جـــامـعـــة الـــشـرق الأوسـط
MIDDLE EAST UNIVERSITY
Amman - Jordan

# Global Leadership Competencies in Developing Strategic Partnerships Through Digital Skills

## - A Field Study on Jordanian Pharmaceutical Companies -

# كفايات القيادة العالمية في تطوير الشراكات الإستراتيجية من خلال المهارات الرقمية

## ـ دراسة ميدانية في شركات الأدوية الأردنية ـ


**Prepared by**
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**Supervised by**
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**Thesis submitted in the fulfillment of the requirements of master's degree in business administration**


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**Jan, 2024**

# AUTHORIZATION

I, **Baha' Monther Sahawneh**, authorize the Middle East University to provide copies of my thesis on paper and electronically to libraries, organizations, and institutions concerned with scientific research and studies upon request.

Name: **Baha' Monther Sahawneh**

Date: 8/1/2024

Signature: 

# THESIS COMMITTEE DECISION

This thesis titled **"Global Leadership Competencies in Developing Strategic Partnerships Through Digital Skills - A Field Study on Jordanian Pharmaceutical Companies."**

Was approved on Monday 8/1/2024.

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**The Researcher**

**Baha' Monther Sahawneh**

# DEDICATION

«إِلَى هُنَا أَعَانَنَا الرَّبُّ»

I would like to express my deepest gratitude to **God** for guiding me throughout this journey and granting me the strength and wisdom to complete my master thesis, and for his unlimited blessings which were a constant source of inspiration and support.

This thesis is dedicated to my family which is the reason behind my success:

To my **father**, your guidance and wisdom have shaped me into the person I am today. Your unwavering belief in my potential has been a driving force behind my accomplishments. I am proud of my father who has always been by my side in every stage of my life.

To my **mother**, your unconditional love and sacrifices have been the foundation of my achievements. Your faith in me has given me the confidence to pursue my dreams. Thank you for your continuous prayers for me, and I am truly blessed to have you as my mom.

To my **brother** and **sister**, thank you for always being by my side. Your support and encouragement have been invaluable and a constant source of motivation throughout this journey.

Finally, I dedicate this work to everyone who believed in me and helped me reach my goals and dreams.

**The Researcher**

**Baha' Monther Sahawneh**

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# Global Leadership Competencies in Developing Strategic Partnerships through Digital Skills
## - A Field Study on Jordanian Pharmaceutical Companies -

**Prepared by: Baha' Monther Sahawneh**
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## Abstract

The study aims to determine the impact of global leadership competencies on the strategic partnerships with the presence of a mediator role of digital skills. The field of this study was Jordanian pharmaceutical companies.

This study was applied on Jordanian pharmaceutical companies consisted of (12) companies which have more than (100) employees. The population of the study that consisted of managers of the three managerial levels (top, middle and executive management) and their number is (232). Due to the limited number of individuals of the population and the possibility of accessing all its members, it was completely taken by census method.

The current study is considered as a causal study, and the descriptive analytical approach was used. The questionnaire was the main tool for collecting data, and the number of questionnaires accepted for analysis was (205), which represent (88.3%) of the population size. The collected data was analyzed by a set of statistical methods, (Means, Standard Deviations, Cronbach's Alpha, T-test, Confirmatory Factor Analysis (CFA), VIF, Tolerance, Multicollinearity test, Discriminant Validity Test (DV) and Structured Equation Model (SEM) using SMART-PLS 4.0 3M software).

The study concluded that the levels of all variables (global leadership competencies, strategic partnerships, and digital skills) were moderate. The study also concluded that there is a direct impact of the global leadership competencies on the strategic partnerships in Jordanian pharmaceutical companies and a direct impact of the global leadership competencies on digital skills. The study also showed a direct impact of digital skills on the strategic partnerships. Moreover, the study showed that the digital skills partially mediate the impact of the global leadership competencies on three dimensions of strategic partnerships (private partnership, public partnership and industry partnership).

The study recommended emphasizing the importance of global leadership competencies and improving them by developing individuals' knowledge, experiences, and skills, which help in shaping the dimensions of global leadership. And improve the company's effectiveness by increasing the experience curve of employees, holding training courses, and encouraging them to learn from mistakes and unsuccessful experiences.

It also recommended the need to focus on the importance of strategic partnerships and working to improve them by updating legislation related to these partnerships, and adopting cooperation strategies with other companies, which leads to raising the economic level and expanding geographical growth.

**Key words: Global Leadership Competencies, Strategic Partnerships, Digital Skills and Jordanian Pharmaceutical Companies.**

**كفايات القيادة العالمية في تطوير الشراكات الإستراتيجية من خلال المهارات الرقمية**

**- دراسة ميدانية في شركات الأدوية الأردنية -**

**إعداد: بهاء منذر سهاونه**

**إشراف: الأستاذ الدكتور أحمد علي صالح**

**الملخص**

تهدف الدراسة الى تحديد أثر كفايات القيادة العالمية على الشراكات الإستراتيجية مع وجود دور وسيط للمهارات الرقمية، وكان مجال الدراسة شركات الأدوية الأردنية والتي تكونت من (12) شركة تمتلك أكثر من (100) موظف. وتكون مجتمع الدراسة من المدراء من المستويات الإدارية الثلاثة (الإدارة العليا والوسطى والتنفيذية) وعددهم (232). ونظراً لمحدودية المجتمع وإمكانية الوصول إلى جميع أفراده، فقد تم أخذه بالكامل بطريقة المسح الشامل.

تعتبر الدراسة الحالية دراسة سببية، وتم استخدام المنهج الوصفي التحليلي. وكانت الاستبانة هي الأداة الرئيسية لجمع البيانات، وبلغ عدد الاستبانات المقبولة للتحليل (205) استبانة تمثل (88.3%) من حجم المجتمع. وتم تحليل البيانات التي تم جمعها باستخدام مجموعة من الأساليب الإحصائية، (الوسط الحسابي، الإنحراف المعياري، كرونباخ الفا، اختبار t، تحليل العامل التوكيدي، VIF، Tolerance، اختبار التعددية الخطية، اختبار الصدق التمييزي ونموذج المعادلة المهيكلة (SEM) باستخدام برنامج SMART-PLS 4.0 3M).

وتوصلت الدراسة الى أن مستويات جميع المتغيرات (كفايات القيادة العالمية والشراكات الإستراتيجية والمهارات الرقمية) جاءت متوسطة. وتوصلت الدراسة أيضاً إلى وجود تأثير مباشر لكفايات القيادة العالمية على الشراكات الإستراتيجية في شركات الأدوية الأردنية، وتأثير مباشر لكفايات القيادة العالمية على المهارات الرقمية. كما أظهرت الدراسة تأثيراً مباشراً للمهارات الرقمية على الشراكات الإستراتيجية. وتبين أن المهارات الرقمية تتوسط جزئياً تأثير كفايات القيادة العالمية على ثلاثة أبعاد للشراكات الإستراتيجية (الشراكة الخاصة، الشراكة العامة والشراكة الصناعية).

وأوصت الدراسة بالتأكيد على أهمية كفايات القيادة العالمية وتحسينها من خلال تطوير معارف وخبرات ومهارات الأفراد مما يساعد في تشكيل أبعاد القيادة العالمية وتحسين فاعلية الشركة من خلال نمو منحنى الخبرة لدى الموظفين، وعقد دورات تدريبية، وتشجيعهم على التعلم من الأخطاء والتجارب غير الناجحة.

كما أوصت على ضرورة التركيز على أهمية الشراكات الاستراتيجية والعمل على تحسينها من خلال تحديث التشريعات المتعلقة بهذه الشراكات، وتبني استراتيجيات التعاون مع الشركات الأخرى، مما يؤدي إلى تحسين المستوى الاقتصادي وتوسيع النمو الجغرافي.

**الكلمات المفتاحية: كفايات القيادة العالمية، الشراكات الإستراتيجية، المهارات الرقمية، شركات الأدوية الأردنية.**

# Chapter One
## Study Background and Importance

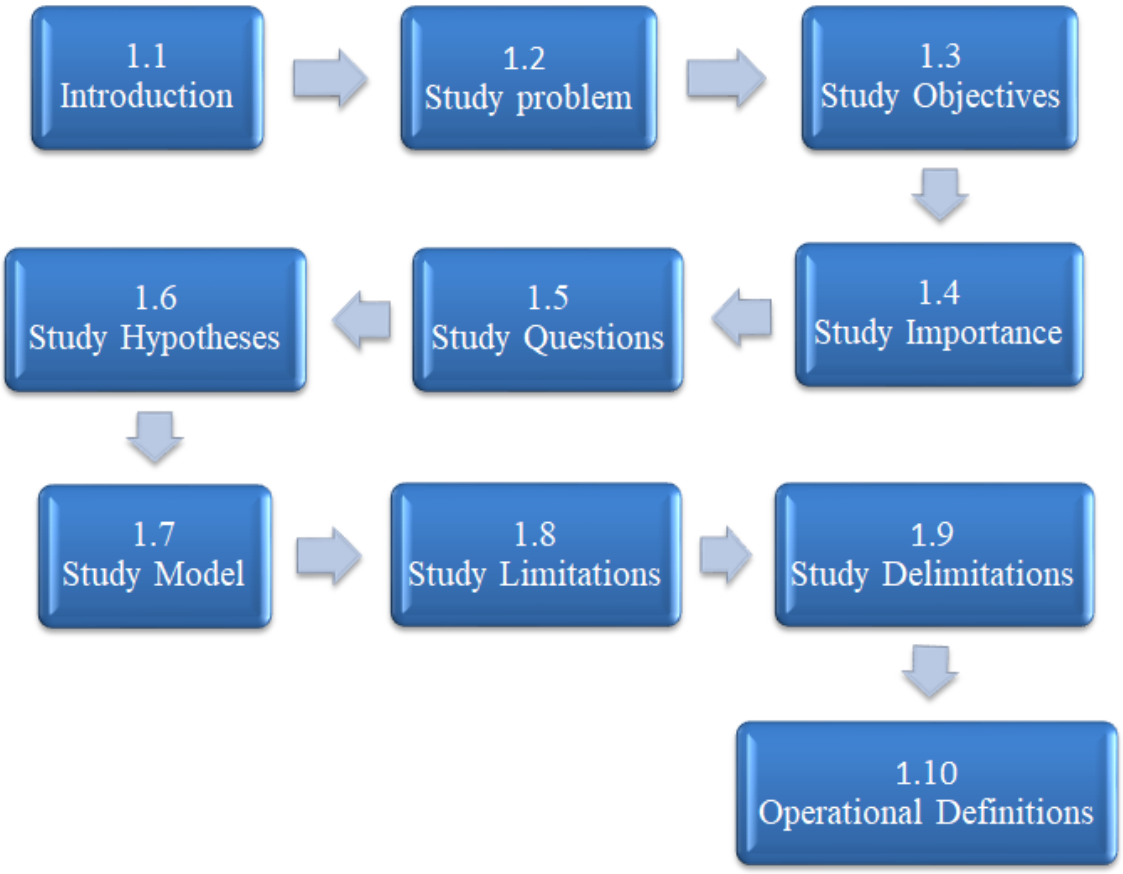


**Fig 1.1 Chapter one workflow chart.**

## 1.1 Introduction:

Nowadays, strategic partnerships are witnessing great growth among companies, due to their extreme importance, and to manage these partnerships we need a successful leadership. The successful leadership style is one of the most important success factors for companies, and the shift towards global leadership has now become a major requirement for achieving progress and development in companies.

