entrepreneurship in universities, while a few of them used a top-down approach. One participant mentioned that their university used middle agents. Table 4.3 summarises the central themes.

Table 4.3: Summary of identified codes, basic themes and central themes

Codes	Issues discussed	Central Themes
Opportunity	Limited resources, motivation	Entrepreneurship Education concept
Skills - attributes	Vision/ risk-taken/ leader/team-work/creative/ managerial skills	
Ideas	Solve-problem/ new product new service/ add value/	
Job creation	Income/ self-employment/ make changes	

⁴ https://ec.europa.eu/programmes/erasmus-plus/about_en

Entrepreneurial courses	Compulsory, elective, a students, few faculties'	Entrepreneurship Practices
Business Incubator building	Centers, units, department	
Extracurricular activities	Workshop, Competitions, conference, training,	
Networking	Government, private sector, another universities, entrepreneur	
Strategic plan	Design	
Training	Instructors, students	
Impact measuring	None / every 2 years/ every 4 years	
Research	Shortage	
University structure	Reform	
Economic development	Increase	Entrepreneurship Importance
Decrease unemployment.	By job creation, self-employ and others too	
Entrepreneurial mindset	Change thinking	
competition	Competitive position.	
Concepts	No official definition	Barriers
Finance	Not Sustainable, no special budget	
Policies	Absence	
Internationalization	Difficulties	
Law	No national Law	
Success stories	No official definition, but there is many stories can be remained:	
Factors outside the university	School , family(genic), International policies and strategic plan, data base to arrange entrepreneurship sector in the state, cooperation with government, economic ministry role in supports and register this kind of companies,	Success factors
Factors inside the university	Training instructors, student and instructors awareness, restructure the academic program, infrastructures, education style, networking with private sector, cooperation with others universities, sustainable finance	
Impact	Improvement in some aspects: projects, students, instructors, training courses, trainer.	The Impact of Entrepreneurship Education on Entrepreneurial Attitudes and Intention
Attitudes	Curriculum, master program, research and graduation projects, budgets for entrepreneurship measuring impact	
The approach	Top-down Bottom-up Middle-agents	

4.3 The Quantitative Approach

In this section, a detailed analysis of assessing entrepreneurship practices at the Palestinian Higher Education Institutions is presented. The analysis of the survey is divided into frequencies test, percentages, mean and standard deviations by using Mann-Whitney and Kruskal-Wallis Tests. While Spearman's Correlation Coefficient is used to measure the correlation between the dimensions of the questionnaire.

4.3.1 Gender

The gender distribution of the sample were (47.5% male, 52.5% female) as shown in Figure (4.2).

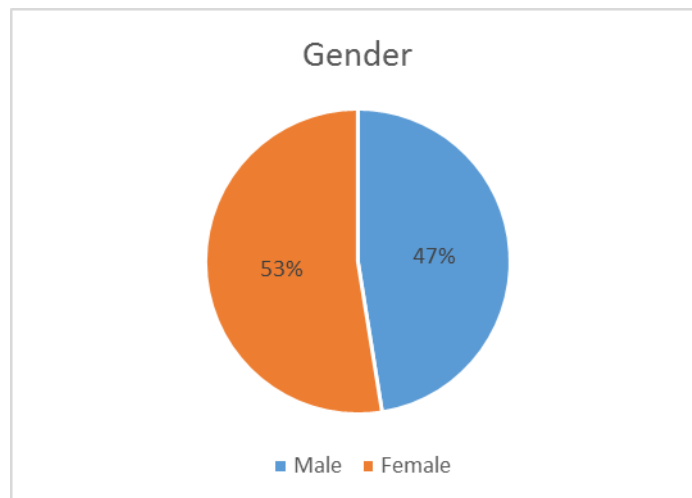


Figure (4.2): Distribution of Gender.

4.3.2 Respondents' Position Category

Respondents were divided based on their positions in their universities. Figure (4.3) shows that 52% of the participants are students, 29% are alumni, and 19% are staff and faculty.

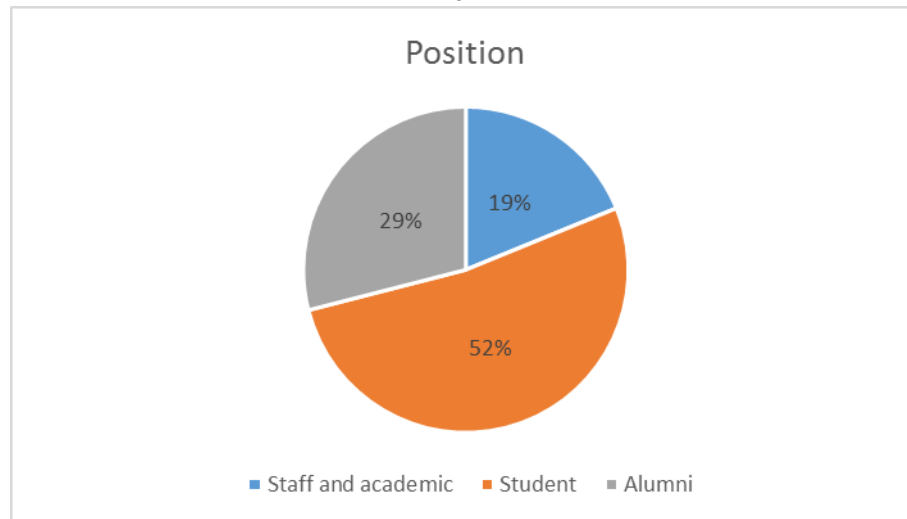


Figure (4.3): Distribution of position.

4.3.3 Faculties and Departments of Respondents

For the academic major of the respondents faculty of engineering has the largest share with 43% followed by the faculty of economic and administration with 22% share, as shown in Figure (4.4). While the department of computer science has 10% share. In addition to the share of this sector is the computer engineering department in the faculty of engineering. This is consistent with the argument of Bisharat et al. (2020) that the most common type of incubators are engineering and information technology, and the most involved in the arena of Palestinian entrepreneurship.

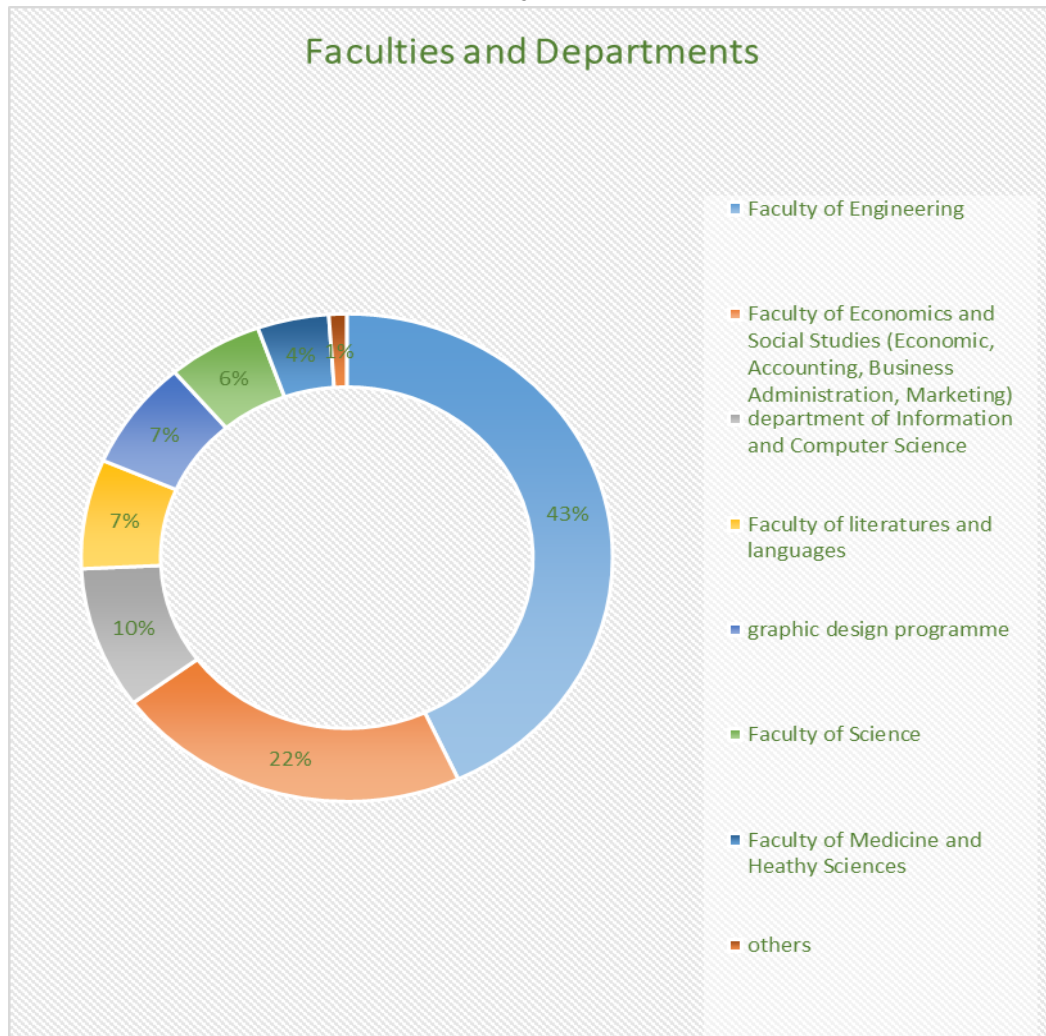


Figure (4.4): Faculties and departments.

4.3.4 Participation in Entrepreneurial Activities in the Universities

Table (4.2) shows that (49.1%) of the respondents participated in a lecture about entrepreneurship, and only (13.5%) of them participated in conducting a research about the subject or graduation project in the same field, while (46.8%) participated in a workshop, followed by conferences with (36.6%), Whereby (31.1%) of the respondents participated by creating Projects or small business.

Table (4.4): Type of participation in entrepreneurial activity in your University.

Participation	Answer	Percentage
Workshop	Yes	46.8%
	No	53.2%
Conference	Yes	36.6%
	No	63.4%
Lecture	Yes	49.1%
	No	50.9%
Project or Small business creating	Yes	31.1%
	No	68.9%
Research about the subject or graduation project	Yes	13.5%
	No	86.5%
Entrepreneurial competitions and initiatives	Yes	4.7%
	No	95.3%
Training, coordination and management business for leadership	Yes	3.6%
	No	96.4%

4.3.5 Respondents According to Region

Participants were divided based on their region in their universities. Figure (4.5) shows that 38% of the respondents are from the south of WB, 36% are from the middle of WB, and 26% are from the north of WB.

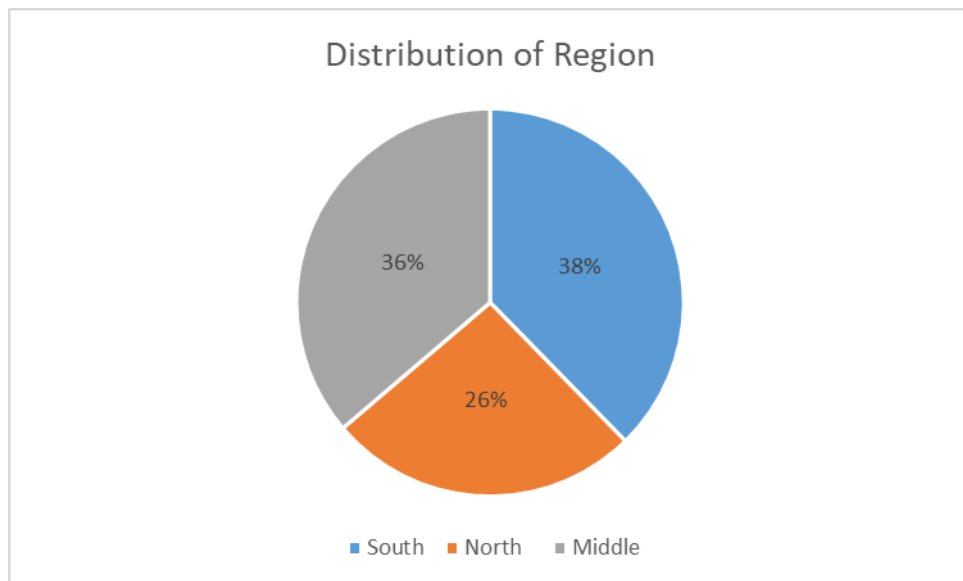


Figure 4.5: Distribution of region.

Participant opinions

On a five-point Likert-type scale with 1=Not at all to 5=To a very great extent, participants were asked to respond to a number of items concerning their opinion of implementing EPS in the universities.

In order to have a picture about the evaluations of respondents' answers and to analyze the results, the average of each statement was calculated by dividing the response range (5-1) by the number of interval which is 5, as follows; $(5-1)/5=0.8$, Table (4.5) shows the intervals and there represented scaling degrees used in the study. The percentage of 100% was calculated to make it easy to the reader to read by dividing each average by 5. Where the Scaling for the degree of the average was added to each statement of evaluation as follows.

Table (4.5): Scaling Degrees.

Interval	Degree
1.00-1.80	Very low
> 1.80-2.60	Low
> 2.60-3.40	Mid
> 3.40-4.20	High
> 4.20-5.00	Very high

4.4 The Dimensions of Implementing EP in the Universities

4.4.1 Leadership and Governance (L)

Table (4.6) shows that the average of the Leadership and Governance dimension score was 3.62 with a percentage of 72.3% which is a high degree of implementation. The statement of "Entrepreneurship is a major part of the University's strategy" comes first in the score with 72.8%.

Followed by the statement “The University encourages and supports faculties and units to act entrepreneurially” with 72.7%. Then the last in order was “The university pays great attention to implementing the entrepreneurial agenda” with a percentage of 71.5%.

Table (4.6): Application degree for the “leadership and governance” practices.

Items	Mean	Std.	Percentage	Degree
Entrepreneurship is a major part of the University’s strategy	3.64	1.06	72.8%	High
The university pays great attention to implementing the entrepreneurial agenda	3.58	1.02	71.5%	High
The University encourages and supports faculties and units to act entrepreneurially.	3.64	1.10	72.7%	High
Total	3.62	0.95	72.3%	High

4.4.2 Organizational Capacity: Funding, People and Incentives (O)

Table (4.7) shows the average of the Organizational Capacity: Funding, People, and Incentives dimension score was 3.30 with a percentage of (66%) which is mid degree. The statement of “The University is open to engaging and recruiting individuals with entrepreneurial attitudes, behavior, and experience.” comes first in the score with 71.1%. Followed by the statement “Entrepreneurial objectives are supported by a wide range of sustainable funding and investment sources” with 65.1%. Then the last in order was “Incentives and rewards are given to staff who actively support the entrepreneurial agenda.” with a percentage of 61.8%.