Global leadership needs digital skills at all levels of the company, especially among its employees, as digital skills raise the competencies of the company and help build partnerships with others and facilitate the process of communication with them, as it has become a global language. Furthermore, if we have global leadership competencies and digital skills, we can build and develop our strategic partnerships.

Global strategic partnerships help business partners to have better relationships, and through inter-firm cooperation, they help create superior products and services for a variety of markets (Demirbag, et al., 2021). According to Sadovnikova, et al., (2016) the choice of partners is a vital strategic decision that directly impacts the effectiveness of technology-intensive partnerships. So, since the partners' goals are not always in alignment, competition is a necessary component of strategic partnerships. Caiazza, et al., (2016) said that partnerships with other companies improve successful interactions, information sharing, build trust and the spread of knowledge. Eksoz, et al., (2019) declared the positive impacts of strategic partnerships, where all parties of the partnership can increase market share, return on assets, customer satisfaction, average selling price, as well as product development and reduced response times. Malik, et al., (2021) showed in business partnerships knowledge, shared resources and specialist practices that are available to them must be continually managed and utilized by

partners. Evaluating the effectiveness of partnerships which is the ability to achieve the partners' strategic goals while operating the partnership effectively, is a crucial study topic that is becoming essential to the field of partnerships (Clarke, et al., 2019).

One of the problems of partnerships is that, due to the continual development of partnerships and the lack of standardized criteria and indicators, partnership effectiveness is very difficult to study (Clarke, et al., 2019). Furthermore, it is difficult to generalize findings due to the variety of partnership types because outcomes are somewhat influenced by the goals of the partnership and the partners.

In order to overcome these challenges, it is necessary to search for techniques and methods to evaluate results and comprehend how they were achieved in order to better comprehend the effects of partnerships.

Global leadership is the leadership of people who influence and bring about major improvements in companies, organizations, and communities by fostering the necessary level of trust, organizational structures, and processes (Park, et al., 2018 & Hassanzadeh, et al., 2015). As well as involving multiple cross-border stakeholders, resources, and cultures under different circumstances of temporal, geographical, and cultural complexity. Park, et al., (2018) referred to global leadership competencies as universal features that individuals must possess in order to accomplish their jobs outside of their own national and organizational cultures, regardless of one's educational or cultural background, or the organization they work for. Hassanzadeh, et al., (2015) mentioned the following competencies for global leadership: culture awareness, global mindset, learning from experiences and developing and maintaining relationships.

The study of Kirigi, (2020) revealed that the vital role and impact that effective leadership and skill management play in overcoming difficulties and achieving the goals

of private-public partnerships. Som, et al., (2020) showed the main role of leadership and its competencies and the important impact it has on partnerships, considering leadership as one of the critical factors in determining the success or failure of partnerships.

Companies with global leadership competencies need a global leader to lead them. Reiche, et al., (2017) defined global leaders as executives with global responsibilities in global and international companies, and those who can lead organizations that span a variety of countries, cultures, and customers, or those who work in jobs with some international field. Rickley, (2023) mentioned that the duties of global leaders include organizing a variety of activities, managing interdependent relationships, and having a cultural awareness, all of which are necessary for effective global leadership.

In order to activate the relationship between strategic partnerships and global leadership, we came up with a mediator variable, which is digital skills. The literature indicates that digital skills are an appropriate mediator variable. Digital skills are now necessary for employees across many fields, not just those in information and communications technology firms (Edelsbrunner, et al., 2022). Moreover, similar to writing, reading, and math, digital skills evolved as a new type of fundamental competence for the 21st century. Marhraoui, (2023) indicated that for project managers to be successful and prosperous in a dynamic and changing environment, they must adopt and master digital skills.

The study of Tolstolesova, et al., (2021) showed the importance of using digital tools and their important impact on the implementation of partnerships and their contribution to the interaction between partners and the reduction of partnership transaction costs.

Trotsenko, (2019) demonstrated the important impact and the need to use new digital tools that would enhance partnerships and make them more effective.

Gilli, et al., (2023) illustrated the positive impact of leaders who adapt digital leadership in their organizations, and take action to digitize their organizations, on employees who are affected by digitization and digital skills.

Based on the foregoing, the current study is important particularly in pharmaceutical companies due to the need for it in light of the strong competition and rapid digital development, also to examine the impact of global leadership competencies on strategic partnerships, with digital skills as a mediator variable. The study will be applied in Jordanian pharmaceutical companies, in an attempt to investigate the nature of the relationships among the three variables and look into the connections between them.

## 1.2 Study Problem:

The knowledge gap for the current study is summarized by the problems of partnerships in general and in Jordan particularly, is due to the lack of exploratory and analytical studies. In addition to neglecting many aspects, including those related to the foundations and patterns of partnerships, partner selection mechanisms and partnerships governance methodology. This gap has been diagnosed based on literature and formal reports, as shown in Figure (1.2).

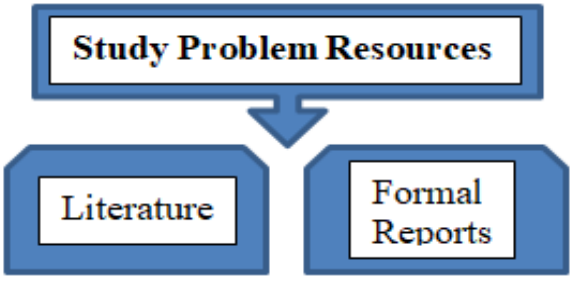


**Fig 1.2 Study Problem Resources.**

One of the problems of partnerships is that, due to the continual development of partnerships and the lack of standardized criteria and indicators, partnership effectiveness is very difficult to study (Clarke, et al., 2019). Furthermore, it is difficult to generalize findings due to the variety of partnership types because outcomes are somewhat influenced by the goals of the partnership and the partners. In order to overcome these challenges, it is necessary to search for techniques and methods to evaluate results and comprehend how they were achieved in order to better comprehend the effects of partnerships.

The study of Mistarihi, et al., (2013) recommended further studies on partnerships and their types; it also recommended that future research on public-private partnerships should seek to explore a range of stakeholder perspectives, and it revealed a number of difficulties that the partnerships implementation in Jordan had to deal with.

The study of Som, et al., (2020) studied the relationship between leadership competencies and partnerships and recommended focusing on how leadership competencies and their roles affect the success of partnerships. Moreover the study of Kirigi, et al., (2020) mentioned that the implementation of partnerships in general lacks leadership, especially balanced collaborative leadership, and recommended conducting more studies on leadership and its relationship with partnerships. The study of Tolstolesova, et al., (2021) revealed that partnerships have many limitations and lack of clarity in the mechanisms of partner selection, and called for further studies to be conducted.

According to Clarke, et al., (2019) their study focuses on partnerships cross-sectors and more research will be needed on the transferability of findings to larger partnerships in the same sector or other sectors. And the generalization of the results to partners on a

global scale needs further study because some of the results may be due to interactions based on place. Moreover, Sadovnikova, et al., (2016) study opens up the need for further testing on a large sample of companies that represent different cultural, economic and legal environments, and conducting empirical studies in several geographic and industrial groups.

The study of Caiazza, et al., (2016) searched in small and medium-sized companies in the agro-food sector. Some problems of generalizability to other sectors arose due to the unique characteristics of agro-food sector. One of the limitations of this paper is the relatively small data sample, which has a problem in representing the results.

As formal information, a special unit associated with the Ministry of Investment was issued under the name of the Public-Private Partnership Unit, and this unit was established because partnerships go through many obstacles, problems, ineffectiveness and lack of clarity in some of their aspects, and the need for a legal framework for the implementation and regulation of partnerships. And on the official website of the unit they announced the partnership law between the public and private sectors for the year 2020, due to the need to establish a unit to be the central body to supervise and support all partnerships between the public and private sectors. (Ministry of Investment, Public Private Partnership Unit official website).

## 1.3 Study Objectives:

The main purpose of this study is to determine the impact of global leadership competencies on the strategic partnerships with the presence of a mediator role of digital skills in Jordanian pharmaceutical companies by accomplishing the following objectives:

1. Providing a conceptual and intellectual framework for basic study variables (Global leadership competencies, strategic partnerships, digital skills).

2. Describing the levels of practice of the three variables (Global leadership competencies, strategic partnerships, digital skills) in Jordanian pharmaceutical companies.

3. Identifying the impact of global leadership competencies in the strategic partnerships.

4. Identifying the impact of global leadership competencies in the digital skills.

5. Identifying the impact of digital skills in the strategic partnerships.

6. Identifying the mediator role of digital skills for the impact of global leadership competencies on the strategic partnerships.

## 1.4 Study Importance:

The importance of this study viewed from two different perspectives; the scientific and the practical:

## Scientific Importance

- Formalization of a clear conceptual framework for the variables (Global leadership competencies, strategic partnerships, digital skills) in a way that contributes to analyzing its content and the knowledge of its benefits and importance.
- Increasing the clarity of these variables and their dimensions, by the collection and analysis of the researchers' opinions and explaining the most important

results of previous studies in this area and what the knowledge gaps in previous studies are.

- Besides enriching the theoretical literature on this subject, the study will allow other researchers to have further research relaying on the study results and to expand more in this field in the future.

## Practical importance

- The study field is on Jordanian pharmaceutical companies which is a vital sector to community and has a great impact on other industries.
- The importance of the study is evident by providing recommendations to Jordanian pharmaceutical companies about the importance of global leadership and its impact on the success of their strategic partnerships through digital skills, which enhances and contributes to the company's work efficiently and effectively.
- The variables examined in this study are very important and crucial for business organizations and the results of this study will assist decision-makers in broadening their horizons and taking into consideration other variables in business environments.

## 1.5 Study Questions:

The study problem is examined in details by answering the following main questions:

Q1: What is the level of competencies of global leadership in Jordanian pharmaceutical companies?

Q2: What is the level of strategic partnerships practices in Jordanian pharmaceutical companies?

Q3: What is the level of digital skills in Jordanian pharmaceutical companies?

Q4: What is the impact of global leadership competencies (Culture awareness, global mindset, learning from experiences, developing and maintaining relationships) on strategic partnerships in Jordanian pharmaceutical companies?

Q5: What is the impact of global leadership competencies on digital skills in Jordanian pharmaceutical companies?

Q6: What is the impact of digital skills on strategic partnerships in Jordanian pharmaceutical companies?

Q7: Do digital skills mediate the impact of global leadership competencies on the strategic partnerships in Jordanian pharmaceutical companies?

## 1.6 Study Hypotheses:

The following hypotheses were developed based on the above-mentioned problem statement, and they are:

H01 There is no impact of the global leadership competencies on the strategic partnerships in Jordanian pharmaceutical companies at ($\alpha \geq 0.05$).

The first hypothesis is divided into three sub-hypotheses:

$H01._1$ There is no impact of the global leadership competencies on the private partnership in Jordanian pharmaceutical companies at ($\alpha \geq 0.05$).

$H01._2$ There is no impact of the global leadership competencies on the public partnership in Jordanian pharmaceutical companies at ($\alpha \geq 0.05$).

$H01._3$ There is no impact of the global leadership competencies on the industry partnership in Jordanian pharmaceutical companies at ($\alpha \geq 0.05$).

H02 There is no impact of the global leadership competencies on the digital skills in Jordanian pharmaceutical companies at ($\alpha \geq 0.05$).

H03 There is no impact of the digital skills on the strategic partnerships in Jordanian pharmaceutical companies at ($\alpha \geq 0.05$).

H04 The digital skills do not mediate the impact of the global leadership competencies on the strategic partnerships in Jordanian pharmaceutical companies at ($\alpha \geq 0.05$).

The fourth hypothesis is divided into three sub-hypotheses:

$H04._1$ The digital skills do not mediate the impact of the global leadership competencies on the private partnership in Jordanian pharmaceutical companies at ($\alpha \geq 0.05$).

$H04._2$ The digital skills do not mediate the impact of the global leadership competencies on the public partnership in Jordanian pharmaceutical companies at ($\alpha \geq 0.05$).

$H04._3$ The digital skills do not mediate the impact of the global leadership competencies on the industry partnership in Jordanian pharmaceutical companies at ($\alpha \geq 0.05$).

## 1.7 Study Model:

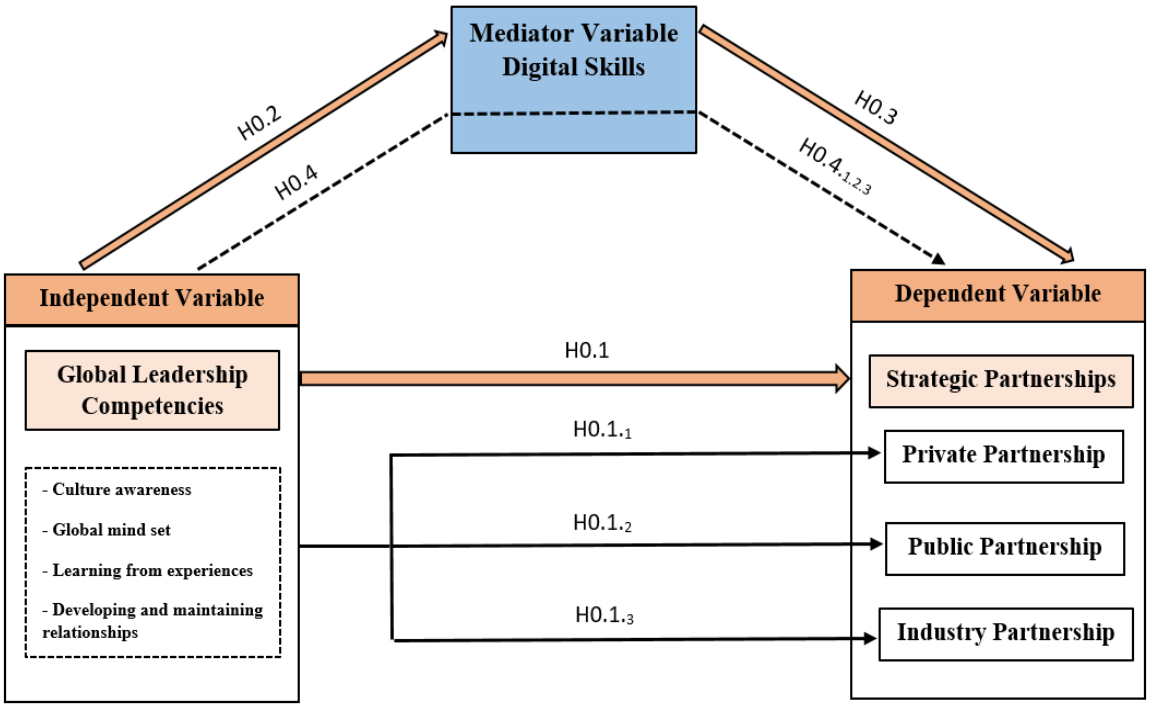


**Fig 1.3 Study Model.**

Source: Prepared by the researcher based on the following: Independent: (Hassanzadeh, et al., 2015); Dependent: (Caiazza, et al.; 2016); Mediator: (Tolstolesova, et al.; 2021).

## 1.8 Study Limitations:

- This study is applied in Jordanian pharmaceutical companies, and it might not be suitable to generalize in other fields in Jordan.
- The study is applied in Jordan but it cannot be generalized in companies in the same field outside Jordan.
- Study results depend on the objectiveness and credibility of the sample members to the extent of their response to the questionnaire.

## 1.9 Study Delimitations:

The study delimitations are listed in the following points:

- **Spatial:** This study is applied in Jordanian pharmaceutical companies.
- **Temporal:** The year 2023.
- **Humanity:** A selective sample of employees at low, middle, top managerial levels.
- **Scientific:** In this research, the relationship between the global leadership competencies and the strategic partnerships and the presence of digital skills as a mediator variable.

## 1.10 Operational Definitions:

**Global Leadership Competencies:**

Universal features that individuals must possess in order to accomplish their jobs outside of their own national and organizational cultures. Moreover, it is an integrated portfolio of knowledge, experiences, and skills that contribute to shaping the dimensions of global leadership in Jordanian pharmaceutical companies represented by (culture awareness, global mindset, learning from experiences, and developing and maintaining relationships), which were measured by the degree of individual's response to the questionnaire items. It is measured through questions (1 to 16) in the questionnaire.

Consist of four dimensions: culture awareness, global mindset, learning from experiences, and developing and maintaining relationships:

**Culture Awareness**: Competence focused on understanding the values and beliefs of different cultures. And through knowledge, awareness and acceptance of other cultures; people from different backgrounds can work together in greater integration. It is measured through questions (1, 2, 3 and 4) in the questionnaire.

**Global Mindset**: Competence concerned with achieving integration with the global environment through knowledge and experiences that enable the company to see the common patterns across countries and markets. It is measured through questions (5, 6, 7 and 8) in the questionnaire.

**Learning from experiences**: Competence reflects the company's effectiveness in learning from experiences, recognizing mistakes, diagnosing them, learning from them, and extracting knowledge from unsuccessful experiences, so that errors and deficiencies are avoided in the following stages and experiments. It is measured through questions (9, 10, 11 and 12) in the questionnaire.

**Developing and maintaining relationships**: Competence focuses on building, developing and maintaining healthy and sustainable relationships so that they are constructive and have a positive impact on the parties involved in them in the global market environment, including other companies and government and community entities. It is measured through questions (13, 14, 15 and 16) in the questionnaire.

**Strategic Partnerships:**

It is a partnership that extends over a long term, between two or more entities, from the same country or from different countries, which achieves returns and benefits for all parties involved. It is measured through questions (17 to 31) in the questionnaire.

Consist of three dimensions: private partnership, public partnership and industry partnership:

**Private Partnership**: The partnership held by private companies among themselves, whether from the same country or from different countries, in the field of planning, developing and exchanging experiences, skills and products, in a way that benefits all

parties of the partnership. It is measured through questions (17, 18, 19, 20 and 21) in the questionnaire.

**Public Partnership**: It is a form of organized cooperation between partners from the public and private sectors in planning, developing and using infrastructure facilities and includes sharing costs, benefits, risks, resources and responsibilities. It is measured through questions (22, 23, 24, 25 and 26) in the questionnaire.

**Industry Partnership**: It is a collaborative partnership between two or more parties made up of stakeholders in the industry with the aim of achieving benefit for both parties. It is motivated by the desire to exchange resources, knowledge and experience with the aim of reaching new markets and customers. It is measured through questions (27, 28, 29, 30 and 31) in the questionnaire.

**Digital Skills:**

The degree of mastery and practice of using and interacting with digital technologies and the ability to apply correctly and continuously learn to keep up with new developments. It is measured through questions (32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45 and 46) in the questionnaire.

**Jordanian Pharmaceutical Companies:**

Jordanian pharmaceutical companies refer to pharmaceutical companies that are located in Jordan. These companies are involved in the research, development, manufacturing, export and distribution of pharmaceuticals within Jordan and internationally. It contributes to enhancing progress in the pharmaceutical industry.

# Chapter Two
## Theoretical Framework and Previous Studies

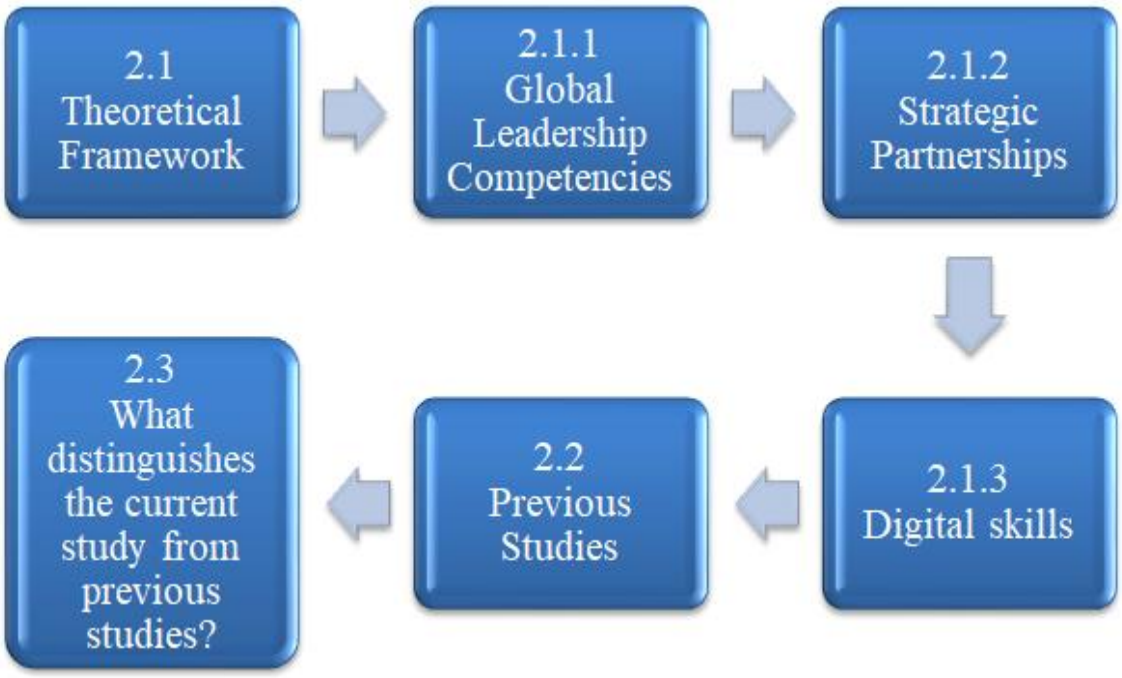


**Fig 2.1 Chapter two workflow chart.**

The content of this chapter aims to define and discuss the following main factors:

- Discuss the main definition for the current study and its dimensions (global leadership competencies, strategic partnerships and digital skills).
- Discuss the previous studies which are presented in the current study and its variables.
- Then list what distinguishes the current study from previous studies.

## 2.1 Theoretical Framework:

This part is allocated to reviewing the concepts and foundations of the current study and presenting its theoretical framework as it was mentioned in studies and literature, as follows:

### 2.1.1 Global Leadership Competencies:

It is argued that leadership theory and concept development over a century based on the presumption that leadership is always a function of the leader's persona cannot be summarily eliminated and this argument will continue (By, 2021).

Vijayakumar, et al., (2018) declared that for organizations, globalization in all its forms has generated an important amount of benefits as well as a number of difficulties. And the development of the leadership skills necessary for the effectiveness of global organizations is one particular on-going challenge in this area.

According to Park, et al., (2018) defined the global leadership competencies as universal features that individuals must possess in order to accomplish their jobs outside of their own national and organizational cultures, regardless of one's educational or cultural background, or the organization they work for.