Table (4.7): Application degree for the “the organizational capacity: funding, people and incentives” practices.

Items	Mean	Std.	Percent	Degree
Entrepreneurial objectives are supported by a wide range of sustainable funding and investment sources.	3.25	1.16	65.1%	Mid
The University is open to engaging and recruiting individuals with entrepreneurial attitudes, behavior and experience.	3.55	1.10	71.1%	High
Incentives and rewards are given to staff who actively support the entrepreneurial agenda.	3.09	1.16	61.8%	Mid
Total	3.30	0.97	66.0%	Mid

4.4.3 Entrepreneurial Teaching and Learning (E)

Table (4.8) below shows the average of the Entrepreneurial Teaching and Learning dimension score was (3.54) with a percentage of (70.8%) which is a high degree. The statement of “The University provides diverse formal learning opportunities to develop entrepreneurial mindsets and skills...” comes first in the score with (72.8%). Followed by the statement “The University co-designs and delivers the curriculum with external stakeholders” with (71.5%). Then the last in order was “The University validates entrepreneurial learning outcomes which drive the design and execution of the entrepreneurial curriculum.” with a percentage of (67.7%).

Table (4.8): Application degree for the “entrepreneurial teaching and learning” practices.

Items	Mean	Std.	Percent	Degree
The University provides diverse formal learning opportunities to develop entrepreneurial mindsets and skills.	3.64	1.09	72.8%	High
The University provides diverse informal learning opportunities and experiences to stimulate the development of entrepreneurial mindsets and skills.	3.55	1.10	71.1%	High
The University validates entrepreneurial learning outcomes which drives the design and execution of the entrepreneurial curriculum.	3.39	1.06	67.7%	Mid
The University co-designs and delivers the curriculum with external stakeholders	3.58	1.06	71.5%	High
Total	3.54	0.94	70.8%	High

4.4.4 Preparing and Supporting Entrepreneurs (P)

Table 4.9 shows the average of the Preparing and Supporting Entrepreneurs dimension the score was 3.44 with a percentage of 68.9% which is a high degree. The statement of “The University increases awareness of the value of entrepreneurship and stimulates the entrepreneurial intentions of students, graduates and staff to start-up a business or venture...” comes first in the score with 74.6%. Followed by the statement “Mentoring and other forms of personal development are offered by experienced individuals from academia or industry.” with 71.3%. Then the last in order was “The University facilitates access to financing for its entrepreneurs.” with a percentage of 59.4%.

Table (4.9): Application degree for the “preparing and supporting entrepreneurs” practices.

Items	Mean	Std.	Percent	Degree
The University increases awareness of the value of entrepreneurship and stimulates the entrepreneurial intentions of students, graduates and staff to start-up a business or venture.	3.73	1.07	74.6%	High
The University supports its students, graduates and staff to move from idea generation to business creation	3.46	1.15	69.3%	High
Training is offered to assist students, graduates and staff in starting, running and growing a business.	3.41	1.20	68.2%	Mid
Mentoring and other forms of personal development are offered by experienced individuals from academia or industry.	3.57	1.06	71.3%	High
The University facilitates access to financing for its entrepreneurs.	2.97	1.18	59.4%	Mid
The University offers or facilitates access to business incubation	3.53	1.13	70.6%	High
Total	3.44	.94	68.9%	High

4.4.5 Digital Transformation and Capability (D)

Table (4.10) below shows the average of the Digital Transformation and Capability dimension score was (3.38) with an index of (67.6%) which is mid degree. The statement of “The University is committed to digital teaching, learning and assessment practices.” comes first in the score of (68.6%). Followed by the statement “Open science and innovation practices are widespread across the University...” with (68.0%). Then the last in order was “The University fosters a digital culture as a mean for innovation and entrepreneurship...” with a percentage of (66.6%).

Table (410.): Application degree for the “digital transformation and capability” practices.

Items	Mean	Std.	Percent	Degree
The University fosters a digital culture as a mean for innovation and entrepreneurship.	3.33	1.07	66.6%	Mid
The University is committed to digital teaching, learning and assessment practices.	3.43	.98	68.6%	Mid
Open science and innovation practices are widespread across the University.	3.40	1.03	68.0%	Mid
The University has a dynamic digital presence supporting all its activities.	3.35	1.02	67.1%	Mid
Total	3.38	.89	67.6%	Mid

Table (4.10) shows clearly to what extend the universities implementing this practices all of them are mid-level with closely average.

4.4.6 Knowledge Exchange and Collaboration (K)

Table (4.11) shows the average of the Knowledge Exchange and Collaboration dimension score was (3.53) with a percentage of (70.7%) which is a high degree. The statement of “The University has strong links with incubators, science parks, and other external initiatives.” comes first in the score of (72.8%). Followed by the statement “The University demonstrates active involvement in partnerships and relationships with a wide range of stakeholders.” with a percentage of (71.9%). Then the last in order was “The University provides opportunities for staff and students to take part in innovative activities with business the external environment.” with a percentage of (67.3%).

Table (4.11): Application degree for the “knowledge exchange and collaboration” practices.

Items	Mean	Std.	Percent	Degree
The University demonstrates active involvement in partnerships and relationships with a wide range of stakeholders.	3.59	.98	71.9%	High
The University has strong links with incubators, science parks and other external initiatives	3.64	1.05	72.8%	High
The University provides opportunities for staff and students to take part in innovative activities with business / the external environment.	3.36	1.07	67.3%	Mid
Total	3.53	.88	70.7%	High

4.4.7 The Internationalized Institution (II)

Table 4.12 shows the average of the Internationalized Institution dimension score was (3.32) with a percentage of (66.3%) which is mid degree. The statement of “The University develops extensive links with international research networks and innovation clusters” comes first with the score of (68.1%). Followed by the statement “The University explicitly supports the international mobility of its staff and students...” with the score of (67.3%). Then the last in order was “The University seeks and attracts international and entrepreneurial staff.” with percentage of (63.6%).

Table (4.12): Application degree for the “internationalized institution” practices.

Items	Mean	Std.	Percent	Degree
The University explicitly supports the international mobility of its staff and students.	3.36	1.03	67.3%	Mid
The University seeks and attracts international and entrepreneurial staff.	3.18	.99	63.6%	Mid
The University develops extensive links with international research networks and innovation clusters	3.40	1.00	68.1%	Mid
Total	3.32	.87	66.3%	Mid

Table (4.12) shows on observable way that the universities are implementing of the practices in the field internationalized institution in mid-level with a percentage of (66.3%). Where the three elements have minor differences between their averages and all of them are considered mid-level.

4.4.8 The Impact of Implementing Entrepreneurial Initiatives on the Quality of Education (I)

Table (4.13) shows the average of The Impact of Implementing Entrepreneurial initiatives on the Quality of Education dimension score was (3.52) with a percentage of (70.3%) which is a high degree. The statement of “Implementing Entrepreneurial initiatives that helped discover talented students.” comes first in the score of (73.5%). followed by the statement “Implementing Entrepreneurial initiatives increased students ’entrepreneurial skills, such as the ability to entrepreneurial thinking, take risks, work in a team, and creative thinking” with the score of (73.0%). Then the last in order was “Implementing Entrepreneurial initiatives contributed to changing the instructor’s methods and processes of evaluating the students, by using the modern methods.” with a percentage of (66.0%).

Table (4.13): Application degree for “the impact of implementing entrepreneurial initiatives on the quality of education” practices.

Items	Mean	Std.	Percent	Degree
Implementing Entrepreneurial initiatives contributed in changing teaching methods and linking them to reality more	3.35	1.09	67.0%	Mid
Implementing Entrepreneurial initiatives contributed in changing the instructor's methods and processes of evaluation the students, by using the modern methods	3.30	1.10	66.0%	Mid
Implementing Entrepreneurial initiatives increased students 'entrepreneurial skills, such as the ability to entrepreneurial thinking, take risks, work in a team, and creative thinking	3.65	1.05	73.0%	High
Implementing Entrepreneurial initiatives that helped discover talented students	3.67	1.06	73.5%	High
Implementing Entrepreneurial initiatives increased the desire of students to implement entrepreneurial work	3.63	1.06	72.6%	High
Implementing Entrepreneurial initiatives contributed in the development of the innovation and entrepreneurship courses	3.59	1.07	71.9%	High
Implementing Entrepreneurial initiatives contributed in providing the necessary resources and suitable environment for entrepreneurial work	3.41	1.04	68.3%	Mid
Total	3.52	.92	70.3%	High

On the other hand, the impact of the implementation of entrepreneurial initiatives at the university on the remained elements was mid-level, descending order according to the degree affected by the implementation of the initiatives:

Providing entrepreneurial work with the necessary resources and suitable environment.

Contributing to changing teaching methods and linking them to reality more.

Contributing to changing the instructor's methods and processes of evaluating the students, by using the modern methods.

The last component is the least affected component, by implementing entrepreneurship initiatives in universities, at a relatively intermediate level with a percentage of (66.0%).

The analysis of the eight dimensions shows that there is high level of implementing EP in the Palestinian universities with average score was (3.46) out of (5).

4.5 Inferential Analysis

Inferential analysis is utilized since the two requirements for this kind of analysis are available; the response rate is very high and the sample is a random procedure, this is in order to generalize the results gathered from the probability sample back to the population from which the sample was formed (Creswell, 2012).

A significant Kruskal–Wallis test indicates that at least one sample stochastically dominates one other sample.

Table (4.14): Test equality of means among positions categories using Kruskal-Wallis test.

Dimensions	position	Mean Rank	Chi-square	df	Asymp. Sig.
1. Leadership and Governance (L)	Staff	3334.60	445.120	2	0.000
	Student	2640.60			
	Alumni	2103.74			
2. Organizational Capacity: Funding, People and Incentives (O)	Staff	2688.86	113.255	2	0.000
	Student	2835.86			
	Alumni	2310.23			
3. Entrepreneurial Teaching and Learning (E)	Staff	3228.74	347.480	2	0.000
	Student	2671.91			
	Alumni	2138.80			
4. Preparing and Supporting Entrepreneurs (P)	Staff	3308.72	353.877	2	0.000
	Student	2585.64			
	Alumni	2220.56			
5. Digital Transformation and Capability (D)	Staff	2895.33	136.003	2	0.000
	Student	2756.94			
	Alumni	2272.71			
6. Knowledge Exchange and Collaboration (K)	Staff	3131.87	247.491	2	0.000
	Student	2674.18			
	Alumni	2216.49			
7. The Internationalized Institution (II)	Staff	2754.41	68.099	2	0.000
	Student	2764.60			
	Alumni	2378.20			
8. The Impact of Implementing Entrepreneurial initiatives on the Quality of Education (I)	Staff	2779.37	76.991	2	0.000
	Student	2763.57			
	Alumni	2358.94			

The results from the Kruskal-Wallis H test shows that there are statistically significant differences (sig) which is less than (0.05) according to the positions of the respondents in the degree of implementing the EPs.

Table (4.15) shows the means of dimensions among position categories. For the “Leadership and Governance” the higher position means of score was for the staff (4.0162) while according to the respondent answers the lowest universities means of score was for the Alumni (3.288).

For the” Organizational Capacity: Funding, People and Incentives “the higher position means of score was for the student (3.403) according to the respondent answers where the lowest positions means of score was for the Alumni (3.059)

For all remaining dimensions the higher positions means of score was for the staff according to the respondent answers where the lowest means of score was for the Alumni.

Table (4.15): Means of dimensions among positions.

Dimensions	Staff	Student	Alumni	Total
1. Leadership and Governance (L)	4.0162	3.6128	3.2889	3.6170
2. Organizational Capacity: Funding, People and Incentives (O)	3.3707	3.4031	3.0593	3.2990
3. Entrepreneurial Teaching and Learning (E)	3.8646	3.5595	3.2318	3.5395
4. Preparing and Supporting Entrepreneurs (P)	3.8108	3.4246	3.1725	3.4450
5. Digital Transformation and Capability (D)	3.5471	3.4373	3.1349	3.3783
6. Knowledge Exchange and Collaboration (K)	3.7895	3.5621	3.2659	3.5326
7. The Internationalized Institution (II)	3.3781	3.3758	3.1578	3.3151
8. The Impact of Implementing Entrepreneurial initiatives on the Quality of Education (I)	3.6173	3.5900	3.3026	3.5158
Total	3.6817	3.5008	3.2102	3.4619

Gender analysis for the difference of means

The below table (4.16) shows that (4) dimensions have means score significant difference among male and female since the (sig) is less than (0.05) which are:

Leadership and Governance.

Organizational Capacity: Funding, People and Incentives.

Digital Transformation and Capability.

The Impact of Implementing Entrepreneurial initiatives on the Quality of Education.

The below table (4.16) also shows that the (4) dimensions have mean score not -significant difference among male and female since the (sig) is more than (0.05) which are:

Entrepreneurial Teaching and Learning.

Preparing and Supporting Entrepreneurs.

Knowledge Exchange and Collaboration.

The Internationalized Institution.

Table (4.16): Test equality of means among gender categories using Mann-Whitney U Test.

Dimension	Gender	Mean Rank	Sum of Ranks	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
1. Leadership and Governance (L)	Male	2539.5	6165917.5	3217111.5	6165918	-5.0	0.000
	Female	2750.6	7918860.5				
2. Organizational Capacity: Funding, People and Incentives (O)	Male	2380.4	5779600.5	2830794.5	5779601	-12.0	0.000
	Female	2884.7	8305177.5				
3. Entrepreneurial Teaching and Learning (E)	Male	2616.5	6352932.0	3404126.0	6352932	-1.6	0.100
	Female	2685.6	7731846.0				
4. Preparing and Supporting Entrepreneurs (P)	Male	2624.65	6372652.50	3423846.5	6372653	-1.3	0.199
	Female	2678.75	7712125.50				
5. Digital Transformation and Capability (D)	Male	2448.53	5945041.50	2996235.5	5945042	-9.0	0.000
	Female	2827.28	8139736.50				
6. Knowledge Exchange and Collaboration (K)	Male	2669.60	6481777.50	3457240.5	7603001	-.7	0.492
	Female	2640.85	7603000.50				
	Total						
7. The Internationalized Institution (II)	Male	2646.21	6425004.50	3476198.5	6425005	-.3	.732
	Female	2660.57	7659773.50				
8. The Impact of Implementing Entrepreneurial initiatives on the Quality of Education (I)	Male	2551.88	6195969.50	3247163.5	6195970	-4.5	.000
	Female	2740.12	7888808.50				
Total	Male	2533.08	6150315.50	3201509.5	6150316	-5.3	.000
	female	2755.98	7934462.50				

Table (4.17) shows the means of dimensions among gender categories. For all the dimensions the higher gender means of score was for the Female according to the respondent answers (The mean rank for female answers is higher than male according to respondents' answers), except for "Knowledge Exchange and Collaboration" dimension score the higher mean for male.

Table (4.17): Means of dimensions among gender.

Dimension	gender	Mean	Std. Deviation
1. Leadership and Governance (L)	male	3.5208	0.99881
	female	3.6980	0.90514
2. Organizational Capacity: Funding, People and Incentives (O)	male	3.1085	0.96721
	female	3.4591	0.94345
3. Entrepreneurial Teaching and Learning (E)	male	3.4984	0.93151
	female	3.5740	0.94008
4. Preparing and Supporting Entrepreneurs (P)	male	3.4174	0.93994
	female	3.4681	0.93840
5. Digital Transformation and Capability (D)	male	3.2617	0.79325
	female	3.4763	0.96064
6. Knowledge Exchange and Collaboration (K)	male	3.5431	0.79691
	female	3.5238	0.94411
7. The Internationalized Institution (II)	male	3.3130	0.85416
	female	3.3169	0.88767
8. The Impact of Implementing Entrepreneurial initiatives on the Quality of Education (I)	male	3.4614	0.87347
	female	3.5615	0.94758
Total	male	3.4009	0.73560

Table 4.18 shows that all dimensions that have a significant differences of means among the region categories since the (sig) is less than 0.05. The average ranks show that the south region differs the most from the average rank for all observations and that this region is higher than the overall median. However, P-value is less than 0.05 in all dimensions. For

example, the p-value indicates that the median number of “Leadership and Governance” differs for at least one region.

Table (4.18): Test equality of means among region categories using Kruskal-Wallis test.

Dimension	region	Median	Mean Rank	Chi-square	df	Asymp. Sig.
1. Leadership and Governance (L)	North	3.00	1858.52	343.614	2	0.000
	Middle	3.33	2331.05			
	South	4.00	2974.13			
2. Organizational Capacity: Funding, People and Incentives (O)	North	3.00	1801.50	302.626	2	0.000
	Middle	3.33	2402.95			
	South	3.67	2939.27			
3. Entrepreneurial Teaching and Learning (E)	North	3.00	1770.04	309.960	2	0.000
	Middle	3.50	2409.52			
	South	4.00	2940.17			
4. Preparing and Supporting Entrepreneurs (P)	North	3.00	1740.56	391.962	2	0.000
	Middle	3.33	2334.84			
	South	3.83	2990.18			
5. Digital Transformation and Capability (D)	North	3.00	1973.75	237.416	2	0.000
	Middle	3.25	2392.92			
	South	3.50	2918.58			
6. Knowledge Exchange and Collaboration (K)	North	3.00	1908.01	176.415	2	0.000
	Middle	3.67	2522.82			
	South	3.67	2849.81			
7. The Internationalized Institution (II)	North	3.00	2263.47	46.116	2	0.000
	Middle	3.33	2594.06			
	South	3.33	2751.19			
8. The Impact of Implementing Entrepreneurial initiatives on the Quality of Education (I)	North	3.43	2051.33	119.710	2	0.000
	Middle	3.57	2534.24			
	South	3.71	2820.57			

Table (4.19) shows the means of dimensions among region categories. For the “Leadership and Governance” the higher region means of score was for the south region (3.792) while according to the respondent answers the lowest region means of score was for the North region (3.1019)

For the” Organizational Capacity: Funding, People and Incentives “the higher region means of score was for the south region (3.447) according to the respondent answers where the lowest positions means of score was for the North region (2.747)

For all remaining the dimensions, the higher region means the score was for the south region according to the respondents` answers where the lowest means of the score was for the north region in WB.

Table (4.19): Means of dimensions among region.

Dimension	North	Middle	South	Total
1. Leadership and Governance (L)	3.1019	3.4541	3.7924	3.6170
2. Organizational Capacity: Funding, People and Incentives (O)	2.7479	3.1887	3.4476	3.2990
3. Entrepreneurial Teaching and Learning (E)	2.9892	3.3982	3.7070	3.5395
4. Preparing and Supporting Entrepreneurs (P)	2.8971	3.2773	3.6281	3.4450
5. Digital Transformation and Capability (D)	2.9769	3.2372	3.5236	3.3783
6. Knowledge Exchange and Collaboration (K)	3.0916	3.4689	3.6367	3.5326
7. The Internationalized Institution (II)	3.0607	3.3039	3.3597	3.3151
8. The Impact of Implementing Entrepreneurial initiatives on the Quality of Education (I)	3.1570	3.4505	3.6087	3.5158
Total	3.1019	3.4541	3.7924	3.6170

This chapter has presented the results of data collection from the two approaches: the semi-structured interview and the questionnaire. From the interview data, the thematic analysis approach revealed six themes. The first theme is entrepreneurship education concept, the second is entrepreneurial practices, the third is importance of entrepreneurship, the fourth is barriers, the fifth is success factors, and the sixth is the impact of entrepreneurial education on entrepreneurial attitude and intent.

The finding of the descriptive analysis of the survey showed that the highest rank of the implementation degree of the EPs in the Palestinian universities was leadership and governance (72.3%) while the lowest rank was organisational capacity, i.e. funding, people and incentives (66.0%).

Generally, all participants felt most positive about the implementation of EPs.

The issue of how EPs have been implementing at the Palestinian universities will be discussed in the next chapter based on the findings of this chapter and other chapters in the thesis.

Chapter Five

Discussion

5.1 Overview

The purpose of this study is to explore the EPs and then to assess the extent to which these EPs are being implemented in universities in the WB. Based on the assessment tool, which was created by the EC and the OECD to help universities to measure their current situation and identify potential areas of action, this study included 33 EPs that have been categorised into eight key dimensions: (1) leadership and governance, (2) organisational capacity, i.e. funding, people and incentives, (3) entrepreneurial teaching and learning, (4) preparing and supporting entrepreneurs, (5) digital transformation and capability, (6) knowledge exchange and collaboration, (7) the internationalised institution and (8) the impact of implementing entrepreneurial initiatives on the quality of education. In this section, the researcher answers the study questions.

5.2 Discussion of Entrepreneurial Practices in Palestinian universities

What practices have been implemented by Palestinian universities to promote entrepreneurship?

Semi-structured interviews were designed to answer this question and were conducted with experts in the field of entrepreneurship. The interviews were specifically designed to answer the fifth question, see Appendix A. These questions were analysed, as discussed. All the

interviewees agree with Sperr et al. (2016) and Eze & Nwali (2012), who define EPs in different ways. However, they do also have many common components in their definitions. As a result, the interviewees have different programmes to promote EPs. However, most of them have common practices, such as extracurricular activities through workshops that aim to improve the students' general business skills, which they require to be entrepreneurs, and to train students on convert their entrepreneurial ideas into businesses. These practices include:

Competitions: Some of these are conducted at the national level, e.g. the Hult Prize.⁵ All the universities in the study participate in this competition.

Conferences: These are conducted within universities or at the national level under the supervision of the state organisations. Some of the universities participated in international conferences.

Training: This includes training the students and the instructors at different levels and in different ways. In the first stage, they faced resistance to change. Subsequently, the participation in these training initiatives has grown. However, they still need more training, especially for the instructors to be able to lead their courses. For example, training of trainers, which enables them to train their students in the skills needed to become entrepreneurs.

⁵ <http://www.hultprize.org/>

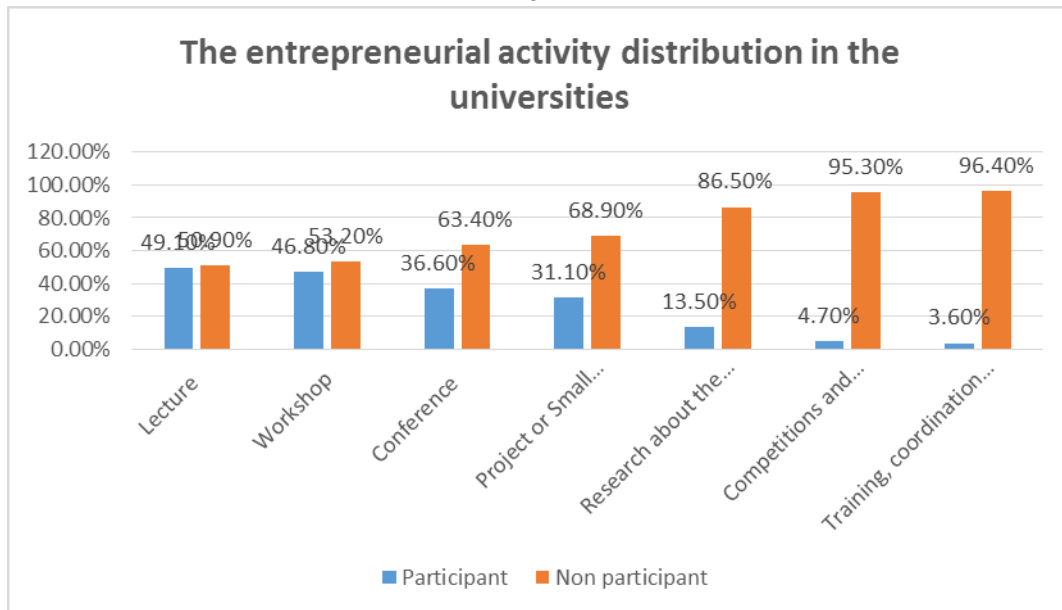


Figure 5.1: The entrepreneurial activity distribution in the universities.

As shown in Figure 5.1, the universities focus on some entrepreneurial activities, such as workshops, lectures and conferences. However, only 30% of participants have participated in project or small business creating and only 13.5% in research about the subject or graduation projects. This shows that there is a need for more applied research in universities. Quotas for projects that apply to reality must be established, and the graduation projects must be commercialised. All participants agreed on the objectives of entrepreneurial courses as being achieving a basic knowledge of entrepreneurship and spreading the culture of entrepreneurship through universities. However, they teach these courses in different ways. Some consider these courses to be compulsory requirements to graduate, while others present them as elective courses. Many think that this kind of course should be compulsory for all students in every department in all universities, but there are few universities that

provide these courses, e.g. some colleges or departments, such as engineering colleges or business administration departments. These courses have been offered in universities starting from about 1–5 years ago.

Business incubators, their activity levels and efficiency, were also considered. Four of these incubators were established three years ago and two were established ten years ago. This supports Bisharat et al. (2020) who mentioned in the annual Palestinian business incubators entrepreneurship index that most business incubators are newly established because the entrepreneurial sector has recently emerged, specifically in the WB.

Other centres, units and departments also support entrepreneurship. Some universities have their own special initiatives, e.g. MASARI, an integrated system for students and graduates of the Birzeit University, which aims to manage employment via the internet by connecting students with the labour market and opening the door to companies and institutions that are advertising employment opportunities.

NaBIC is a centre with an interest in the relationship between An-Najah National University, factories and the service sector. This centre works to create partnerships with various business sectors to implement scientific research, to provide solutions and to promote a culture of creativity among students.

There are many positive attitudes in the universities in the WB toward networking with many stakeholders, such as the government, the private sector, other universities and entrepreneurs. It was discussed how this networking can create more efficient win-win relationships among stakeholders.

Some universities have redesigned their strategic plans to move closer to achieving their goal of becoming an EU. In addition, some universities, e.g. Palestine Polytechnic University, have restructured the organisational structure of the university to become more effective in implementing their new strategic plan.

Most universities confirmed that there is a shortage of research in the field of entrepreneurship, but that there is a new interest in more research in this field. This finding supports the study problem mentioned in chapter one.

In terms of measuring the impact of entrepreneurship in universities, some universities do not measure this impact, but there are intentions to measure the impact of programmes and practices that have already been implemented in these universities. However, some participants mentioned that the effect of some practices were actually measured, and that there was an evaluation every two or every four years. In their view, there is improvement in the process.

These results agree with the finding of Zhou & Xu (2012). In their comparison, they analysed cases of EE in three universities in China. The

three universities, despite the different approaches to EE, had much in common. They relied upon both classroom learning and co-curricular activities by designing entrepreneurship courses and business plan competitions to involve students in extracurricular entrepreneurial-related activities.

5.3 Discussion of the Extent to which Higher Educational Institutions have Implemented Entrepreneurial Practices

To what extent have HEIs implemented EPs in Palestinian Universities?

In this study, a descriptive statistical analysis was conducted to obtain mean, standard deviation and the degree of application of each practice. Figure 5.2 shows that this assessment was done by ranking the eight dimensions mentioned earlier. These practices were selected to measure the extent to which universities in the WB use different EPs. Based on the summary of the results shown in Figure 5.2, it can be seen that the dimension of EPs that was most often implemented was leadership and governance (72.3%), which is considered to be a high level. This result is consistent with the fact that many universities have redesigned their strategic plan to be closer to achieving their goal of becoming EUs. Also, in the fourth theme, barriers, few universities did not have the support and commitment from the administration to implement EPs. The implementation of entrepreneurial teaching and learning was 70.8%, knowledge exchange and collaboration was 70.7%, the impact of implementing entrepreneurial initiatives on the quality of education was

70.3% and preparing and supporting entrepreneurs was 68.8%. All of these are considered to be a high degree of implementation. There are three dimensions that are considered to be at a medium level of implementing EPs in the universities, namely digital transformation and capability, the internationalised institution and the organisational capacity, i.e. funding, people and incentives, with indices of 67.6, 66.3 and 66%, respectively. That means that the practice that is least often implemented in the universities is organisational capacity, i.e. funding, people and incentives (66.0%). In addition, out of the items in this dimension, the one with the lowest implementation is, incentives and rewards are given to staff who actively support the entrepreneurial agenda, and the second lowest is, entrepreneurial objectives are supported by a wide range of sustainable funding and investment sources.