Global leadership is defined as the actions and procedures used by a person to influence a variety of internal and external stakeholders from many national cultures and authorities in a setting with a high level of task and relationship complexity (Reiche, et al., 2019).

Therefor Vijayakumar, et al., (2018) highlighted the significance of global leadership in leading teams with individuals from various nations or demographic groups. And (Park, et al., 2018) confirmed that because companies and organizations are realizing the strategic value of global leadership in extending the variety of goods, services, and resources, there has been a rise interest in the topic among researchers and practitioners.

Based on what was mentioned above, we can realize the importance of global leadership competencies in any organization want to success and sustain at the long strategic term. The global leadership competencies will guide the organization to expand its business further at the global level and to realize the added value of this step.

#### 2.1.1.1 Dimensions of Global leadership competencies:

To effectively carry out their duties, global leaders need a specific set of global leadership competencies. Therefore, these dimensions were chosen for this study due to its great importance, as the study of (Hassanzadeh, Silong, Asmuni & Abd Wahat, 2015) emphasized and confirmed them.

Based on what was mentioned above, the following global leadership competencies dimensions were selected to be considered in the current study (Culture awareness, global mindset, learning from experiences, developing and maintaining relationships):

I. **Culture Awareness:** is the ability to communicate effectively with individuals from cultures that are distinct from our own and goes far beyond multicultural sensitivity (Byram, 2012).

II. **Global Mindset:** is a very sophisticated cognitive structure that is described as having the power to mediate and integrate across diverse cultural and strategic aspects on both a local and a global scale (Park, Jeong, Jang, Yoon & Lim, 2018). A concept includes holistic competences and is commonly related to the way in which global leadership mindset needed while making strategic business decisions and the authors identified global mindset components as, intellectual capital, psychological capital and social capital (Cseh, Davis & Khilji, 2013).

III. **Learning from experiences:** is one of the important competencies of a global leader, and when the leader's experience increases, this contributes to increasing his leadership competencies and the development of his skills, so the leader will be more effective when he is linked to other experiences (Leskiw & Singh, 2007).

IV. **Developing and maintaining relationships:** is an important competence of a global leader, as working at a global level requires the skills of developing and maintaining relationships, which reflects positively on the success of the leader and the company (Hassanzadeh, Silong, Asmuni & Abd Wahat, 2015).

Today the importance of the global leader in management is increasing, especially for companies that operate on a global level, and the urgent need appears for this leader to possess the competencies of global leadership.

### 2.1.2 Strategic Partnerships:

A strategic partnership is all partnership parties achieve their strategic goals through a continuous, long-term relationship, and this is reflected in increasing profitability for partners and value for customers (Mentzer, et al., 2000).

Gomri, et al., (2022) defined strategic partnership as a long-term cooperation agreement between two or more independent firms from the same or different nations that aim to accomplish similar strategic goals.

#### 2.1.2.1 Dimensions of Strategic partnerships:

Partnerships in the private, public and industrial sectors have positive effects on companies. Therefore, these dimensions were chosen for this study due to its extreme importance, as the study of (Caiazza & Stanton, 2016) and (Arispe, et al., 2022) emphasized and confirmed them.

Eventually, the word "PPP" came to be used and employed as umbrella term in order to describe cooperative relationships between public and private actors for the accomplishment of shared objectives (Singh & Prakash, 2010).

Based on what was mentioned above, the following strategic partnerships dimensions were selected to be considered in the current study (Private partnership, public partnership and industry partnership):

I. **Public-Private Partnership:** is characterized as a form of organized collaboration between public and private partners in the planning, development, and use of infrastructure facilities in which they share or reassign costs, benefits, risks, resources, and responsibilities (Torchia, Calabrò & Morner, 2015). Also it is defined as relationships with private or public organizations undertaken in

order to take advantage of opportunities through a collection of resources, assets, or skills under the firm's management (Caiazza & Stanton, 2016). According to Oviawe, (2018) public-private partnership is mutual agreements made by the government and private organizations to jointly supply people with services under specific conditions.

II. **Industry Partnership:** is a cooperative partnership made up of two or more industry participants that aim to provide profitable results for both parties to achieve common goals. In order to obtain access to new markets and customers, this cooperation is frequently distinguished by the desire to exchange resources, knowledge, and experience. Zhou, et al., (2023) mentioned that the companies involved in the industry partnership want to acquire a skilled labour force, promoting new product and markets development and raise their technical abilities. Additionally, various partners frequently have a distinct knowledge, so firms can improve their skills, technical knowledge, competencies, and experiences.

Today there is an increase in the need for strategic partnerships between companies, as this cooperation helps in planning and development in the long term, through the sharing of knowledge, experience, resources and benefits.

### 2.1.3 Digital Skills:

In this study digital skills are used as a mediator variable. Today, technology progress is influencing, changing, and shaping daily life to make it more rapid, hyper connected and immediate. This confirms the importance and the need of digital skills for all people (Cirilli, et al., 2019).

The importance of digital skills is increasing these days, as the importance of reading and writing has developed into a new type of basic competencies for this century. The importance and necessity of digital skills is increasing not only for workers in information and communication technology companies, but also for employees in various fields (Edelsbrunner, et al., 2022).

Marhraoui, (2023) emphasised that project managers need to learn and master digital skills if they want to succeed and develop in a changing and dynamic environment, especially since the Covid19 pandemic.

## 2.2 Previous Studies:

**1. Mistarihi, Hutchings & Shacklock, (2013) study entitled "Differing Opinions Do Not Spoil Friendships: Managing Public-Private Partnership (PPP) Infrastructure Projects in Jordan".**

The study aimed to analyze management challenges that partnerships experience in the implementation phase of two case study projects in Jordan.

A case study approach was selected in this research and involved semi-structured interviews with senior managers representing different partnering organizations in two case study organizations in Jordan, 21 participated in the research, representing 10 interviews in case study 1 and 11 interviews in case study 2.

The study recommended further studies on partnerships and their types; it also recommended that future research on public-private partnerships should seek to explore a range of stakeholder perspectives. And it revealed a number of difficulties that the partnerships implementation in Jordan had to deal with.

**2. Hassanzadeh, Silong, Asmuni & Abd Wahat, (2015) study entitled "Global Leadership Competencies".**

The study aimed to explore the conceptualization of global leadership and identification of global leadership competencies. The study employed the qualitative methodology through the in-depth interviews. The interviews were conducted with eight past and present top leaders of the University Putra Malaysia. Then the data from the interviews were transcribed verbatim, coded, analysed, interpreted and discussed accordingly.

As a result the study determined and examined some global leadership competencies that the global leader needs. And with rapid globalization, there is recognition for the need of more global leaders.

**3. Sadovnikova, Pujari & Mikhailitchenko, (2016) study entitled "Radical innovation in strategic partnerships: A framework for analysis".**

The study aimed to propose a conceptual model of the phenomenon of a radical innovation partnership and examines particular partner attributes affecting its performance; it also argues that contribution of each partner attribute is specific and differentiated. The study was applied on substantial sample of enterprises representing different economic, legal, and cultural environments.

The results of the study showed that particular partner attributes affect on radical innovation partnerships. And it added that the choice of partners is a vital strategic decision that directly impacts the effectiveness of technology-intensive partnerships.

The study also recommended further testing on a large sample of companies that represent different cultural, economic and legal environments, and conducting empirical studies in several geographic and industrial groups.

**4. Caiazza & Stanton, (2016) study entitled "The effect of strategic partnership on innovation: An empirical analysis".**

The study aimed to investigate inter-organizational partnership effects on innovations through reviewing the extant literature on factors affecting innovation and tests several hypotheses.

The study was applied on a sample of agro-food small and medium firms. Data were collected through a questionnaire and valid questionnaires were available with a useful response rate of 60%. The data were analysed using the regression analysis.

The results of the study showed that partnerships have a positive and significant impact on innovation, and partnerships with other companies improve successful interactions, information sharing, build trust and the spread of knowledge.

**5. Park, Jeong, Jang, Yoon & Lim, (2018) study entitled "Critical Review of Global Leadership Literature: Toward an Integrative Global Leadership Framework".**

The study aimed to critically examine the literature on global leadership competencies and behaviours, and present an integrative global leadership framework.

This study identified 25 articles published between 1995 and 2016 to be included in their final review. Among them are 14 studies on global leadership models and competencies, and 11 indigenous leadership studies.

As a result global leaders and managers are expected to actively perform a handful of intrapersonal, relational, organizational, and organization-external actions in dynamics and complicated global contexts.

**6. Clarke & MacDonald, (2019) study entitled "Outcomes to Partners in Multi-Stakeholder Cross-Sector Partnerships: A Resource-Based View".**

The study aimed to examine partner outcomes from the perspective of the strategic interest of the partner as distinct from the strategic goal of the partnership. This study used a qualitative research design and the data were collected by interviewing partner organizations involved in four best practice cases in Canada for a total of 47 interviews.

As a result partners increase capacity due to a new stakeholder engagement mechanism. This study focused on partnerships cross-sector so they recommended that more research will be needed on the transferability of findings to larger partnerships in the same sector or other sectors. And the generalization of the results to partners on a global scale needs further study because some of the results may be due to interactions based on place.

**7. Eksoz, Mansouri, Bourlakis & Önkal, (2019) study entitled "Judgmental adjustments through supply integration for strategic partnerships in food chains".**

The study aimed to examine manufacturers' strategic partnerships with retailers. The study was applied on a survey data collected from 105 food manufacturers in North America and Europe. To ensure the validity of the outcome resulting from the survey tool, they conducted interviews with a supply chain manager of a leading UK-based food manufacturer. The data were analysed using the Partial Least Squares (PLS) method.

The results of the study illustrated the partnership practices of manufacturers based in Europe and North America. And positive impacts of strategic partnerships, where all parties of the partnership can increase market share, return on assets, customer satisfaction, average selling price, as well as product development and reduced response times.

**8. Trotsenko, (2019) study entitled "Digital mechanisms of public-private partnership in the Russian agro-industrial complex".**

The study aimed to find the need for a system of measures to improve the digital mechanisms of agricultural public-private partnerships in Russia. The empirical study was applied on the Russian agro-industrial complex and used the data of the Federal Statistics Service of the Russian Federation, media materials, and published reports on the development of public-private partnerships.

As a result the study demonstrated the important impact and the need to use new digital tools that would enhance partnerships and make them more effective.

**9. Kirigi, (2020) study entitled "Influence of Strategic Leadership Style on Partnerships Implementation in a Medical Research Organization in Kenya: A Case Study".**

The study aimed to explore the manager's experiences and meaning of multiple partnerships and its impact on organizational outcomes. Also it aims to examine the Influence of strategic leadership style on partnerships implementation.

The study was applied on KEMRI workers based on identified unity of observation in Nairobi city County, Kenya. The instrument of data collection was a predetermined

structured questionnaire in order to obtain data from individuals and consists of a set of open and closed questions.

As a result the study revealed that the vital role and impact that effective leadership and skill management play in overcoming difficulties and achieving the goals of partnerships.

The study recommended conducting more studies on leadership and its relationship with partnerships because the implementation of partnerships in general lacks leadership, especially balanced collaborative leadership.

**10. Som, Omar, Ismail & Alias, (2020) study entitled "Understanding leadership roles and competencies for public-private partnership".**

The study aimed to explore the roles of public–private partnership (PPP) leaders and the vital skills and competencies that PPP leaders should possess to ensure the success of PPP projects in Malaysia.