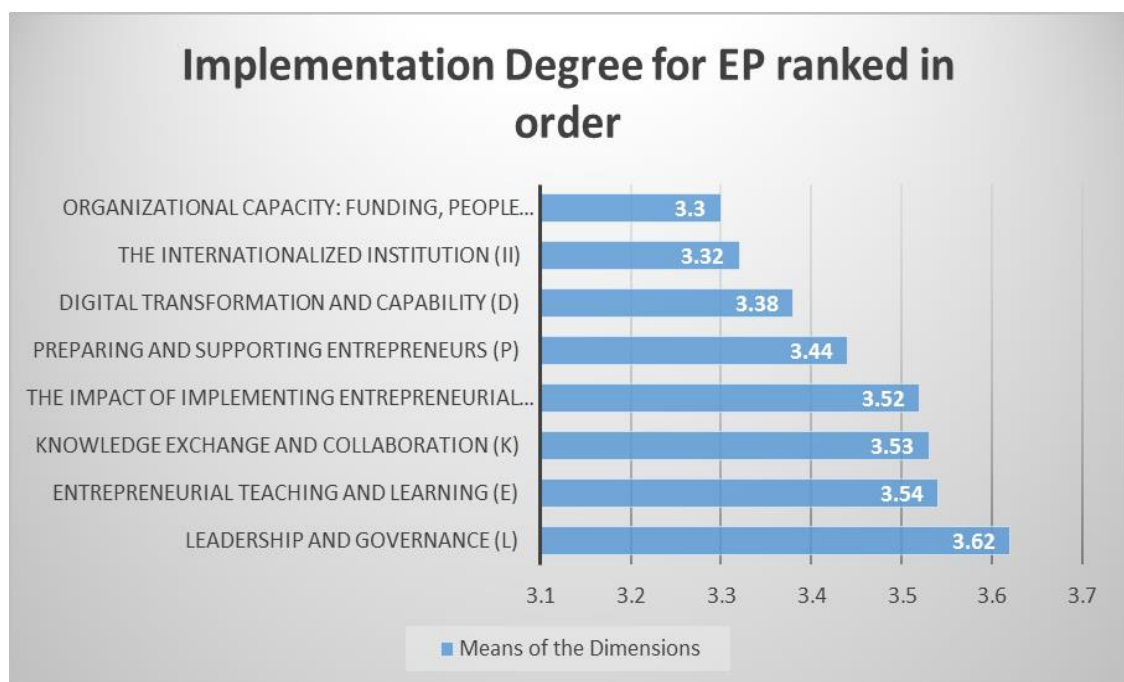


Figure 5.2: Degree of implementation of EPs, ranked in order.

The overall average is 3.46 out of 5.00, which is considered a high level of implementation. This high level of implementation of EPs in Palestinian universities can be demonstrated by examining the status of some of the universities in the study, e.g. one of the Palestinian university, which received two prizes for their EPs. This increased the average for Palestinian universities. In 2017, the university won the Torino Process Award, an international prize for entrepreneurship efficiency, over universities in 29 countries. In 2018, it won Mohammed bin Rashid award for the best university in the Arab world supporting and incubating entrepreneurs and for supporting youth projects. In addition, this university also implemented its strategic plan for entrepreneurial transformation.⁶

When looking at the dimension with the lowest level of implementation, organisational capacity, i.e. funding, people and incentives, this is consistent with the analysis of the interviews that shows that none of the universities offer financial incentives to instructors who participate in implementing the entrepreneurial agenda, but instructors may receive accolades. In addition, there is no budget for entrepreneurship in the universities. Currently, the majority of the available finance is international support from various suppliers, shown in appendix D, e.g. the Belgian development agency (Enabel), KOICA Palestine office, the French scholarship programme and the Italian loan programme.

⁶ <https://www.ppu.edu/p/en/about/President-Welcome>

It can be seen that universities increased awareness through teaching courses on entrepreneurship and encouraging participation in entrepreneurial competitions and workshops. The dimension, the university facilitates access to finance for its entrepreneurs, showed a medium level of implementation (59.4%). This is the lowest percentage in this dimension. This makes sense because five of the universities do not have special budgets for entrepreneurship, as explained in the analysis of the interviews. The dimension that has a medium level of implementation is, training is offered to assist students, graduates and staff in starting, running and growing a business (68.2%). That supports what interviewees said about training, i.e. that training is implemented in different percentages in universities and in different ways, and that some universities faced resistance to this training in the early stages. Interviewees believed that the universities need to implement more training.

The EPs with the lowest rate of implementation is, the university validates entrepreneurial learning outcomes that drive the design and execution of the entrepreneurial curriculum (67.7%). This is considered a medium degree of implementation. In Sultan's (2017) study, which took a sample of 200 respondents from four Palestinian universities, this dimension was ranked low (1.60). He commented on this rank that, 'The concept of enterprising education methods is new in the Palestinian universities; hence, it is not widely practiced'. Regarding the analysis of the interviews in this study, the second theme, practices, explains how business

incubators were established in Palestinian universities over the past three years to support and encourage entrepreneurial activities in the universities, and also how I&E courses were developed during almost the same time period.

The EPs, internationalised institution and digital transformation and capability are considered to have a medium level of implementation. With regard to internationalisation, the result seems logical because the existence of the occupation hinders internationalisation by restricting movement and travel (Bisharat et al., 2020).

In reference to chapter four, as shown in Table 4.12, the Kruskal–Wallis h-test shows that there are statistically significant differences (p -value < 0.05) according to the positions of participants in the degree of implementation of EPs. The same table shows that, of all the dimensions considered, the highest mean score was for staff, according to the responses received, and the lowest mean score was for the alumni. In expect and organisational capacity, i.e. funding, people and incentives, according to the responses, the highest mean score was for students (3.403), and the lowest mean score was for alumni (3.059). This also makes sense because of the fact that instructors are more well informed than students about EPs, especially regarding incentives for instructors. There is requirement to raise students' awareness of entrepreneurship, and to conduct extensive advertising through social media and advertising channels in universities.

The same tests were conducted according to the region of the participants relating to the degree of implementation of EPs, as shown in table 4.16. The results show that all dimensions that have significant differences between the means of the different regions, $p < 0.05$. The highest regional mean was for the south region and the lowest mean score was for the north region, as illustrated in table 4.17. This is consistent with Bisharat's (2020) argument that the entrepreneurial organisations have geographic centralisation and then gradually become less in the subsequent areas. Most of these organisations are concentrated in Ramallah, Hebron, Bethlehem and Jerusalem, followed by Nablus and Jenin. Similarly, Mohtaseb & Hazboun (2018) argue that there are many incubators and centres that encourage and support entrepreneurship in the south of the WB, e.g. Hebron Business Incubator Center, Hebron Chamber of Commerce and Industry, Palestine Polytechnic University business incubator, Bethlehem Business Incubator, Palestinian Child's Home Club and the Entrepreneurs Center. There are also other centres that work in various regions in the south of the WB, e.g. the Palestine Techno Park and Al Nayzak organisation incubator.

Based on the analysis of the results, it was found that the means in all dimensions were higher for females than males, except for knowledge exchange and collaboration, which showed a higher mean in males than in females, as shown in table 4.15. This finding can be explained based on the fact there are many initiatives and centres to support female entrepreneurs, e.g. STEM girls' programme by the Al Nayzak

organisation to strengthen the participation of women in the fields of science and technology. There is also the BWF to strengthen the role of businesswomen as leaders in the Palestinian economy, and the Rural Women's Development Society for empowering and creating a supportive environment for women in their local communities. The literature shows that the female entrepreneurs are motivated more by the need to work than by opportunity (Mohtaseb & Hazboun, 2018), the need to create income and job security (Salameh & Khoury, 2016).

Referring to Appendix E, Table E.2, the results from the Kruskal–Wallis u-test show the differences between the six universities. As shown in table 2, there is a significant difference ($p\text{-value} < 0.05$) in the degree of EP implementation.

5.4. Discussion of Barriers Affecting the Implementation EPs

What are the main barriers to implementing EPs in Palestinian universities?

This question was answered in the fourth question in the interview (Appendix A). As mentioned in chapter two, the road to becoming an entrepreneur is not paved. The interviewees described how the implementation of EPs in universities faces many barriers. They divided these barriers into two categories:

1. National barriers: The general barriers at the national level are faced by almost all the universities in the WB and are divided into four key areas:
 1. Concepts: Because it is a new trend in the WB, there are shortages in many aspects of this subject. Each university has its own definition and perspective of entrepreneurship. There is no specific, agreed-upon definition at the national level. This affects the commitment of all universities to join efforts and coordinate activities.
 2. Finance: There is no sustainable finance for entrepreneurial projects. These projects need to be funded in several stages, starting from seed funding to becoming an independent project. Although the state established the higher council for innovation and excellence to support these projects, there is a lot of bureaucracy in the various stages of supporting, evaluating and funding entrepreneurial projects. The support processes are time consuming and bureaucratic, which is incompatible with the spirit of entrepreneurial work.
 3. Law: There are no laws at the national level regulating entrepreneurial work. The Palestinian business incubators entrepreneurship index recommended that the Ministry of National Economy in Palestine facilitate registration procedures for start-ups, e.g. by reducing registration procedures, making them electronic and reducing registration fees (Bisharat et al., 2020). There are no laws to protect intellectual property and patent rights.

4. National plan: There is no national plan that organises entrepreneurial work at the national level in Palestine to unify efforts, organise implementation and financing, prevent duplication and emphasise the integration of entrepreneurial work. This would help to prevent the emergence of negative competition. The interviews show that this is the main barrier at the national level.

2. Barriers within the University

At the university level, there are many barriers restricting the implementation of entrepreneurial development programmes.

1. Budget: Five of the universities in this study do not have a budget for entrepreneurial activity in the university. Currently, the most readily available finance is international support from various suppliers (Appendix D), e.g. Enabel, KOICA Palestine office, the French scholarship programme and the Italian loan programme.

The disadvantage of external financing is being dependent upon the donor's desires, i.e. what type of start-up they need and what type of support they are offering. The financing issue was mentioned in Palestinian business incubators entrepreneurship index in 2019. The index showed that 70% of incubators are totally dependent on international financing, specifically European, while another 10% depend on incubation returns and 20% depend on the private or domestic sectors (Bisharat et al., 2020).

2. Policies: Although national policies to enact laws in universities to regulate entrepreneurial work efficiently are seen as one of the success factors, most universities do not have policies to control EPs. Entrepreneurship has been included in the vision of some universities, but no real action has been taken to apply this vision, in addition to the high degree of bureaucracy facing entrepreneurs from the government's policies. Supportive policies are needed to encourage entrepreneurial work in universities.
3. Awareness: The awareness of the value of entrepreneurship is still low. In some universities there is resistance to change by both staff and students. Many students still think grades are more important than creative thinking. They work hard to graduate and look for a job and do not have tenacity or risk-taking personalities.
4. Qualified Staff: There is a shortage of qualified staff and entrepreneurs in universities. The interviewees identified the lack of qualified staff as the big barrier at the university level because the instructors lead the students and teach them how to convert their ideas into projects. Therefore, it is necessary to have staff with entrepreneurial experience, as entrepreneurship cannot develop in universities without them.
5. Promotion Criteria: Most of the universities do not consider entrepreneurial projects and activities in their promotion criteria for instructors.

6. Top Management Commitment: Some universities do not have the support and commitment from the administration to implement EPs. The interviewees believed that bureaucracy was the reason for this.
7. Curriculum: Some of the interviewees believed that there is a need for an entrepreneurial curriculum. Interviewees from one university believed that the curriculum in Palestinian universities is similar to the curriculum in famous and prestigious international universities, and that the real need was in the style of education and the qualification of the instructors.
8. Internationalisation: Some interviewees highlighted the need for internationalisation and combining of ideas in some areas, such as knowledge exchange and collaboration. Conversely, others believed that internationalisation is difficult because the competition and the cost of business will be much higher in the global market.

In this study, the awareness of students and staff appeared as the most prominent barrier. Followed by the lack of sustainable financing for entrepreneurial work in universities. There was also a lack of competencies and entrepreneurs in universities to direct the entrepreneurial work in universities. Besides, the absence of policies encourages the development of entrepreneurial work. According Yusoff et al. (2014) mentioned the student soft skill as the highest barrier followed by financing. Then they present the commitment and coordination among support agencies as the second level of the barriers. At the third level, the

bureaucracy comes first then the support from managers. At the last level, they mentioned the staff and students' mentality and the pedagogy. While Hannon (2013) argues the greatest challenge that universities face is how to develop entrepreneurial capacity in their staff and students. Some of the obstacles to entrepreneurship include the lack of awareness of entrepreneurship in higher education, the lack of academic paths for those pursuing entrepreneurship in HEIs and (perhaps the largest) the mindsets of the individuals and the organisational values and culture. It is noticeable some barriers among universities are common but there is a difference in the importance and level of the influence of these barriers. Every university is affected by barriers according to its capabilities and its strengths and weaknesses.

5.5. Discussion of the Impact of the Implementation of Entrepreneurial Initiatives on the Quality of Education

To what extent do implementing entrepreneurial initiatives impact the quality of education in Palestinian universities?

Based on the results of the analysis, it has been found that implementing entrepreneurial initiatives impacts the quality of education in the universities to a large degree in four areas, while the impact is medium in the remaining areas, as shown in Figure 5.3.

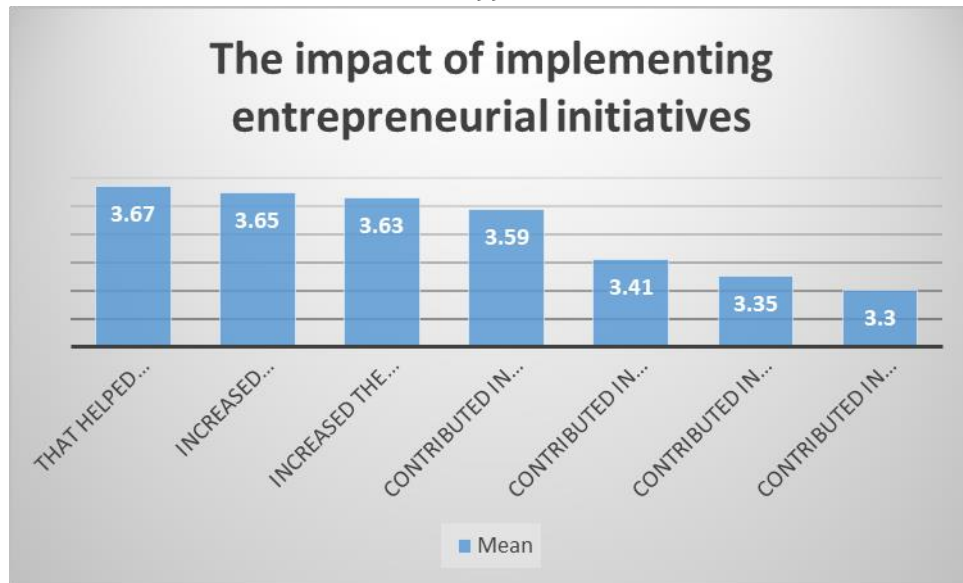


Figure 5.3: The impact of entrepreneurial initiatives on the quality of education.