The study adopted an exploratory qualitative research design using an in-depth interview technique. Ten informants who were involved in the PPP projects from the public and the private sectors participated in this study. Data gathered from the in-depth interview were analysed using the constant comparative method.

The findings of this study showed the main role of leadership and its competencies and the important impact it has on partnerships, considering leadership as one of the critical factors in determining the success or failure of partnerships. Also it showed that among the main roles of PPP leaders are building a collaborative culture, leading and influencing the partnership process.

**11. Malik, Pereira & Budhwar, (2021) study entitled "HRM in the global information technology (IT) industry: Towards multivergent configurations in strategic business partnerships".**

The study aimed to respond to calls for theory development in relation to processual and meso-level explanations of 'crossvergence' in strategic partnerships in the global information technology (IT) industry, by reviewing the extant literature.

This study highlighted the relevance of multivergence in strategic business partnerships within the global IT sector. Also showed in business partnerships knowledge, shared resources and specialist practices that are available to them must be continually managed and utilized by partners.

**12. Demirbag, Apaydin & Sahadev, (2021) study entitled "Micro-foundational dimensions of firm internationalisation as determinants of knowledge management strategy: A case for global strategic partnerships".**

The study aimed to investigate the relationship between micro-foundational dimensions of firm internationalisation and its knowledge management strategy in the emerging economies, which are operationalized into three categories: internal development, global strategic partnership, and outsourcing.

The study was applied on 3622 manufacturing firms from 20 countries operating in emerging economies. The data were collected by using a standard questionnaire through face-to-face interviews with members of the management team. The data were analysed using multinomial logistic regression,

The results of the study showed that the micro-foundations of the company's strategy affect the method of acquiring technology for the company, especially in global

strategic partnerships. It also showed that global strategic partnerships help business partners to have better relationships, and through inter-firm cooperation, they help create superior products and services for a variety of markets.

**13. Tolstolesova, Glukhikh, Yumanova & Arzikulov, (2021) study entitled "Digital Transformation of Public-Private Partnership Tools".**

The study aimed to analyse existing practices and determine what digital tools and technologies can facilitate the digital transformation of public-private partnerships.

The research results indicated that the importance of using digital tools and their important impact on the implementation of partnerships and their contribution to the interaction between partners and the reduction of partnership transaction costs.

The study also recommended and called for further studies to be conducted, because partnerships have many limitations and lack of clarity in the mechanisms of partner selection.

**14. Edelsbrunner, Steiner, Schön, Ebner & Leitner, (2022) study entitled "Promoting Digital Skills for Austrian Employees through a MOOC: Results and Lessons Learned from Design and Implementation".**

The study aimed to illustrate how employees' digital skills can be fostered through a Massive Open Online Course (MOOC), how such an offer is used and what the effects of such a measure are.

The data depended on 2083 participants in the course and on a questionnaire that was filled out by 489 participants. The answers to the questionnaire are analysed using descriptive methods.

The study showed very satisfactory results and the importance of the development of digital skills among employees, which are now necessary for employees across many fields, not just those in information and communications technology firms.

**15. Rickley, (2023) study entitled "A Systematic Review of Power in Global Leadership".**

The study aimed to develop a foundation for future research on power in global leadership by mapping critical knowledge gaps and outlining paths for further inquiry. The data based on 33 journals and 42 articles comprise the final review set.

The study concluded that the duties of global leaders include organizing a variety of activities, managing interdependent relationships, and having a cultural awareness, all of which are necessary for effective global leadership.

**16. Marhraoui, (2023) study entitled "Digital Skills for Project Managers: A Systematic Literature Review".**

The study aimed to carry out an exploratory study in order to explore project managers' digital skills and to study the relationship between enhancing project managers' digital skills and firm's performance. The data depend on performing a quantitative assessment of the 15 selected articles by using bibliometric tools.

The study concluded that adopting digital skills is as important as technical classic project management skills and soft skills, and it is a requirement for current project managers who they are looking for success.

## 2.3 What distinguishes the current study from previous studies?

- The current study combined three variables that previous studies had not previously collected, according to the researcher's knowledge, which are (global leadership competencies, strategic partnerships and digital skills).
- The current study adopted digital skills as a mediator variable, which hopes the findings will enrich the knowledge for future studies, because this was not studied a lot by previous studies.
- The choice of digital skills as a mediator is to link the dependent variable and the independent variable in a way that the researcher seeks to achieve integration between them in order to reach the goal of the study.
- Also this study will be applied on a very important sector which is the pharmaceutical companies sector in Jordan, which has not been considered yet in previous studies.

# Chapter Three
## Study Methodology and Procedures

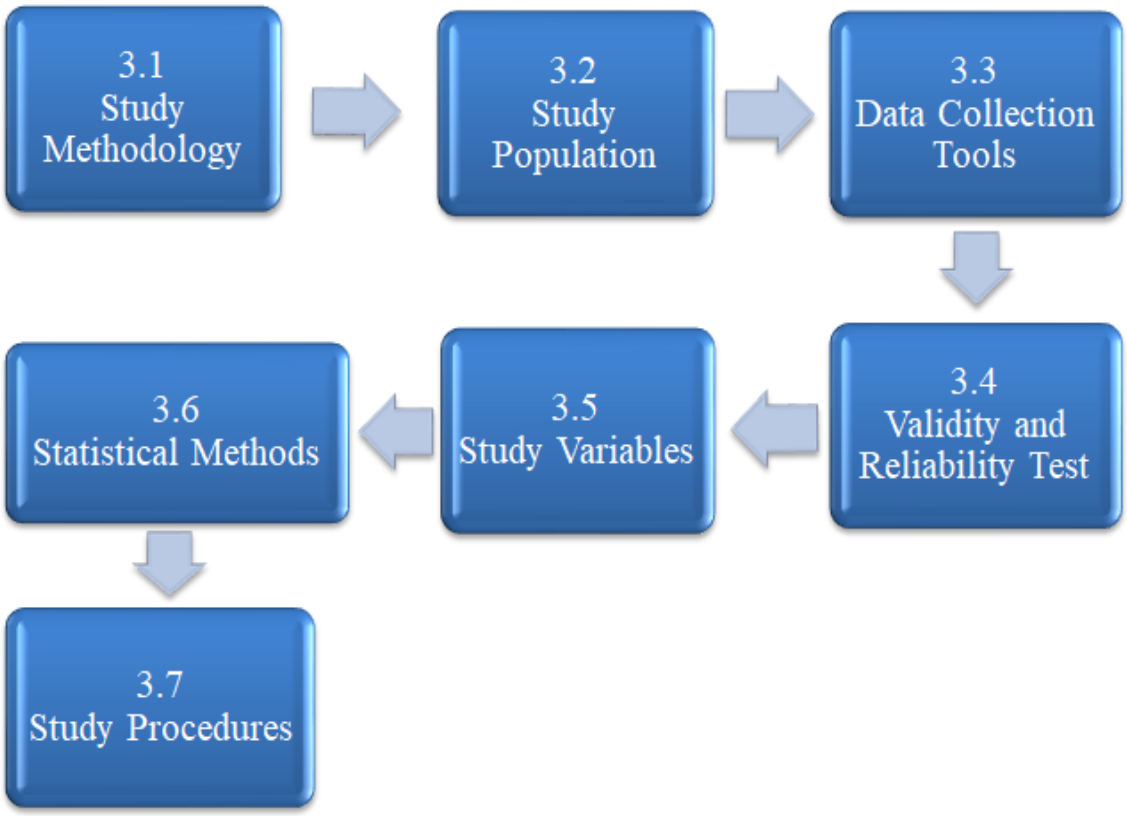


**Fig 3.1 Chapter three workflow chart.**

This chapter consists of the following parts: the study methodology, the study population, data collection tools, validity and reliability test, study variables, statistical methods and study procedures.

## 3.1 Study Methodology:

The current study is considered as a causal study, and the descriptive analytical approach was used through questionnaires to study the effect of global leadership competencies on the strategic partnerships with the presence of digital skills as a mediator variable in Jordanian pharmaceutical manufacturing companies.

## 3.2 Study Population:

The study was applied on Jordanian pharmaceutical companies, which they are (47) companies according to (Amman Chamber of Industry), and the companies to which the study was applied were selected after ranking the companies in terms of the number of employees and according to the nature of the work of the companies that engage in international work.

In order to obtain a suitable population for this study and contribute to achieving its objectives, the researcher searched for the following specifications:

1. Companies with number of employees greater than (100) employees.
2. Companies that engage in global activity, through import, export, participation and alliances.

The number of employees in the companies was obtained according to the numbers taken from (Amman Chamber of Industry, Statistics of the number of employees in

Jordanian pharmaceutical companies) and through the official companies' websites and after communicating with these companies directly.

The companies that were selected in the study are those with more than (100) employees, and the number of these companies is (18), and when the researcher reviewed these companies, see (Appendix 2, task facilitation letter), (12) of them expressed their approval for implementing the study, representing (67%). While the number of companies that refused to cooperate with us is (6) companies, representing (33%). Table (3-1) shows a description of the total numbers of the companies and the companies that could be included in the study, and the number and percentage of companies that accepted to cooperate with us and the number of those that refused to cooperate with us:

**Table (3-1): Companies Description**

| | |
|---|---|
| **Numbers of companies** | **47** |
| **Companies that could be included in the study** | **18** |
| **Number of companies that didn't cooperate with us** | **6** |
| **Number of companies that cooperated with us** | **18 – 6 = 12** |
| **Percentage** | **12 / 18 = 67%** |

Table (3-2) shows the names of these companies, the number of employees in them, and the number of employees at the three managerial levels (top, middle and executive management):

**Table (3-2): Jordanian pharmaceutical companies to which the study was applied**

| # | Company Name | Total number of employees | Number of employees by managerial level | | | |
|---|---|---|---|---|---|---|
| | | | Top-Level Management | Middle-Level Management | First-Level Management | Total |
| 1 | United Pharmaceuticals Company | 740 | 3 | 3 | 9 | 15 |
| 2 | JOSWE Medical | 456 | 5 | 8 | 11 | 24 |
| 3 | The Jordanian Pharmaceutical Manufacturing Co. (JPM) | 405 | 8 | 15 | 16 | 39 |
| 4 | The Arab Pharmaceutical Manufacturing Co. (APM) | 383 | 1 | 4 | 16 | 21 |
| 5 | Ram Pharmaceutical Co. | 319 | 3 | 9 | 15 | 27 |
| 6 | Amman Pharmaceutical Industries (API) | 243 | 2 | 4 | 10 | 16 |
| 7 | Hayat Pharmaceutical Industries Co. | 228 | 2 | 3 | 4 | 9 |
| 8 | Al - Taqaddom Pharmaceutical Industries ("TQ Pharma") | 213 | 2 | 3 | 5 | 10 |
| 9 | Al - Gadeed Pharmaceutical Industries Company | 150 | 1 | 2 | 6 | 9 |
| 10 | Jordan River Pharmaceutical Industries | 129 | 3 | 7 | 9 | 19 |
| 11 | Sana Pharma Industries | 117 | 3 | 5 | 13 | 21 |
| 12 | Jerash Pharmaceuticals Co. | 108 | 1 | 7 | 14 | 22 |
| **Total** | | | **34** | **70** | **128** | **232** |

Sources: Amman Chamber of Industry, the official companies' websites and after the researcher communicated with these companies directly.

The study population that consists of managers of the three managerial levels (top, middle and executive management) was counted from Jordanian pharmaceutical companies, which they are (232) managers distributed among the three managerial levels. In the light of the limited number of individuals of the population and the

possibility of accessing all its members, it was completely taken by a comprehensive survey method (census method).

## 3.3 Data Collection Tools:

This study relies on two types of data collection sources in order to reach its goals, which are primary sources and secondary sources:

## Secondary sources:

The researcher relied on the secondary sources available in the field of the study that were collected from articles, journals, annual reports, books, researches, thesis, working papers, and the Worldwide Web.

## Primary sources:

The researcher relied on the primary sources that were collected from questionnaire, and questionnaire questions will be related to the study variables. The questionnaire which is the main tool was developed to measure the three variables of the study (Global leadership competencies, strategic partnerships, digital skills), validity and reliability tests were conducted for the questionnaire.

## Preparing questionnaire paragraphs:

The questionnaire questions were prepared and developed based on previous studies, the number of questions was (54), and the following Table (3-3) shows the questionnaire references for each variable and dimension:

**Table (3-3): References to the variables and dimensions of the questionnaire**

| Study Variables | References |
|---|---|
| **1. Independent Variable:**<br>**Global Leadership Competencies**<br>**(**21 questions in total**)**<br>**It includes the following sub-dimensions:**<br>➢ **Culture Awareness** (5 questions)<br>➢ **Global Mindset** (6 questions)<br>➢ **Learning from experiences** (5 questions)<br>➢ **Developing and maintaining relationships** (5 questions) | • Boyagigiller, et al., (2017).<br>• Byram, (2012).<br>• Cseh, et al., (2013).<br>• Dirani, et al., (2020).<br>• Hassanzadeh, et al., (2015).<br>• Jiang, et al., (2018).<br>• Leskiw, et al., (2007).<br>• Park, et al., (2018).<br>• Reiche, et al., (2017).<br>• Reiche, et al., (2019).<br>• Rickley, (2023). |
| **2. Dependent Variable:**<br>**Strategic Partnerships**<br>**(**15 questions in total**)**<br>**It includes the following sub-dimensions:**<br>➢ **Private Partnership** (5 questions)<br>➢ **Public Partnership** (5 questions)<br>➢ **Industry Partnership** (5 questions) | • Ann-Kathrin, et al., (2021).<br>• Clarke, et al., (2019).<br>• Demirbag, et al., (2021).<br>• Eksoz, et al., (2019).<br>• Malik, et al., (2021).<br>• Mistarihi, et al., (2013).<br>• Trotsenko, (2019).<br>• Wang, et al., (2019). |
| **3. Mediator Variable:**<br>**Digital Skills**<br>**(**18 questions in total**)** | • Chanias, et al., (2016).<br>• Edelsbrunner, et al., (2022).<br>• Felch, et al., (2019).<br>• Marhraoui, (2023).<br>• Sugathan, et al., (2018).<br>• Virkkala, et al., (2020). |
| **The total number of questions is 54.** | |

A score was given to each question in the questionnaire to determine the extent to which the study sample members agreed with the questions related to the variables and dimensions of the study according to the five-level Likert scale, as shown in the following Table (3-4):

**Table (3-4): Items' scoring based on five-level Likert scale**

| Response | Strongly agree | Agree | Somewhat agree | Disagree | Strongly disagree |
|---|---|---|---|---|---|
| Level | 5 | 4 | 3 | 2 | 1 |

## 3.4 Validity and Reliability Test:

The validity of the study tool was verified through: Face Validity and Construct Validity, as follows:

## Face and Content Validity:

Creswell, (2006) defined face validity as the degree to which an instrument represents the concept or hypothesis it attempts or seeks to test. Thus, face validity entails ensuring that the question being asked in relation to the concept or hypothesis being assessed significantly covers the claimed intent of the concept or hypothesis being tested. Face validity is determined by a panel of experts who are asked to assess the composition of the concept or hypothesis and item appropriateness (Hair, Bain, Money, & Samouel, 2007; Sekaran & Bougie, 2009). To detect any potentially deceptive questions and propose recommendations based on their field experiences, the questionnaire was forwarded to a panel of experts from various disciplines from different universities in Jordan.

The questionnaire was presented to a group of academic arbitrators to take their comments on the questionnaire and find out their opinions about the validity of the paragraphs and their suitability for the purpose for which they were developed. The number of experts was (9) academic experts in the field of business administration (Appendix 3).

The questionnaire initially had (54) paragraphs, and in the light of these comments of the experts, (8) paragraphs were deleted and they were reduced to (46) paragraphs in their semi-final form. Some paragraphs were paraphrased and modified based on the opinions and comments of experts.

## Construct Validity:

## PLS-SEM Measurement Model (Confirmatory Factor Analysis (CFA)):

According to Hair et al., (2006; 2021), PLS-SEM measurement models are assessed in four steps: (a) indicator reliability is measured by indicator loadings of (0.40) or higher based on the sample size, (b) internal consistency reliability is measured by composite reliability of (0.70) or higher, (c) convergent validity is measured by an average variance extracted (AVE) of (0.50) or higher, and (d) discriminant validity should be higher than its correlation with other constructs. The first two steps dealt with reliability, while the third and fourth steps dealt with validity.

## Indicator Loading and Construct Validity:

Construct validity determines how well the test's results correlate to the ideas for which it was established (Sekaran & Bougie, 2009). Relative and cross-loadings need to be examined to determine if the data are convergent or discriminant. According to Hair

et al. (2006), indicator (factor) loadings should be greater than one (0.40). This study followed the above-mentioned recommendations and selected (0.40) as a significant cut-off value for factor loadings. Subsequently, all of the factors loading were greater than the required cut off loading. They are shown in Figure (3.2).

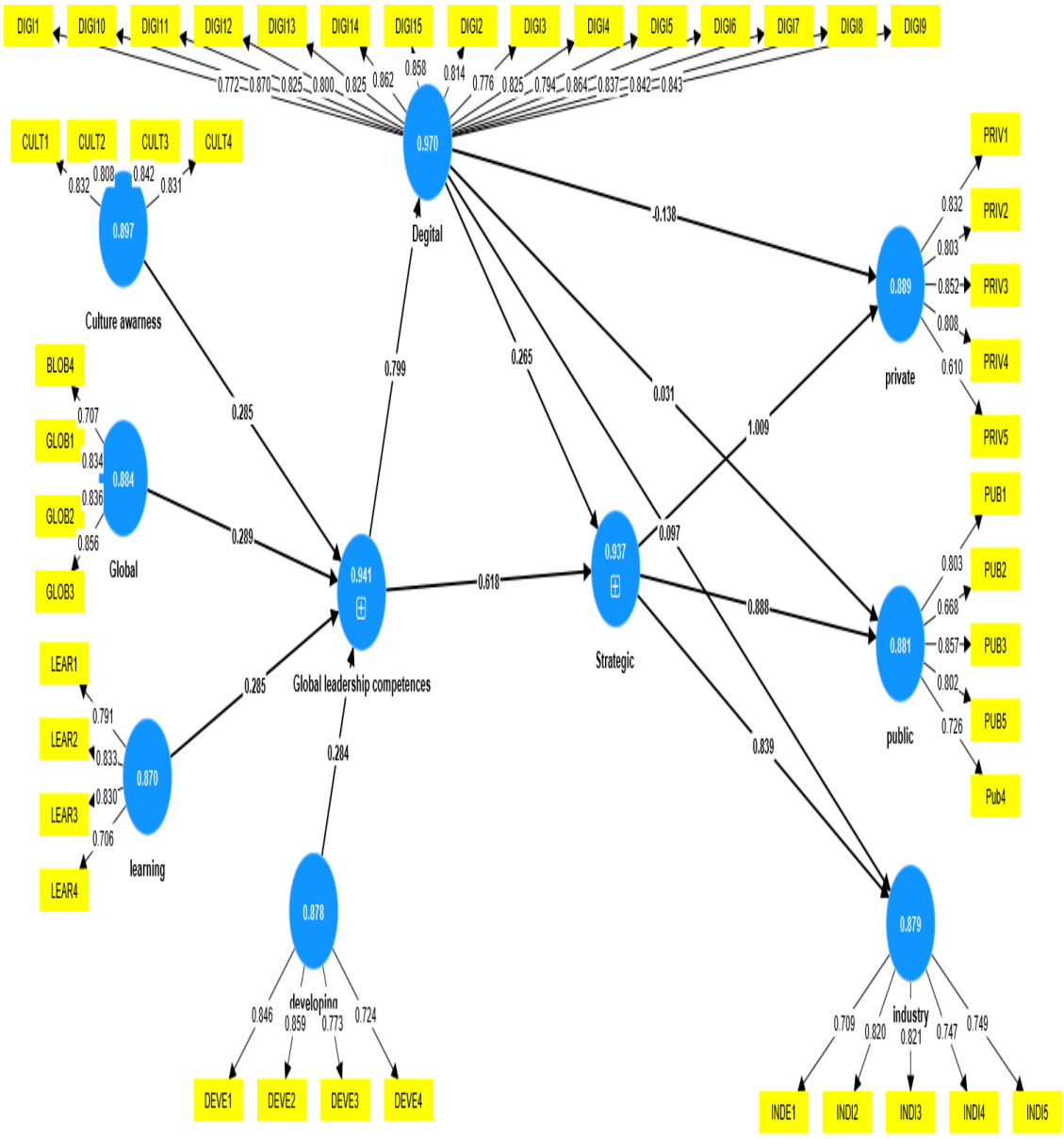


**Figure 3.2 Items Loading**

## Internal Consistency Reliability:

Internal consistency reliability assesses how consistently items in a construct's instrument measure what is anticipated to be assessed (Sekaran & Bougie, 2009). In the examination of internal consistency reliability, there are two primary statistics employed. Cronbach's alpha and composite reliability (CR) are two of these metrics. However, in the examination of internal consistency dependability, CR is deemed more powerful, particularly for PLS-SEM users (Hair et al., 2013).

**Table (3.5): Internal consistency reliability for Global Leadership Competences**

| No | Coding | Items | CR |
|---|---|---|---|
| 1 | CULT1 | The company's management believes that cultural diversity leads to enhance creativity. | 0.832 |
| 2 | CULT2 | The company's management works to increase inclusion at work by encouraging acceptance of differences. | 0.808 |
| 3 | CULT3 | The company's management believes that understanding cultural differences is the basis of its ability to respond to global requirements. | 0.842 |
| 4 | CULT4 | The company's management conducts studies on cultural awareness to develop its global performance. | 0.831 |
| 5 | GLOB1 | The company's management conducts studies to analyze the global environment in accordance with global competition standards. | 0.834 |
| 6 | GLOB2 | The company's management diagnoses the markets in which it competes before entering it. | 0.836 |
| 7 | GLOB3 | The company's management has the ability to determine the size with which it enters the global markets, large or small. | 0.856 |
| 8 | GLOB4 | The company's management benefits from developing its knowledge capabilities in the global market. | 0.707 |
| 9 | LEAR1 | The company's management conducts dialogue sessions to analyze feedback. | 0.791 |
| 10 | LEAR2 | The company's management prepares periodic reports that measure the level of customer satisfaction. | 0.833 |

| | | | |
|---|---|---|---|
| 11 | LEAR3 | The company's management follows the growth of the experience curve of its employees. | 0.830 |
| 12 | LEAR4 | The company's management emphasizes to its employees the importance of learning from previous mistakes and correcting them. | 0.706 |
| 13 | DEVE1 | The company's management enhances its sustainability in global markets through partnerships. | 0.846 |
| 14 | DEVE2 | The company's management considers deepening cooperation with companies as a growth strategy. | 0.859 |
| 15 | DEVE3 | The company's management believes that partnerships with other companies are a source to enrich its experiences. | 0.773 |
| 16 | DEVE4 | The company's management works to sustain its relationships with community entities. | 0.724 |

Table (3-5) shows the factor loading for all of the items for Global Leadership Competences, based on the above result, it's noted that the lowest value reached is the value (0.706) and bears the code LEAR4 as the rest of the values were greater than (0.706) in the confirmatory analysis. Based on the result all of the items will be used on the final test.