The implementation of entrepreneurial initiatives in universities has a high impact on each of the following elements, in descending order, according to the degree of their vulnerability to implementing the initiatives:

1. Discovering talented students among college students during their participation in entrepreneurial activities at their universities.
2. Increasing students' entrepreneurial skills, such as entrepreneurial thinking, risk taking, working in a team and creative thinking, and providing them with the necessary expertise for successful entrepreneurial work. This finding support partially the result of Manea et. al (2019)that entrepreneurial skills are influenced by education, but they add that enthusiasm to become an entrepreneur is influenced by education and family support. In this research, we did not address the issue of the family or the student's social environment.

3. Increasing the desire of students to do entrepreneurial work. That agrees closely with Moberg (2021) explains the activities centering on entrepreneurship had a significantly positive impact on the students' entrepreneurial intentions, enterprise creation self-efficacy, entrepreneurial attitudes, and learned knowledge about entrepreneurship.
4. Contributing to the development of I&E courses in universities through the feedback that comes from participants in these initiatives. This can help universities identify what skills they lack and what should be taught in an I&E course.

The implementation of entrepreneurial initiatives in universities also affects the following elements, but at an intermediate level. The elements are arranged in descending order according to the degree to which they are affected by the implementation of these initiatives:

1. Providing entrepreneurial work with the necessary resources and in a suitable environment.
2. Contributing to changing teaching methods and linking them to reality.
3. Contributing to changing the instructor's methods and processes of evaluating the students by using modern methods.

The last component is the least affected by implementing business initiatives in universities, but it is still considered to be affected at an intermediate level (66.0%).

In this study, it seems that the highest impact of implementing entrepreneurial initiatives was to discover talents, followed by developing the skills required for entrepreneurial work and encouraging students to engage in entrepreneurial work. Therefore, the implementation of these initiatives seems like an advertisement and marketing for the entrepreneurial business. Expect that will increase students' efforts and increase their awareness of entrepreneurial work.

5.6 Applying HEInnovate Framework within the Context of Palestine

The HEInnovate was developed to help universities to evaluate which practices need to change and which need to be improved (EC & OECD, 2012). In light of the results of this study, the first dimension, leadership and governance, is implemented at a high level. It was the highest of the eight dimensions. The lowest-ranked dimension was the organisational capacity, i.e. funding, people and incentives. It is noteworthy to mention that the HEInnovate considers organisational capacity to be the ability of the university to support its strategic objectives in the first dimension and to translate the strategy into practice. This means that Palestinian universities need to improve their organisational capacity to meet their strategic plans and to implement their mission statements.

The fourth dimension, preparing and supporting entrepreneurs, is highly ranked. The rank of the first item, the university increases awareness of the value of entrepreneurship and stimulates the entrepreneurial intentions of students, graduates and staff to start a business or venture, will

decrease to a medium ranking. This makes sense because we know that entrepreneurship is a new trend in the WB, and there is a great need to increase awareness of the value of entrepreneurship. The lowest-ranked item in this dimension is, the university facilitates access to financing for its entrepreneurs. This is also consistent with the analysis of the interviews, as there is no sustainable funding for entrepreneurial projects and there are no budgets that are solely to support entrepreneurial activities at universities. The item in the questionnaire that was most often answered with, ‘to a great extent’ and ‘to a very great extent’ is, the university increases awareness of the value of entrepreneurship and stimulates the entrepreneurial intentions of students, graduates and staff to start a business or venture. The statement in the questionnaire that was most often answered with, ‘not at all’ and ‘to a slight degree’ is, the university facilitates access to financing for its entrepreneurs.

The HEInnovate considers the internationalised institution dimension to be vital for a university to be considered an EU. The HEI can be internationalised without I&E but cannot be entrepreneurial without being the internationalised. Based on the study results, the implementation of EPs is highly ranked, but this vital dimension moderates the implementation, meaning that it needs improvement and change. This appears to be a challenge to universities, especially in light of the occupation, which means that any essential matter in the WB must be considered in light of this occupation.

Entrepreneurship Practices in Universities

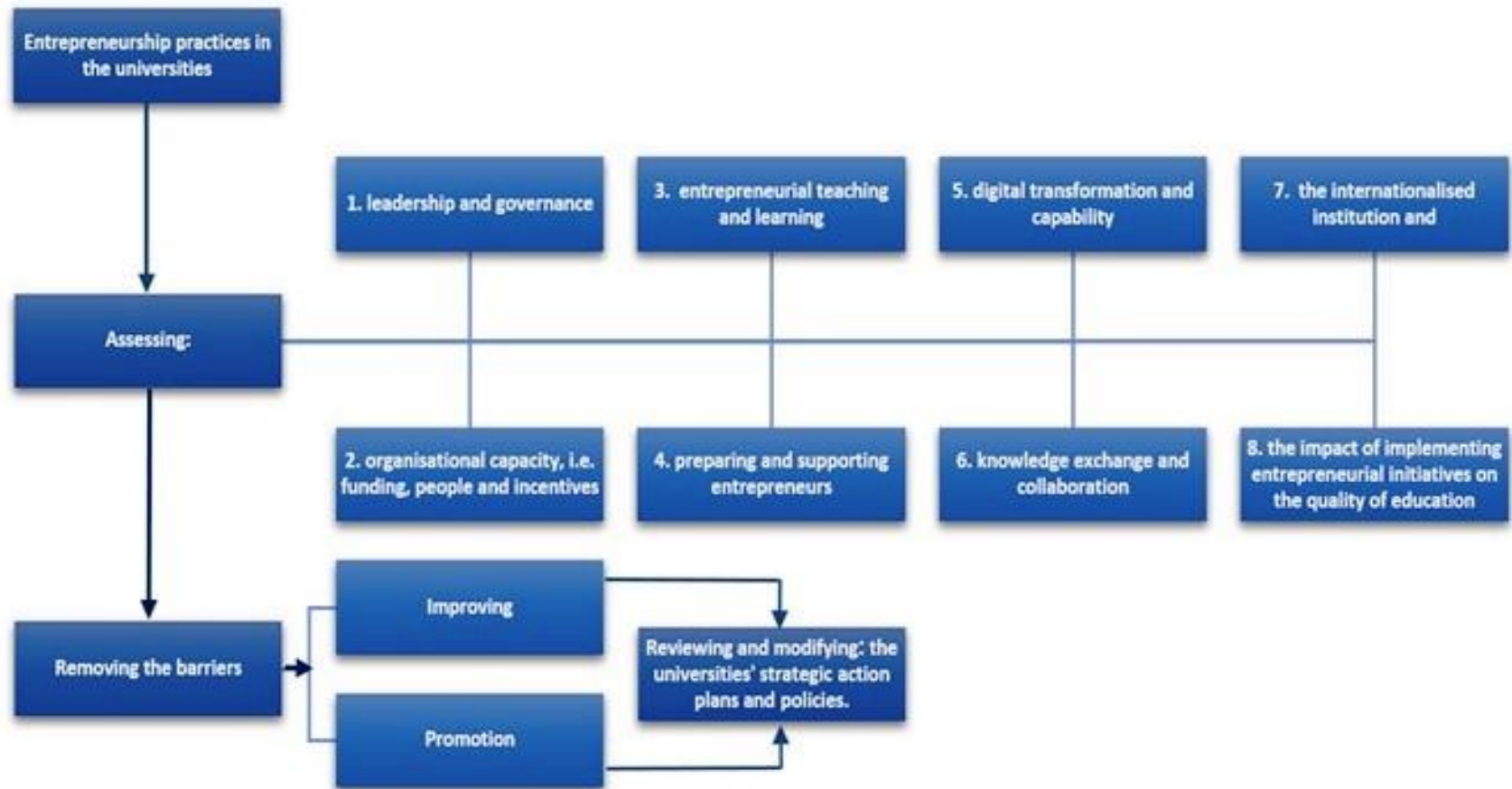


Figure (5.4): Managerial framework for entrepreneurship practices in the universities.

Framework for implementing EPs in the Palestinian Universities (Best Practices)

1. Assessing the current situation

At the beginning, every university interesting in entrepreneurial education need to assess the current situation using HEInovative within 8 dimensions: (1) leadership and governance, (2) organisational capacity, i.e. funding, people, and incentives, (3) entrepreneurial teaching and learning, (4) preparing and supporting entrepreneurs, (5) digital transformation and capability, (6) knowledge exchange and collaboration, (7) the internationalised institution and (8) the impact of implementing entrepreneurial initiatives on the quality of education. To support and guidance in implementing practices that will help them become more entrepreneurial institutions.

2. Removing Barriers hinders implementing EPs

After doing the assessing process and identify areas of strengths and weaknesses, they have to remove the barriers facing developing entrepreneurship in the universities. The key barriers to implementing entrepreneurial activities within the universities like the need for sustainable funding, lack of awareness of the value of entrepreneurship, shortage of qualified staff and entrepreneurs in universities, and weakness of networking with the others ecosystem stakeholders.

The assessing process results will figure out where to improve or to promote the practices after removing the barriers facing developing entrepreneurship in the universities.

3. Promoting

Promoting the current good practices with the highest rank in the universities like leadership and governance, entrepreneurial teaching and learning, preparing and supporting entrepreneurs, knowledge exchange and collaboration, and the impact of implementing entrepreneurial initiatives on the quality of education. Promoting preparing entrepreneurs by increasing the awareness of the value of entrepreneurship and training individuals to run a business. Teaching the students entrepreneurial courses in their first year at the university.

4. Improving

To make real improvements they have to improve the practices with the lowest rank in the universities like organisational capacity, i.e. funding, people and incentives, the internationalised institution, and digital transformation and capability. The organisational capacity in the universities needs real improvement to meet the high-ranked leadership and governance dimension. While some funding is available at the national level, overall sustainable and long-term funding for entrepreneurship activities in HEIs is limited in Palestine, there is a requirement for sustainable and diverse funding resources. For example, the private sector as an alternative to international donors and reinvest

revenues generated from the entrepreneurial projects. In addition to the need for entrepreneurs in the universities by engaging and recruiting individuals with entrepreneurial attitudes, behavior, and experience.

5. Reviewing and modifying plans and policies

The universities need to modify their strategic plans, policies, and action plans in light of the assessment results. A strategy alone is not enough. They need more commitment to funding and investing in entrepreneurial activities. Also, they need to design incentive mechanisms for staff and students to promote and strengthen entrepreneurial practices in the HEI. The universities should invest in staff development because they will be the ones who lead the entrepreneurial works. This investment should reflect on recruiting policies, training programs, rewards, and incentives to who support the entrepreneurial agenda.

Chapter Six

Conclusions and Recommendations

6.1. Overview

The purpose of the study was to assess the elements influencing the EPs in Palestinian HEIs, focusing on eight dimensions. This chapter presents the final study conclusions, which contribute to the literature on entrepreneurship in the context of developing countries.

Qualitative analysis was done on semi-structured interviews that were conducted with experts in entrepreneurship from universities in the WB. Quantitative analysis was done on the questionnaire responses of 276 participants from universities in the WB.

The total mean response to all dimensions of entrepreneurship 3.46 out of 5.00, which is considered a high level of implementation. Therefore, we can say that there is a high level of implementation of EPs in Palestinian universities. Implementing entrepreneurial initiatives in universities has a high impact on discovering talented students. Also, these initiatives increasing students' entrepreneurial skills and increasing the desire to do entrepreneurial work. Besides contributing to the development of I&E courses in universities.

6. 2 Research Conclusions and Contribution

This study contributes to the literature by assessing and discussing EPs at universities in the context of developing countries. The results of the research will help universities to understand the current situation of entrepreneurship and to determine their strengths and weakness. This research highlights the main barriers hindering the implementation of EPs in universities. This investigation has been done by analysing interviews in which experts presented these barriers in the context of Palestinian universities. The key barriers were the lack of sustainable funding for entrepreneurial projects, the absence of a national plan to organise entrepreneurial work in Palestine and the shortage of qualified staff and entrepreneurs in universities. The research investigates to what extent the implementation of entrepreneurial initiatives in universities can be help them to improve the quality of their education.

6. 3 Recommendations

The research has highlighted the importance of entrepreneurial instruction in universities and encourages universities to adopt more EE to achieve benefits at the university and the national level. In uncertain environments, the need for entrepreneurship becomes even greater. Therefore, the study suggests a set of recommendations for Palestinian universities to improve their EPs, especially those practices that gain a high level of implementation, in addition to the EPs discussed with the experts in the interviews.

1. Improve the dimension of organizational capabilities, and focus on it to match the dimension of governance and leadership. It is not sufficient for entrepreneurship to be just a part of the universities' vision and strategic plans. This interest in entrepreneurship must be translated and applied practically by improving the financing of entrepreneurship in universities, allocating various budgets, and financing mechanisms that guarantee sustainability for instance, by diversity their funding. Also encouraging individuals and motivating them to participate in entrepreneurial work. The universities should not ignore the staff who actively work in entrepreneurship but rather work to benefit from these experiences and competencies to the maximum extent possible. The universities can achieve this by rewarding these staff members for their entrepreneurial contributions and by including entrepreneurial projects in promotion criteria, in a similar way in which scientific research is a condition for promotion. Formulating policies that support entrepreneurship work in the universities. For example, employment policies must take entrepreneurial attitudes, behaviours, and experiences into account during the selection process and recruitment criteria.
2. Raising awareness of entrepreneurial work and its importance among students and staff.
3. Collaboration, prevent duplication, reduce the adverse effects of competition between universities and to work in an integrated and cooperative manner under the supervision of this higher specialised

organisation. Creating a database of entrepreneurial projects in the WB will help to achieve this.

4. To provide encouragement and support for talented students through the implementation of entrepreneurial initiatives in Palestinian universities and the adoption of their creative ideas.
5. To strengthen universities' relationships with the private sector by showing these relationships to be mutually beneficial. Involving the private sector in the process of implementing entrepreneurial initiatives will solve the problem of financing and address the needs of the entrepreneurs and not the needs of external donors. This will ensure that entrepreneurial activity refers to international standards but addresses local issues at the same time.
6. To further enhance the role of university business incubators, study their current situation and measure their real impact.
7. Develop a sustainable model for implementing entrepreneurial and innovation-oriented strategies.
8. Develop criteria for systematic evaluation of entrepreneurship in the universities.