**Table (3-6): Internal consistency reliability for Private Partnership**

| No | Coding | Items | CR |
|---|---|---|---|
| 1 | PRIV1 | The company's management cooperates with other companies operating in the field with regard to training and transfer of expertise. | 0.832 |
| 2 | PRIV2 | The company's management adopts cooperation strategies with other companies. | 0.803 |
| 3 | PRIV3 | The company's management considers cooperation with other companies as a way to enhance the skills of employees in all companies. | 0.852 |
| 4 | PRIV4 | The company's management cooperates with other companies to obtain new opportunities. | 0.808 |
| 5 | PRIV5 | Partnership with other companies enhances the level of specialization in our company. | 0.610 |

Table (3-6) shows the factor loading for all of the items for Private Partnership, based on the above result, it's noted that the lowest value reached is the value (0.610) and bears in the code PRIV5 as the rest of the values were greater than (0.610) in the confirmatory analysis. On the other hand, according to Field (2005) & Hair et al., (2010) suggest that if the sample is greater than (200), the loading value should be (0.40) and higher and that it is considered a reliable factor loading. Based on the result all of the items will be used on the final test.

**Table (3-7): Internal consistency reliability for Public Partnership**

| No | Coding | Items | CR |
|---|---|---|---|
| 1 | PUB1 | The company's management works to cooperate with governments on the level of legislation related to our industry. | 0.803 |
| 2 | PUB2 | The company's management seeks to fulfill its commitments with the public sector with high reliability. | 0.668 |
| 3 | PUB3 | The government provides support for the development of industry in companies. | 0.857 |
| 4 | PUB4 | The company's management works to cooperate with the public sector, which contributes to reducing economic risks. | 0.726 |
| 5 | PUB5 | The company's management considers establishing partnerships with the public sector as part of its social responsibility. | 0.802 |

Table (3-7) shows the factor loading for all of the items for Public Partnership, based on the above result, it's noted that the lowest value reached is the value (0.668) and bears the code PUB2 as the rest of the values were greater than (0.668) in the confirmatory analysis. According to Field (2005) & Hair et al., (2010) suggest that if the sample is greater than (200), the loading value should be (0.40) and higher and that it is considered a reliable factor loading. Based on the result all of the items will be used on the final test.

**Table (3-8): Internal consistency reliability for Industry Partnership**

| No | Coding | Items | CR |
|---|---|---|---|
| 1 | INDE1 | The company's management views sharing their technology capabilities with other companies as an improvement in digital readiness. | 0.709 |
| 2 | INDI2 | The company's management believes that the exchange of products developed in a company will benefit all companies in the industry. | 0.820 |
| 3 | INDI3 | The company's management seeks to create cooperation at the level of supply chains between the companies of the sector to achieve industrial integration. | 0.821 |
| 4 | INDI4 | The company's management builds its industrial partnerships on the basis of the market reputation index of other parties. | 0.747 |
| 5 | INDI5 | The company's management seeks to develop its global partnerships to expand geographical growth. | 0.749 |

Table (3-8) shows the factor loading for all of the items for industry partnership, based on the above result, it's noted that the lowest value reached is the value (0.709) and bears the code INDE1 as the rest of the values were greater than (0.709) in the confirmatory analysis. According to Field (2005) & Hair et al., (2010) suggest that if the sample is greater than (200), the loading value should be (0.40) and higher and that it is considered a reliable factor loading. Based on the result all of the items will be used on the final test.

**Table (3-9): Internal consistency reliability for Digital Skills**

| No | Coding | Items | CR |
|---|---|---|---|
| 1 | DIGI1 | The company's management develops the organizational capabilities to overcome the problems facing efforts to raise the digital skills of employees. | 0.772 |
| 2 | DIGI2 | The company's management adheres to the standards of digital skills governance. | 0.814 |

| | | | |
|---|---|---|---|
| 3 | DIGI3 | The company's management determines the administrative regulations that must be adhered to in order to enhance digital skills. | 0.776 |
| 4 | DIGI4 | The company's management is working on attracting digital skills for employees. | 0.825 |
| 5 | DIGI5 | The company's management has appropriate digital skills. | 0.794 |
| 6 | DIGI6 | The company's management works according to an integrated plan to develop digital skills. | 0.864 |
| 7 | DIGI7 | The company's management monitors the progress of the digitized processes. | 0.837 |
| 8 | DIGI8 | The company's management provides the necessary resources for the growth of digital operations. | 0.842 |
| 9 | DIGI9 | The company's management is interested in continuous training in digital technologies. | 0.843 |
| 10 | DIGI10 | The company's management updates the digital equipment. | 0.870 |
| 11 | DIGI11 | The company's management motivates digital skills by linking performance to results. | 0.825 |
| 12 | DIGI12 | The company's management has indicators that reflect the achievements of services provided digitally. | 0.800 |
| 13 | DIGI13 | The company's management is constantly developing the approved digital software. | 0.825 |
| 14 | DIGI14 | The company's management emphasizes the integration of digital skills among all departments. | 0.862 |
| 15 | DIGI15 | The company's management evaluates digital skills periodically. | 0.858 |

Table (3-9) shows the factor loading for all of the items for Digital Skills, based on the above result, it’s noted that the lowest value reached is the value (0.772) and bears

the code DIGI1 as the rest of the values were greater than (0.772) in the confirmatory analysis. Based on the result all of the items will be used on the final test.

**Table (3-10): Average Variance Extracted (AVE) for study variables**

| Variables | Dimensions | Items No | AVE |
|---|---|---|---|
| Global leadership competences AVE = 0.50 | Culture Awareness | 4 | 0.686 |
| | Global Mindset | 4 | 0.657 |
| | Learning from experiences | 4 | 0.626 |
| | Developing and maintaining relationships | 4 | 0.644 |
| Strategic Partnerships AVE = 0.50 | Private Partnership | 5 | 0.618 |
| | Public Partnership | 5 | 0.599 |
| | Industry Partnership | 5 | 0.593 |
| Digital Skills | - | 15 | 0.685 |

Based on Table (3-10), the results revealed that AVEs ranging from (0.50) to (0.686) were all within the acceptable range. The first order factors were (0.50), (0.50) and (0.685) respectively, for second order factors all of the AVEs was greater than the acceptable range (0.50), Culture Awareness rate the higher AVE with (0.686) and Industry Partnership rate the lowest rate with (0.593).

## Discriminant Validity Test (DV):

The items that distinguish constructs or measure separate ideas are known as discriminant validity (DV). According to Hair et al. (2011), the AVE of latent constructs should be greater than the construct's greatest squared correlation with other

latent constructs. Thus, the loadings of Fornell and Larcker's (1981) criteria and indicator should be bigger than all cross-loadings.

**Table (3-11): Fornell and Larcker's matrix**

| Variables | CA | DS | GM | GLC | ST | DE | I | LFE | PRI | PP |
|---|---|---|---|---|---|---|---|---|---|---|
| **CA** | **0.828** | | | | | | | | | |
| **DS** | 0.659 | **0.828** | | | | | | | | |
| **GM** | 0.680 | 0.712 | **0.810** | | | | | | | |
| **GLC** | 0.703 | 0.799 | 0.786 | **0.705** | | | | | | |
| **ST** | 0.660 | 0.759 | 0.730 | 0.630 | **0.766** | | | | | |
| **DE** | 0.640 | 0.655 | 0.687 | 0.677 | 0.604 | **0.803** | | | | |
| **I** | 0.652 | 0.734 | 0.676 | 0.661 | 0.613 | 0.688 | **0.770** | | | |
| **LFE** | 0.642 | 0.765 | 0.730 | 0.690 | 0.607 | 0.743 | 0.641 | **0.791** | | |
| **PRI** | 0.576 | 0.629 | 0.597 | 0.640 | 0.604 | 0.773 | 0.734 | 0.643 | **0.786** | |
| **PP** | 0.572 | 0.703 | 0.718 | 0.661 | 0.611 | 0.729 | 0.758 | 0.642 | 0.731 | **0.774** |

*Note for Table (3-11). CA= Culture Awareness, DS= Digital Skills, GM= Global Mindset, GLC= Global Leadership Competences, ST= Strategic Partnerships, DE= Developing and maintaining relationships, I= Industry, LFE= Learning from experiences, PRI= Private Partnership, PP= Public Partnership.*

**Table (3-12): Internal Consistency Reliability**

| Variables | Dimensions | Items No | Cronbach's alpha | Composite reliability |
|---|---|---|---|---|
| Global Leadership Competences CR= 0.933 Alpha = 0.933 | Culture Awareness | 4 | 0.848 | 0.849 |
| | Global Mindset | 4 | 0.823 | 0.825 |
| | Learning from experiences | 4 | 0.799 | 0.799 |
| | Developing and maintaining relationships | 4 | 0.814 | 0.817 |
| Strategic Partnerships CR= 0.929 Alpha= 0.927 | Private Partnership | 5 | 0.841 | 0.847 |
| | Public Partnership | 5 | 0.831 | 0.839 |
| | Industry Partnership | 5 | 0.827 | 0.831 |
| Digital Skills | - | 15 | 0.967 | 0.967 |

Table (3-12) shows the result of Cronbach's alpha and composite reliability for the study variables first and second order variables. According to Hair et al., (2006; 2021), PLS-SEM measurement models are assessed the following: indicator reliability is measured by indicator loadings of (0.70) or higher and internal consistency reliability is measured by composite reliability of (0.40) or higher based on the sample size. Due to that all the factor loading rate more than required scale for Cronbach's alpha digital skills rate the highest (0.967) and learning from experiences rate the lowest (0.799). Composite reliability above the minimum range based on the result presented on Table (3-12) the highest rate were digital skills (0.967) and the lowest rate for learning from experiences (0.799).