6.4 Limitations

This study was conducted in universities in the WB in the academic year 2019/2020, to explore and assess the current status of entrepreneurship in

universities in the WB in three areas, i.e. north, middle and south. There are still many areas to be studied in future research, like Gaza strip and Jerusalem. At this time, given the current political situation, it is difficult to reach these areas of Palestine.

Other limitations are the participants and the sample, which were in the universities (students, staff and alumni), while in the I&E ecosystem there are many stakeholders, such as the government, the industrial sector and the financial sector. In addition, access to the sample was not easy owing to the lack of official statistical data and information about entrepreneurs or participants in entrepreneurial activities at universities in the WB.

6.5 Suggestions for Future Research

To study the status of business incubators in universities, the impact of these incubators on the development of entrepreneurship and the return on investment from projects sponsored by the incubators.

To repeat this study every three years to measure the change and progress in the field of entrepreneurship in Palestinian universities.

To study the impact of entrepreneurship on Palestinian universities from several perspectives, i.e. its impact on education, its impact on the economy and its impact on students' personalities.

To study entrepreneurship in the WB from other partners' perspectives, such as the government, financing institutions and the industrial sector.

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Appendixes

Appendix A

Interview questions (Arabic)

اسئلة المقابلة عن موضوع تنفيذ ممارسات الريادة والابتكار في الجامعات الفلسطينية، ما مدى تنفيذها و ما هي المعوقات:

1. ما هو تعريفكم لريادة الأعمال و التعليم الريادي؟

2. ما هي اهتماماتكم بالمبادرات الريادية؟

3. ما هي أهم المبادرات التي شاركت فيها؟

4. من وجهة نظركم، م الفائدة المرجوة من التعليم الريادي؟

5. ما هي الممارسات التي تعمل على تشجيع الريادة و تنفذ حاليا في الجامعة؟

مثلا: برامج لنيل شهادة جامعية\ تخصص\ مساقات\ مقررات.

المنهاج\ اعضاء الهيئة التدريسية\ البنية التحتية

وجود مراكز متخصصة \ حاضنات \ وحدات تدريب \ مراكز تميز\ مسرعات

برامج توعية \ ميزانية مخصصة\ شراكة \ دعم خارجي \ تعاون دولي

6. ما هي التحديات التي تواجه الجامعات في تنفيذ الممارسات الريادية؟

مثلا: غياب الاستراتيجيات و السياسات\ عدم توفر الدعم من الإدارة\

عدم توفر قاعدة بيانات

حقوق الملكية \ عدم وجود معايير للرجوع اليها

غياب الدعم الدولي \ عدد المدرسين المؤهلين غير كافي

وجود مقاومة لتغير النمط التقليدي إلى ريادي

7. ما هي متطلبات نجاح الريادة من وجهة نظركم؟

مثلا : هل يستدعي الأمر وجود - ثقافة \ رؤية \ بناء فكر قائم على الريادة

آليات تحفيز سياسات مخفضة \ تمويل \ خطة استراتيجية

تفعيل التكنولوجيا في بناء نظام الابتكار و الريادة

تفعيل دور المؤسسات ذات العلاقة

توفير دعم دولي وتعاون دولي

تفعيل دور الحاضنات

توفير المعلومات \ برامج للطلبة و الهيئة التدريسية

8. ما مدى ادراك مفهوم الريادة من قبل الطلبة و الهيئة التدريسية؟

9. ما مدى وعي الطلبة بأهمية الابتكار و الريادة على المستوى الفردي و المحلي؟

10. ما مدى قوة الشراكة بين الجامعة و الشركات وهل هي علاقة بالاتجاهين؟

11. هل هناك حوافز لاعضاء الهيئة التدريسية لإجراء بحوث في مجال الريادة و الابتكار؟

12. هل هناك تقييم دوري لأثر تعليم الريادة و الابتكار ؟

مثلا دراسة توجهات الطلبة قبل و بعد الدورات و الورشات ذات العلاقة.

13. * هل تود إضافة أي اقتراح أو فكرة تعتقد بأهميتها للموضوع ول يتم تناولها في هذه المقابلة؟

14. * هل ترشح شخص اخر تعتقد أنه خبير في هذا المجال في جامعتك أو خلال مشاركتك في المبادرات

الريادية ؟

***** شكرا جزيلا على هذا الوقت وهذه المعلومات القيمة *****

Appendix B

Questionnaire

An-Najah National University

Faculty of Graduate Studies

Engineering Management Program

Dear Respondent,

The researcher is carrying out a study titled, "*Assessing Entrepreneurship Practices at the Palestinian Higher Education Institutions*". As part of partial fulfillment for requirements to obtain a Master degree in Engineering Management; you were selected to be part of the study sample. Therefore I highly appreciate your cooperation to fill out the attached questionnaire according to your own perspective. The study data will be used for research purposes only and it will be kept confidential. You are not requested to write your personal information or anything that denotes it. This questionnaire is divided into three sections; where the first section is the General and Personal Information, the second section contain eight dimensions, and the third section is an open question, it will take approximately 5 minutes.

Thank you for your cooperation

Sherin Tabib

shireentabib@gmail.com

Section 1: General and Personal Information

Answer the flowing questions by filing the space or choice from the multiple options:

Q1. Your gender:

1. Male

2. Female

Q2. Your Academic major:

Q3. Where is your University located?

1. North region

2. Middle region

3. South region

Q4. What is your position in the University?

a. Staff

b. Student

c. Alumni

Q5. What did you take part in any entrepreneurship activity in your University?

1. Workshop
2. Conference
3. Lecture
4. Project
5. Small business creating
6. Research about the subject or graduation project
7. Another activity: -----

Section 2: To assess to what extent entrepreneurship practices at your university are implemented?

Please circle the number that most accurately reflects to what extent your University is implementing the practices mentioned in the following statements.

(Note:1=Not at all, 2= To a slight degree Level, 3=To a moderate extent, 4= To a great extent, 5=To a very great extent)

No.	Statement	Level				
		Not at all	To a slight degree Level	To a moderate extent	To a great extent	To a very great extent
1. Leadership and Governance (L)						
L1	Entrepreneurship is a major part of the University 's strategy					
L2	The university pays great attention to implementing the entrepreneurial agenda					
L3	The University encourages and supports faculties and units to act entrepreneurially.					
2. Organizational Capacity: Funding, People and Incentives (O)						
O1	Entrepreneurial objectives are supported by a wide range of sustainable funding and investment sources.					
O2	The University is open to engaging and recruiting individuals with entrepreneurial attitudes, behavior and experience.					
O3	Incentives and rewards are given to staff who actively support the entrepreneurial agenda.					
3. Entrepreneurial Teaching and Learning (E)						
E1	The University provides diverse formal learning opportunities to develop entrepreneurial mindsets and skills.					
E2	The University provides diverse informal learning opportunities and experiences to stimulate the development of entrepreneurial mindsets and skills.					
E3	The University validates entrepreneurial learning outcomes which drives the design and execution of the entrepreneurial curriculum.					
E4	The University co-designs and delivers the curriculum with external stakeholders					
4. Preparing and Supporting Entrepreneurs (P)						
P1	The University increases awareness of the value of entrepreneurship and stimulates the entrepreneurial intentions of students, graduates and staff to start-up a business or venture.					
P2	The University supports its students, graduates and staff to move from idea generation to business creation					

P3	Training is offered to assist students, graduates and staff in starting, running and growing a business.					
P4	Mentoring and other forms of personal development are offered by experienced individuals from academia or industry.					
P5	The University facilitates access to financing for its entrepreneurs.					
P6	The University offers or facilitates access to business incubation					
5. Digital Transformation and Capability (D)						
D1	The University fosters a digital culture as a mean for innovation and entrepreneurship.					
D2	The University is committed to digital teaching, learning and assessment practices.					
D3	Open science and innovation practices are widespread across the University.					
D4	The University has a dynamic digital presence supporting all its activities.					
6. Knowledge Exchange and Collaboration (K)						
K1	The University demonstrates active involvement in partnerships and relationships with a wide range of stakeholders.					
K2	The University has strong links with incubators, science parks and other external initiatives					
K3	The University provides opportunities for staff and students to take part in innovative activities with business / the external environment.					
7. The Internationalized Institution (II)						
II1	The University explicitly supports the international mobility of its staff and students.					
II2	The University seeks and attracts international and entrepreneurial staff.					
II3	The University develops extensive links with international research networks and innovation clusters					
8. The Impact of Implementing Entrepreneurial initiatives on the Quality of Education (I)						
I1	Implementing Entrepreneurial initiatives contributed in changing teaching methods and linking them to reality more					
I2	Implementing Entrepreneurial initiatives contributed in changing the instructor's methods and processes of evaluation the students, by using the modern methods					
I3	Implementing Entrepreneurial initiatives increased students' entrepreneurial skills, such as the ability to entrepreneurial thinking, take risks, work in a team, and creative thinking					

I4	Implementing Entrepreneurial initiatives that helped discover talented students					
I5	Implementing Entrepreneurial initiatives increased the desire of students to implement entrepreneurial work					
I6	Implementing Entrepreneurial initiatives contributed in the development of the innovation and entrepreneurship courses					
I7	Implementing Entrepreneurial initiatives contributed in providing the necessary resources and suitable environment for entrepreneurial work					

Section 3:

Thank you for your cooperation, and if you have any suggestion, please write it down here

.....

.....

Appendix C

Questionnaire (Arabic language)

استبيان

تقييم ممارسات ريادة الأعمال في مؤسسات التعليم العالي الفلسطيني

جامعة النجاح الوطنية

كلية الدراسات العليا

برنامج الإدارة الهندسية

عزيزي المشارك،

تجري الباحثة دراسة بعنوان "تقييم ممارسات ريادة الأعمال في مؤسسات التعليم العالي الفلسطيني" كجزء من متطلبات استكمال الحصول على درجة الماجستير في الإدارة الهندسية. ولقد تم اختيارك لتكون جزءاً من عينة الدراسة. لذلك أقدر تعاونك لملء الاستبيان المرفق وفقاً لمنظورك الخاص، علماً أنه سيتم استخدام بيانات الدراسة لأغراض البحث العلمي فقط وستبقى سرية، ولا يطلب منك الإدلاء بأي معلومات شخصية أو أي شيء يدل على شخصيتك. هذا الاستبيان ينقسم إلى ثلاثة أقسام: حيث القسم الأول المعلومات العامة والقسم الثاني يتفرع إلى 8 محاور، أما القسم الثالث فهو سؤال مفتوح لتقديم الاقتراحات، وسوف يأخذ من وقتك حوالي 5 دقائق.

شكراً لتعاونكم

الباحثة: شيرين طيب

shireentabib@gmail.com

القسم الأول: المعلومات العامة

الرجاء الإجابة عن الأسئلة التالية عن طريق ملء الفراغ أو الاختيار من خيارات متعددة:

السؤال الأول: الجنس ؟

1. ذكر

2. أنثى

السؤال الثاني: التخصص الأكاديمي ؟

السؤال الثالث: في أي منطقة تقع جامعتك ؟

1. المنطقة الشمالية

2. المنطقة الوسطى

3. المنطقة الجنوبية

السؤال الرابع: ما هي وظيفتك الحالية بالنسبة للجامعة؟

1. موظف أو أكاديمي

2. طالب

3. خريج

السؤال الخامس: يرجى تحديد مشاركتك في النشاطات الريادية في الجامعة؟

ورشة عمل

مؤتمر

محاضرة

انشاء مشروع صغير

مشروع تخرج عن موضوع الريادة

نشاط آخر، حدده -----

القسم الثاني : يهدف هذا القسم إلى تقييم إلى أي مدى تم تنفيذ ممارسات ريادة الأعمال في جامعتك ؟

يرجى وضع دائرة على الخيار الذي يعكس بشكل دقيق إلى أي مدى جامعتك تنفذ الممارسات المذكورة في العبارات التالية .

ملاحظة: 1 = ليس على الإطلاق ، 2 = إلى درجة بسيطة ، 3 = إلى حد معتدل ، 4 = إلى حد كبير ، 5 = إلى حد كبير جدا

كبير جدا

الرقم	البيان	المستوى	إلى حد بسيط	إلى حد معتدل	إلى حد كبير	إلى حد كبير جدا
أولا - القيادة و الحوكمة (٠٠٠)						
L1	تعد ريادة الأعمال من الأجزاء الأساسية في استراتيجية الجامعة					
L2	تولي الجامعة اهتمام كبير لتنفيذ أجندة ريادة الأعمال					
L3	تشجع الجامعة الكليات والمراكز للعمل على دعم ريادة الأعمال					
ثانيا - الامكانيات التنظيمية: التمويل والأشخاص والحوافز (٠٠٠)						
O1	تسعى الجامعة لتوفير مصادر التمويل والاستثمار المستدامة لدعم ريادة الأعمال					
O2	تعمل الجامعة على استقطاب ذوي الكفاءات والخبرة في العمل الريادي وايضا اصحاب السلوك والتوجه الريادي					
O3	تعطي الجامعة حوافز و مكافآت للمساهمين مساهمة فعالة في دعم أجندة ريادة الأعمال في الجامعة					
ثالثا - الريادة في التدريس والتعلم (٠٠)						
E1	تهتم الجامعة لتعزيز المهارات الريادية في التعليم					
E2	تسعى الجامعة لتضمين الاعمال الريادية ضمن الانشطة الطلابية					
E3	تعمل الجامعة على تقييم مخرجات التعلم الريادي لتطوير مناهج ريادة الأعمال					
E4	تسعى الجامعة لتصميم مناهج ريادة الاعمال بالشاركة مع الأطراف الخارجية المعنية					
رابعا - إعداد ودعم رواد الأعمال (٠٠)						
P1	تعمل الجامعة على رفع الوعي بأهمية ريادة الأعمال وتحفيز التطلعات الريادية للطلاب والخريجين والعاملين لإنشاء أعمالهم الخاصة					
P2	تدعم الجامعة الطلاب والخريجين والعاملين في المضي من توليد الأفكار إلى استحداث الأعمال					
P3	تقدم دورات تدريبية لمساعدة الطلاب والخريجين والعاملين في تأسيس عملهم وإدارته وتنميته					
P4	تقدم الاستشارات من قبل خبراء من المجال الأكاديمي أو القطاع الخاص					
P5	تقوم الجامعة بدعم وتمويل المشاريع الريادية					
P6	توفر الجامعة وتيسر فرص الاستفادة من حاضنات الأعمال					
خامسا: التحول الرقمي والقدرة (٠٠)						
D1	تعزز الجامعة الثقافة الرقمية كوسيلة للابتكار وريادة الأعمال.					
D2	تلتزم الجامعة باستخدام الرقمية في ممارسات التعليم والتعلم وعملية التقييم ايضا.					
D3	تحرص الجامعة على تنفيذ فعاليات وانشطة الابتكارات العلمية بشكل مستمر					
D4	تستخدم الجامعة الأدوات الرقمية في جميع مناسباتها وانشطتها مثلا في اتصالها مع الطلاب والعاملين والشركاء الخارجيين.					

سادسا - تبادل المعرفة والتعاون (K)					
					K1 تحرص الجامعة على بناء شبكات تعاون و تبادل معرفة على المستوى الأكاديمي مع القطاع العام و المجتمع
					K2 تمتلك الجامعة روابط قوية مع حاضنات الأعمال وواحات العلوم والمبادرات الخارجية الأخرى
					K3 توفر الجامعة فرص للعاملين والطلاب للمشاركة في الأنشطة الابتكارية للشركات الخارجية
سابعا - تدويل المؤسسات التعليمية (II)					
					II1 تدعم الجامعة وتسهل حركة التنقل الدولي لموظفيها وطلابها لغرض دعم النشاطات الريادية من خلال برامج التبادل، والمنح الدراسية، وبرامج الزمالة ومنح التدريب
					II2 تعمل الجامعة على استقطاب العاملين الدوليين ورواد الأعمال
					3II تنشأ الجامعة روابط قوية مع شبكات البحث الدولية والمجموعات الابتكارية
ثامنا - تأثير تنفيذ المبادرات الريادية على جودة التعليم (I)					
					I1 تنفيذ المبادرات الريادية في الجامعة ساهم في تغيير اساليب التدريس وربطها بالواقع بشكل أكبر
					I2 تنفيذ المبادرات الريادية في الجامعة ساهم في تغيير اساليب تقييم المدرسين للطلاب واستخدامهم الاساليب الحديثة
					I3 تنفيذ المبادرات الريادية في الجامعة زاد من مهارات الطلاب الريادية مثل القدرة على التفكير الريادي و تحمل المخاطر و العمل ضمن فريق و التفكير الابداعي
					I4 تنفيذ المبادرات الريادية في الجامعة ساهم باكتشاف الطلبة الموهوبين
					I5 تنفيذ المبادرات الريادية في الجامعة زاد من الرغبة لدى الطلبة لتنفيذ الاعمال الريادية
					I6 تنفيذ المبادرات الريادية في الجامعة ساهم في تطوير مساق الابتكار والريادة
					I7 تنفيذ المبادرات الريادية في الجامعة ساهم في توفير البيئة و المصادر اللازمة للعمل الريادي
<p>القسم الثالث: شكراً جزيلاً لتعاونكم ، وإذا كان لديك أي اقتراح، يرجى كتابته هنا.....</p>					

Appendix D

List of contact information for entrepreneurship institutions, start-up business and operating: (source: Abu Hashhash, 2016)

ملحق 4: قائمة معلومات التواصل للمؤسسات الريادة وتأسيس الأعمال والتشغيل

اسم المؤسسة	الموقع الجغرافي	الهاتف	الموقع الإلكتروني
جهات حكومية (1)			
المجلس الأعلى للإبداع والريادة	رام الله، ضاحية الريحان	02-2820016	http://www.hcie.ps/
الجهات التي تقدم خدمات الاحتضان المبتكر (6)			
حاضنة الريادة والتميز "إبداع" - الكلية الأهلية	بيت لحم، مقر الكلية الأهلية	0599829221	
مركز نجاد زعني للتميز في تكنولوجيا المعلومات - جامعة بيرزيت*	رام الله، جامعة بيرزيت	02-2982072	http://sites.birzeit.edu/nzitec/
جامعة البوليتكنيك - مركز تميز	الخليل، جامعة البوليتكنيك	02-2233050 02-2230068	https://www.ppu.edu/p/ar#about
إبداع - جامعة النجاح الوطنية، الجامعة العربية الأمريكية، جامعة القدس، جامعة البوليتكنيك**	نابلس، جامعة النجاح الوطنية	0598903728	http://www.ibdaa.ps/arabic.php
مركز حسيب الصباح - الجامعة العربية الأمريكية	جنين، مقر الجامعة العربية الأمريكية	04-2520801	http://www.aauj.edu/?q=ar/node/84
المعهد الكوري - جامعة النجاح الوطنية	نابلس، جامعة النجاح الوطنية	09-2345113 ext. 2416	http://knitit.najah.edu/Arabic/
الجهات التي تقدم خدمات الاحتضان (9)			
الحاضنة الفلسطينية لتكنولوجيا المعلومات والاتصالات - بيكني	رام الله غزة	02-2971946 08-2840804	http://www.picti.ps/
حاضنة أعمال بادر	رام الله	02-2409108	http://www.bader.ps/
حاضنة "صنع في فلسطين" - مؤسسة النيزك	رام الله	02-2989513	http://www.alnavzak.org/ar-made-in-palestine
حاضنة بيت لحم للأعمال - BBI	بيت لحم	0592012653	http://www.bbi.ps/
حاضنة أعمال بلدية الخليل	الخليل	0595555771	http://www.hebron-city.ps/ar_nage.aspx?id=XuDXaUa2451715728aXuDXaU
حاضنة أعمال غرفة تجارة وصناعة الخليل	الخليل	02-2228218	http://www.hebroncci.org/ar/
كلية الدراسات المتوسطة - جامعة الأزهر - قطاع غزة	غزة، جامعة الأزهر	08-2824020	http://cis.edu.ps/arabic/Default.aspx
حاضنة مبادرون لريادة الأعمال	غزة، الجامعة الإسلامية	08-2860700 داخلي 1196	http://www.mobaderoon.ps/ar/index.php
حاضنة "يوكاس" التكنولوجية	غزة، الكلية الجامعية للعلوم التطبيقية		http://ucasti.ps/
الجهات التي تقدم خدمات تسريع الأعمال (3)			
مسرعة "Fastforward" - مؤسسة "leaders"	رام الله	02-2972930	http://www.leaders.ps/the-fastforward-accelerator-program/
مؤسسة الريادي العربي	رام الله	02-2977767	http://www.arabreneur.com/
Glow	رام الله	0599225092	http://glow.ps/single/mentors/
صناديق الاستثمار (4)			
صندوق سراج - مجموعة مسار العالمية	رام الله	02-2409108	http://www.siraj.ps/
صندوق شراكات - صندوق الاستثمار الفلسطيني	رام الله	02-2969600	http://ar.sharakat.ps/wordings/sharakat-fund-main/
صندوق صدارة***	رام الله	526284400	http://sadaravc.com/
صندوق ابتكار***	رام الله	0597916161	http://ibtikarfund.com/
مشاريع ممولين في مجال ريادة الأعمال (2)			
مشروع بصيص - الوكالة البلجيكية للتنمية***	رام الله		https://www.bicctb.org/en/countries/palestine

اسم المؤسسة	الموقع الجغرافي	الهاتف	الموقع الإلكتروني
برنامج دعم الشركات الناشئة الفلسطينية (PASS) - الوكالة الكورية للتعاون الدولي	رام الله	02-2977045	http://www.koica.go.kr/english/main.html
مشاريع دعم شركات القطاع الخاص (5)			
برنامج المنحة الفرنسية	القدس	02-5828995	http://www.mne.gov.ps/image/frenchDOC260315.pdf
برنامج القرض الإيطالي	القدس	02-5327447	http://www.itcoop-ier.org/en/content/italian-credit-line-program-support-palestinian-smes
مشروع "Compete" - الوكالة الأمريكية للتنمية	رام الله	02-2988530	http://www.compete.project.ps/
قطر الخيرية مشروع طاقات - قطاع غزة	غزة		http://www.taqat.ps/aboutus
اتحاد شركات أنظمة المعلومات الفلسطينية (بيتا)	رام الله غزة	02-2958447/5 08-2881110	http://www.pita.ps/
صناديق ضمان القروض (2)			
الصندوق الأوروبي الفلسطيني لضمان القروض	رام الله	02-2400330 02-2400327	http://www.csf-palestine.com/
مبادرة الشرق الأوسط للاستثمار	رام الله	02-2422036	http://www.mciinitiative.org/
الجهات التي تقدم خدمات تأسيس ودعم المشاريع الصغيرة والمتوسطة والأنشطة المدرة للدخل والتشغيل الذاتي (6)			
جمعية مركز المؤسسات الصغيرة - sec	رام الله غزة	02-2423326 02-2884541	http://www.sec-pal.org/
الهيئة الاستشارية الفلسطينية لتطوير المؤسسات الأهلية	جنين	04-2501989	http://pccs-palestine.org/
مؤسسة فلسطين للتنمية - صندوق الاستثمار الفلسطيني	رام الله	02-2950567/8	http://www.pif.ps/psdf
ملتقى سيدات الأعمال	رام الله	02-2425612/3	http://www.bwf.ps/index.php/en/
المركز العربي للتطوير الزراعي - أكاد	رام الله	02-2960390/2/1	http://acad.ps/arabic.php
جمعية المركز التنموي للمرأة الفلسطينية	طولكرم	09-2675835	
برامج التوظيف			
الجهات التي تقدم التشغيل المؤقت والتدريب على مهارات سوق العمل والتشبيك مع أصحاب العمل (التدريب على رأس العمل) (19)			
مؤسسة التعليم من أجل التوظيف	رام الله	02-2989405	http://www.pefc.ps/?Lang=2
مؤسسة "آرب أميري كير"	رام الله	0597266919	http://arabamericare.org/
منتدى شارك الشبابي	رام الله	02-2967741	http://sharek.ps/en/1/
مركز أبحاث الأراضي	الخليل	02-2217239	http://www.lraci.org/
مؤسسة الشباب الدولية	رام الله	02-2985512	http://www.jyfine.org/country/palestine
مؤسسة الأفق الشبابية	رام الله	02-2984161/2	http://www.alofon.org/
جمعية التنمية المجتمعية والتعليم المستمر	بيت لحم، جامعة الكلية الأهلية	02-2775030 02-2751566	http://www.cdce-i.org/en/
جهود للتنمية المجتمعية والريفية	رام الله	02-2811629	http://www.juhoud.ps/en/
جمعية أسنقاء جامعة بيرزيت	رام الله	02-2959247	http://bzufap.bzu.ifa.ps/
الاتحاد العام للفلاحين - غزة			
مركز التجارة الفلسطيني - بالتزويد - قطاع غزة	رام الله غزة	02-2408383 08-2833539	https://www.paltrade.org/ar_SA
الإغاثة الزراعية (ضفة غربية وقطاع غزة)	رام الله غزة	02-2963840 08-2805040/2	http://www.nal-arc.org/
اتحاد العمال - قطاع غزة			
جمعية الخريجات الجامعيات	غزة	02-2875918	
اتحاد المقاولين الفلسطينيين - قطاع غزة	رام الله	02-2961330/1	http://www.ncu.ps/

اسم المؤسسة	الموقع الجغرافي	الهاتف	الموقع الإلكتروني
	غزة	08-2823119	
ميرسي كور، برنامج قطاع تكنولوجيا المعلومات - قطاع غزة	غزة		http://www.mercycorps.org/countries/west-bank-and-gaza
جمعية إنقاذ المستقبل الشبابي - قطاع غزة	غزة	08-2820092	https://www.syfpa.org/arabic/
مؤسسة إنقاذ الطفل (Save The Children) - قطاع غزة	غزة		https://ort.save-the-children.net/
جمعية الوداد للتأهيل المجتمعي - قطاع غزة	غزة	08-2641955	http://www.elwedad.org/
برامج توظيف تتلذ من قبل ممولين (5)			
مؤسسة صلتك	رام الله	0599666670	http://www.silatech.com/
مؤسسة التعاون	رام الله	02-2415130	http://www.taawon.org/ar
الوكالة البلجيكية للتنمية - مشروع دعم بناء قدرات مؤسسات التعليم والتدريب المهني والتقني	رام الله		https://www.bicctb.org/en/countries/palestine
جمعية اتحاد الكنائس - مجلس كنائس الشرق الأوسط - دائرة خدمة اللاجئين الفلسطينيين	غزة		
وكالة التعاون الألماني - برنامج التعليم المهني والتقني وسوق العمل	رام الله	02-2400740	https://www.viz.de/en/worldwide/379.html http://www.tvct-pal.org/
برامج توظيف القطاع الخاص (5)			
برنامج رواد - البنك العربي	رام الله	02-2982549	http://www.arabbank.ps/ar/careers/care.aspx
برنامج التشغيل المؤقت - بنك فلسطين	رام الله	02-2946700	https://www.bankofpalestine.com/job_app/job https://www.bankofpalestine.com/ar
برنامج مبارك - مجموعة مزار الدولية	رام الله	0592951609	http://www.massar.com/
برنامج تميز - شركة باديكو القابضة	رام الله	02-2948222 /3	http://www.tamayyaz.ps/ar/
برامج مجموعة الاتصالات	رام الله	02-2944019 02-2944016	http://www.naltelecom.ps/index.php?main=1&mid=1
برامج تشغيل الأشخاص ذوي الإعاقة (7)			
جمعية بيت لحم العربية للتأهيل	بيت لحم	02-2744050 /1	http://www.basr.org/en/
جمعية الأمل الخيرية للصم	قلقيلية	09-2940627	
جمعية رعاية الكفيف	نابلس	09-2372912	
جمعية نجوم الأمل لتمكين النساء ذوات الإعاقة	رام الله	02-2422345	http://starsofhope.org/en/
برنامج التأهيل - جمعية الشبان المسيحية	رام الله	02- 2772713	http://www.bcmrhc.ps/organization/65
منظمة الإعاقة الدولية "هاندي كاب" - قطاع غزة	غزة		http://www.handicap-international.us/tags/palestinian_territories
جمعية الأمل لتأهيل المعاقين - قطاع غزة	رفح	08-2136779 0599417161	http://www.elamal.ps/ar/index.html
برامج التخفيف من الفقر (5)			
برنامج الأمم المتحدة الإنمائي - برنامج التمكين الاقتصادي للأسر المحرومة-DEEP	القدس	02-6268200	http://www.ps.undp.org/
وكالة غوث وتشغيل اللاجئين - برنامج العمل مقابل المال	رام الله	02-5890419	http://www.unrwa.org/ar
الإغاثة الإسلامية - قطاع غزة	غزة		http://iraal.ps/ar/
جمعية عايشة لحماية المرأة والطفل - قطاع غزة	غزة	08-2888522 97951915 059	http://www.aisha-pal.ps/ar
جمعية النجدة الاجتماعية - قطاع غزة	غزة	08-2862559	

Appendix E

Additional tables of statistical analysis

Table (E1): Characteristics of the universities and the role of the interviewee

No.	Geographical	The university	Interviewee Job role	Another role
1.	South Palestine	University A	President of the University	Member in the Board <u>at</u> HCIE / Entrepreneur
2.	South Palestine	University A	Instructor of entrepreneurship and innovation courses	Public Relations Director
3.	South Palestine	University A	Vice President for Planning and Development in university	
4.	South Palestine	University E	Director of Innovation and Entrepreneurship Unit	Manager of Business Incubators
5.	North Palestine	University B	Vice President for Planning and Development in university	
6.	North Palestine	University B	Instructor of entrepreneurship and innovation courses	
7.	North Palestine	University B	Director of Innovation and Entrepreneurship Unit	Instructor of entrepreneurship and innovation courses
8.	North Palestine	University F	Director of Innovation and Entrepreneurship Unit	Managers of Business Incubators
9.	North Palestine	University B	Instructor of entrepreneurship and innovation courses	Former Dean of Planning, Development and Quality
10.	Middle Palestine	University C	Researcher in the field of Innovation and Entrepreneurship in Palestine	Business Administration Master Program Director
11.	Middle Palestine	University C	Director of Innovation and Entrepreneurship Unit	Manager of Business Incubators
12.	Middle Palestine	University D	Director of Innovation and Entrepreneurship Unit	Manager of Business Incubators \ Member <u>at</u> HCIE
13.	South Palestine		Member in the Board <u>at</u> HCIE	President of a University
14.	north Palestine		Member in the Board <u>at</u> HCIE	Entrepreneur

Table (E2): test equality of means test among Universities using Kruskal-Wallis Test

	University	Mean Rank	Chi-square	df	Asymp. Sig.
1. Leadership and Governance (L)	A	3029.40	371.049	5	0.000
	E	2713.85			
	F	1666.24			
	B	2082.85			
	D	2321.53			
	C	2333.24			
	Total				
2. Organizational Capacity: Funding, People and Incentives (O)	A	2995.55	354.440	5	0.000
	E	2674.24			
	F	1432.64			
	B	2231.83			
	D	2444.99			
	C	2393.29			
	Total				
3. Entrepreneurial Teaching and Learning (E)	A	3016.66	366.395	5	0.000
	E	2579.95			
	F	1487.26			
	B	2099.94			
	D	2516.34			
	C	2384.97			
	Total				
4. Preparing and Supporting Entrepreneurs (P)	A	3111.25	492.183	5	0.000
	E	2419.97			
	F	1522.28			
	B	1995.22			
	D	2293.66			
	C	2344.31			
	Total				
5. Digital Transformation and Capability (D)	A	2985.82	283.325	5	0.000
	E	2601.92			
	F	1698.96			
	B	2294.33			
	D	2334.50			
	C	2406.35			
	Total				
6. Knowledge Exchange and	A	2834.06	180.135	5	0.000

Collaboration (K)	E	2923.95			
	F	1832.71			
	B	1995.86			
	D	2591.42			
	C	2507.06			
	Total				
7. The Internationalized Institution (II)	A	2753.99	47.454	5	0.000
	E	2738.03			
	F	2233.24			
	B	2298.74			
	D	2670.80			
	C	2576.43			
	Total				
8. The Impact of Implementing Entrepreneurial initiatives on the Quality of Education (I)	A	2811.74	157.527	5	0.000
	E	2862.16			
	F	1707.43			
	B	2452.56			
	D	2302.01			
	C	2587.61			
	Total				

As shown in table (2) the results from the Kruskal-Wallis U test indicate which of the six universities differ from one another.

Table (E3): Sample distribution

		Count	Column N %
Gender	Male	131	47.5%
	Female	145	52.5%
	Total	276	100.00%
University	A	73	26.4%
	E	31	11.2%
	F	36	13.0%
	B	36	13.0%
	D	38	13.8%
	C	62	22.5%
	Total	276	100.00%
position	Staff	52	18.8%
	Student	144	52.2%
	Alumni	80	29.0%
	Total	276	100.00%

Table (E4): Validity Statistics

Indicators		Pearson Correlation	Sig. (2-tailed)
Entrepreneurship is a major part of the University 's strategy	Leadership and Governance (L)1	.645**	0.000
The university pays great attention to implementing the entrepreneurial agenda	Leadership and Governance (L)2	.740**	0.000
The University encourages and supports faculties and units to act entrepreneurially.	Leadership and Governance (L)3	.790**	0.000
Entrepreneurial objectives are supported by a wide range of sustainable funding and investment sources.	Organizational Capacity: Funding, People and Incentives (O)1	.747**	0.000
The University is open to engaging and recruiting individuals with entrepreneurial attitudes, behavior and experience.	Organizational Capacity: Funding, People and Incentives (O)2	.753**	0.000
Incentives and rewards are given to staff who actively support the entrepreneurial agenda.	Organizational Capacity: Funding, People and Incentives (O)3	.632**	0.000
The University provides diverse formal learning opportunities to develop entrepreneurial mindsets and skills.	Entrepreneurial Teaching and Learning (E)1	.781**	0.000
The University provides diverse informal learning opportunities and experiences to stimulate the	Entrepreneurial Teaching and Learning (E)2	.751**	0.000

development of entrepreneurial mindsets and skills.			
The University validates entrepreneurial learning outcomes which drives the design and execution of the entrepreneurial curriculum.	Entrepreneurial Teaching and Learning (E)3	.731**	0.000
The University co-designs and delivers the curriculum with external stakeholders	Entrepreneurial Teaching and Learning (E)4	.733**	0.000
The University increases awareness of the value of entrepreneurship and stimulates the entrepreneurial intentions of students, graduates and staff to start-up a business or venture.	Preparing and Supporting Entrepreneurs (P)1	.763**	0.000
The University supports its students, graduates and staff to move from idea generation to business creation	Preparing and Supporting Entrepreneurs (P)2	.789**	0.000
Training is offered to assist students, graduates and staff in starting, running and growing a business.	Preparing and Supporting Entrepreneurs (P)3	.706**	0.000
Mentoring and other forms of personal development are offered by experienced individuals from academia or industry.	Preparing and Supporting Entrepreneurs (P)4	.771**	0.000
The University facilitates access to financing for its entrepreneurs.	Preparing and Supporting Entrepreneurs (P)5	.682**	0.000
The University offers or facilitates access to business incubation	Preparing and Supporting Entrepreneurs (P)6	.736**	0.000
The University fosters a digital culture as a mean for innovation and entrepreneurship.	Digital Transformation and Capability (D)1	.791**	0.000
The University is committed to digital teaching, learning and assessment practices.	Digital Transformation and Capability (D)2	.744**	0.000
Open science and innovation practices are widespread across the University.	Digital Transformation and Capability (D)3	.741**	0.000
The University has a dynamic digital presence supporting all its activities.	Digital Transformation and Capability (D)4	.735**	0.000
The University demonstrates active involvement in partnerships and relationships with a wide range of stakeholders.	Knowledge Exchange and Collaboration (K)1	.772**	0.000
The University has strong links with incubators, science parks and other external initiatives	Knowledge Exchange and Collaboration (K)2	.705**	0.000

The University provides opportunities for staff and students to take part in innovative activities with business / the external environment.	Knowledge Exchange and Collaboration (K)3	.696**	0.000
The University explicitly supports the international mobility of its staff and students.	The Internationalized Institution (II)1	.672**	0.000
The University seeks and attracts international and entrepreneurial staff.	The Internationalized Institution (II)2	.649**	0.000
The University develops extensive links with international research networks and innovation clusters	The Internationalized Institution (II)3	.739**	0.000
Implementing Entrepreneurial initiatives contributed in changing teaching methods and linking them to reality more	. The Impact of Implementing Entrepreneurial initiatives on the Quality of Education (I)1	.768**	0.000
Implementing Entrepreneurial initiatives contributed in changing the instructor's methods and processes of evaluation the students, by using the modern methods	. The Impact of Implementing Entrepreneurial initiatives on the Quality of Education (I)2	.730**	0.000
Implementing Entrepreneurial initiatives increased students' entrepreneurial skills, such as the ability to entrepreneurial thinking, take risks, work in a team, and creative thinking	. The Impact of Implementing Entrepreneurial initiatives on the Quality of Education (I)3	.799**	0.000
Implementing Entrepreneurial initiatives that helped discover talented students	. The Impact of Implementing Entrepreneurial initiatives on the Quality of Education (I)4. The Impact of Implementing Entrepreneurial initiatives on the Quality of Education (I)5	.737**	0.000
Implementing Entrepreneurial initiatives increased the desire of students to implement entrepreneurial work	. The Impact of Implementing Entrepreneurial initiatives on the Quality of Education (I)6	.783**	0.000
Implementing Entrepreneurial initiatives contributed in the	. The Impact of Implementing	.757**	0.000

development of the innovation and entrepreneurship courses	Entrepreneurial initiatives on the Quality of Education (I)7		
Implementing Entrepreneurial initiatives contributed in providing the necessary resources and suitable environment for entrepreneurial work	. The Impact of Implementing Entrepreneurial initiatives on the Quality of Education (I)8	.742**	0.000

Appendix F

List of the experts name who reviewed the questionnaire to ensure the content validity ordered alphabetically

1. **Dr. Fathi Anaya**, Assistant Professor, College of Engineering and Technology, Palestine Technical University – Kadoorie (PTUK). He is teaching new course in PTUK entitled "From Idea to Startup" as an optional course, in cooperation with IIT University in the United States of America.
2. **Dr. Nidal Dwaikat**, Assistant Professor, department of Industrial Engineering, An-Najah National University, Nablus, Palestine. He is the Vice President for Planning, Development and Quality Assurance at An-Najah National University. Dr. Nidal was the first one to design the entrepreneurship and innovation course at An-Najah National University.⁷
3. **Dr. Rabee M.A Shurafa**. Assistant professor – Palestine Technical University- Kadoorie. Trainer, SPSS Analytical Software & Structural Partial Least Square Path Modeling (SmartPLS 3). Trainer, Quantitative Research Method for Ph.D. Candidates.
4. **Dr. Rani Shahwan** is an assistant professor of Strategy and Business Model Innovation at An-Najah National University. Director of the Korean-Palestinian IT Institute of Excellence and the Continuing Education Unit and university students.

⁷ <https://staff.najah.edu/ar/profiles/3092/>

5. Dr. Suhail Sultan, an assistant professor of business administration at Birzeit University, who directs Birzeit University's master's program in business administration. Dr. Suhail Sultan represented Palestine in Vienna at the International Conference on Entrepreneurship held at UNIDO Headquarters on November 11-13, 2014. In addition, he conducted a research titled "Moving from a traditional into an entrepreneurial university: Evidencing from Palestine".

6. Dr. Yahya Saleh, an Associate Professor of Industrial Engineering at the Department of Industrial Engineering, An-Najah National University. He was the director of An-Najah Business Innovation and Partnerships Center (NaBIC) from 2012-2020.

جامعة النجاح الوطنية

كلية الدراسات العليا

تقييم ممارسات الريادة في مؤسسات التعليم العالي الفلسطيني

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قدمت هذه الأطروحة استكمالاً لمتطلبات الحصول على درجة الماجستير في الإدارة الهندسية،
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الملخص

في الآونة الأخيرة تم الاعتراف على نطاق واسع بريادة الأعمال كعامل حيوي للنمو الاقتصادي من خلال زيادة العمالة والإنتاجية والابتكار وتحسين الرفاهية الاجتماعية. لذا تتبنى مؤسسات التعليم العالي (HEIs) في جميع أنحاء العالم ريادة الأعمال باعتبارها ضرورية لمهمتها ودورها في مجتمعاتها. في فلسطين نفذت معظم مؤسسات التعليم العالي تقريباً العديد من مبادرات ريادة الأعمال لإعداد طلابها لمشاريع تجارية من أجل زيادة قدرتهم التنافسية في سوق العمل محلياً وعالمياً. لذلك فإن الهدف الرئيسي من هذه الدراسة هو تقييم ممارسات ريادة الأعمال (EPs) في مؤسسات التعليم العالي الفلسطينية من خلال ثمانية أبعاد تشمل: القيادة والحوكمة، القدرة التنظيمية: التمويل، الأفراد والحوافز، تعليم وتعلم ريادة الأعمال، إعداد رواد الأعمال ودعمهم، التحول الرقمي والقدرة، تبادل المعرفة والتعاون، تدويل المؤسسة التعليمية، وتأثير تنفيذ مبادرات ريادة الأعمال على جودة التعليم.

ولتحقيق ذلك تم استخدام البحث الاستكشافي في ست جامعات فلسطينية. تم استخدام نهج البحث المختلط لجمع البيانات. مقابلات شبه منظمة مع 14 خبيراً في ريادة الأعمال في الضفة الغربية. تم تطوير الاستبيان بناءً على أداة المفوضية الأوروبية المسماة "HEInnovate" أجاب على هذه الاستمارة 276 مشاركاً في أنشطة ريادة الأعمال، بما في ذلك الطلاب والموظفين والخريجين في الجامعات الفلسطينية الست المختارة. تم تحليل البيانات المجمعة باستخدام البرنامج الإحصائي SPSS من خلال التحليل الوصفي والاستنتاجي.

الاستنتاج الرئيسي هو ان هناك درجة تنفيذ عالية (3.46) من أصل (5.00) لممارسات الريادة في الجامعات الفلسطينية من وجهة نظر المجتمع المستهدف حيث أن أعلى مستوى لتطبيق ممارسات الريادة كان "القيادة والحوكمة" بنسبة (72.3%) وأقل ممارسة تطبق في الجامعات هي "القدرات التنظيمية: التمويل والأفراد والحوافز" بنسبة (66.0%). إلى جانب ذلك، فإن العوائق الرئيسية التي يمكن أن تقيد تنفيذ برنامج العمل الريادي من وجهة نظر الخبراء في المقابلات هي عدم وجود تمويل مستدام لمشاريع ريادة الأعمال، وغياب خطة وطنية تنظم العمل الريادي على المستوى الوطني في فلسطين، ونقص الموظفين المؤهلين ورجال الأعمال في الجامعات.

أخيراً، يتوقع ان تساهم استنتاجات هذا البحث بمعلومات مفيدة لاتجاهات البحث المستقبلية وتقديم معلومات مفيدة لواضعي السياسات والأكاديمي.