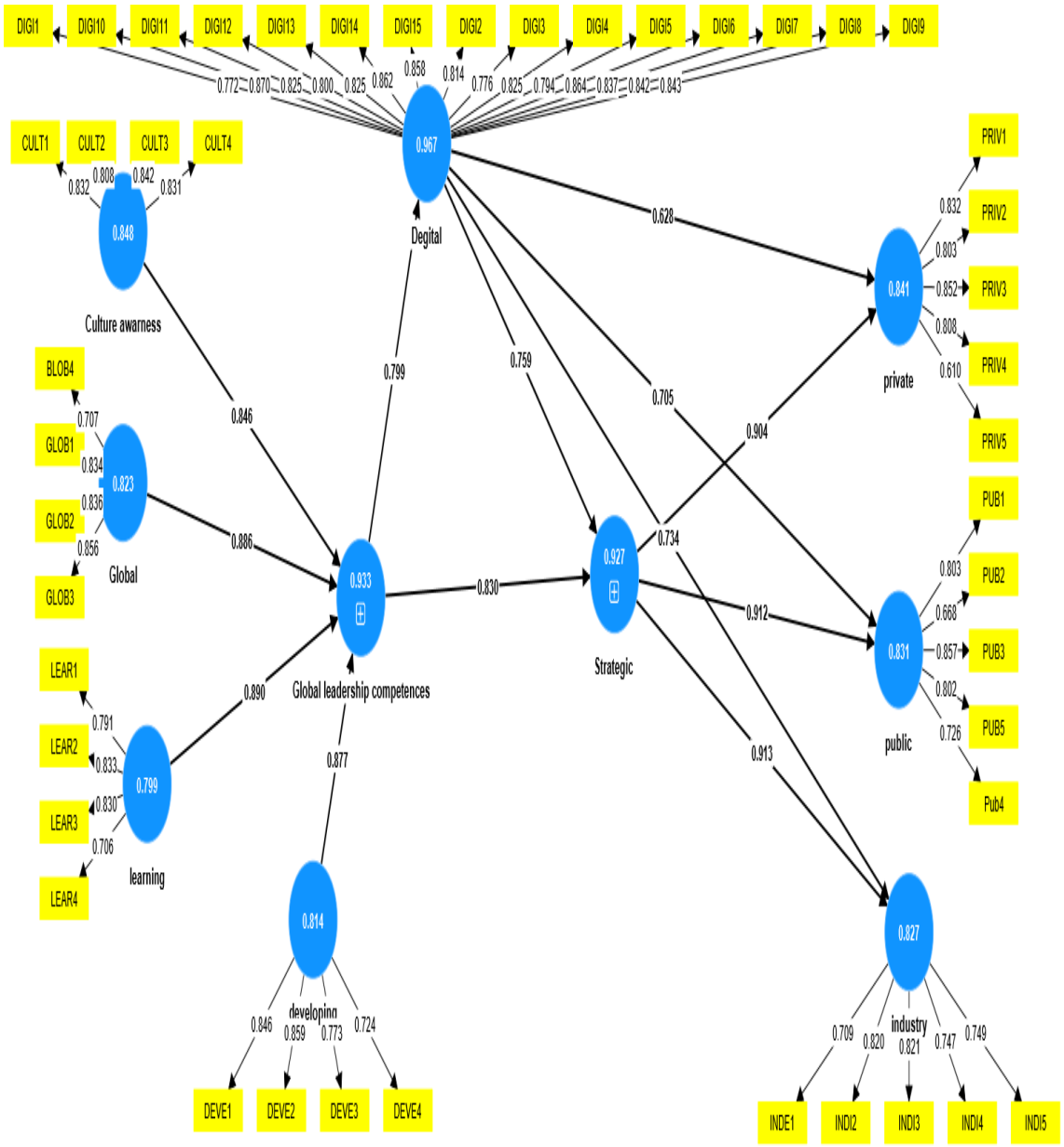


**Figure 3.3 Model with CA displayed on the constructs**

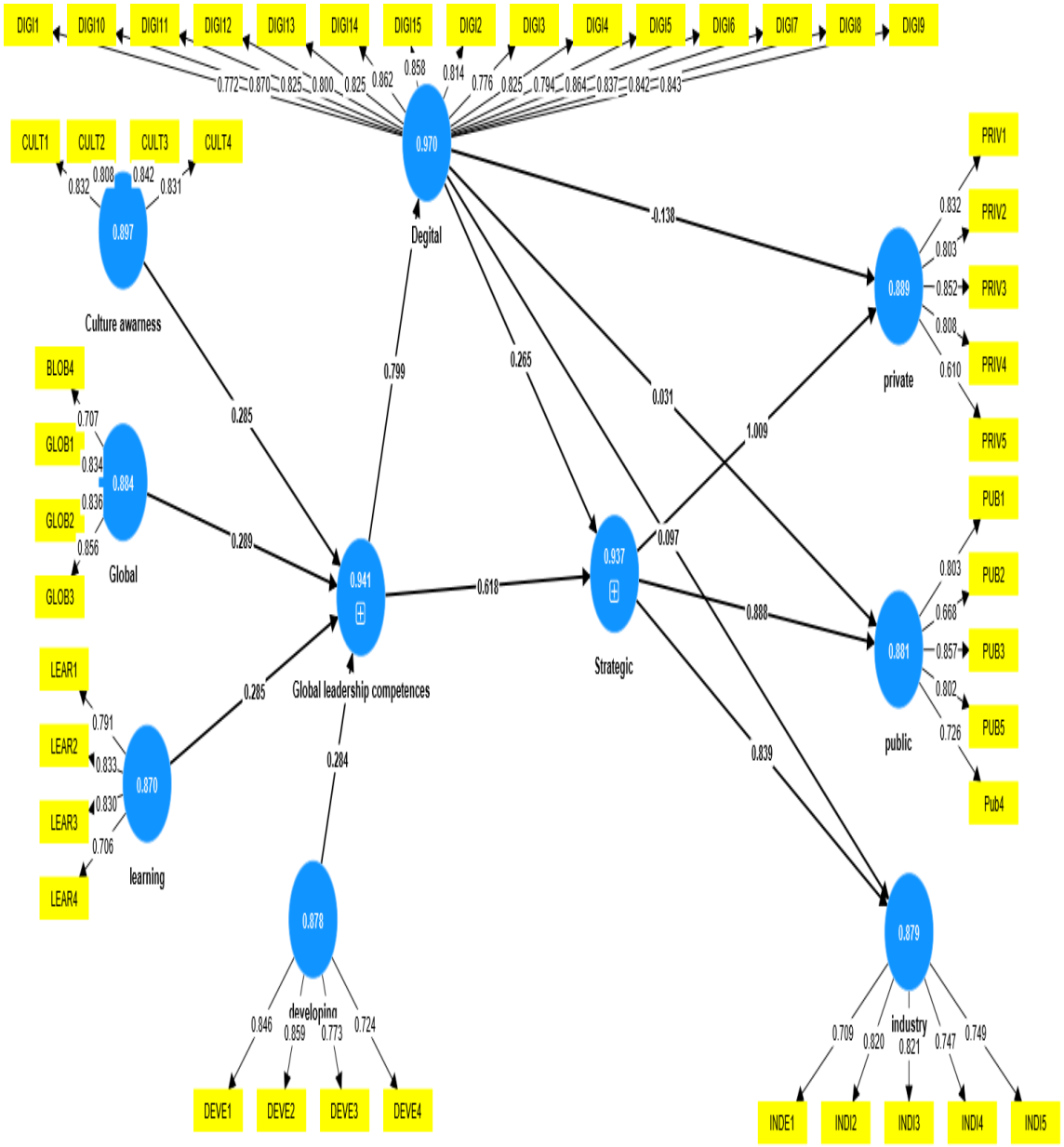


**Figure 3.4 Model with CR displayed on the constructs**

After completing the validity and reliability tests, the questionnaire in its final form consisted of (46) paragraphs. See Appendix (4).

## Distribution of the study tool (The questionnaire):

After the questionnaire was completed, the researcher distributed the questionnaire to the target sample. The questionnaire was distributed on-line through the following link: (https://forms.gle/dtxmzBQZPYmLtsv26), and also through paper distribution directly to the targeted employees after visiting the companies and communicating with them.

In the distribution stage, (232) questionnaires were distributed to the managers in Jordanian pharmaceutical companies, which represent the entire study population, and (205) questionnaires were returned out of a total of (232), which constituted (88.3%) of the size of the study sample and the distributed questionnaires. Table (3-13) shows response rate:

**Table (3-13): Response Rate**

| Sample | Number | Rate |
|---|---|---|
| Sample size | 232 | 100% |
| Sample returned | 205 | 88.3% |
| Usable sample | 205 | 100% |

Gender, age, years of experience, education level and finally management level are among the characteristics of the sample. The findings were acquired by analyzing the information provided by the respondents, and the demographic characteristics are shown in Table (3-14):

**Table (3-14): Description of the study sample members through its demographic variables**

| Variables | Category | Frequency | Percentage |
|---|---|---|---|
| **Gender** | Male | 118 | 57.6% |
| | Female | 87 | 42.4% |
| | Total | 205 | 100% |
| **Age** | Younger than 30 years | 46 | 22.4% |
| | 30 – less than 45 years | 104 | 50.7% |
| | 45 – less than 60 years | 46 | 22.4% |
| | 60 years & above | 9 | 4.4% |
| | Total | 205 | 100% |
| **Years of experience** | Less than 5 years | 40 | 19.5% |
| | 5 – less than 10 years | 60 | 29.2% |
| | 10 – less than 15 years | 44 | 21.5% |
| | 15 years & above | 61 | 29.8% |
| | Total | 205 | 100% |
| **Education level** | Bachelor's | 144 | 70.2% |
| | Master's | 45 | 22% |
| | PhD | 11 | 5.4% |
| | High Diploma | 5 | 2.4% |
| | Total | 205 | 100% |
| **Management level** | Top-Level Management | 28 | 13.7% |
| | Middle-Level Management | 68 | 33.2% |
| | First-Level Management | 109 | 53.2% |
| | Total | 205 | 100% |

The demographic data acquired in the final sample revealed that male managers who are working in the Jordanian pharmaceutical companies outnumber female managers, the percentage for male were (57.6%) while the female percentage (42.4%). The

descriptive data revealed that (118) of the respondents were male worker, whereas (87) were female worker.

It was discovered that the majority of responders (104) were in the age range of (30 years to less than 45 years), with just (9) respondents above the age of 60 out of the total number of the worker.

It is evident in Table (3-14) that more than (105) workers of the total respondents have more than 10 years of experience, (40) workers have less than 5 year of experience, while (60) workers with 5 years to less than 10 years of experience.

Regarding respondents' education level, the majority of respondents (144) workers were having bachelor's degree and the minority (5) respondents were having high diploma. Furthermore, master level (45) workers and finally workers who completed their PhD were (11) workers from the whole collected sample.

Finally, (109) of the respondents hold a position in first-level management, (68) respondents in the middle-level management, and finally (28) respondents hold a position as top-level management in the companies which give a good background of the respondents and allow them to respond professionally to the research study.

## 3.5 Study Variables:

- **Independent Variable:** Global leadership competencies which consist of four dimensions: (Culture awareness, global mindset, learning from experiences, developing and maintaining relationships).
- **Dependent Variable:** Strategic partnerships which consist of three dimensions: (Private partnership, public partnership and industry partnership).
- **Mediator Variable:** Digital Skills.

## 3.6 Statistical Methods:

The Statistical tools that were applied include:

1. **Frequencies and percentages,** to determine the measurement indicators adopted in the study and analyzing the characteristics of the study sample.
2. **Means,** to determine the level of response of the study sample to its variables.
3. **Standard deviations,** to measure the degree of divergence of the study sample responses from their mean.
4. **Confirmatory factor analysis (CFA),** through the structural equation model using SMART-PLS software.
5. To ensure the stability of the questionnaire, **the internal consistency through Cronbach Alpha coefficient test, Composite reliability (C.R)** and **Average variance extracted (AVE)** were used.
6. **Variance Inflation Factor (VIF) and Tolerance Test,** to ensure that there is no multicollinearity between the independent variables.
7. **T-test.**
8. **Discriminant Validity Test (DV),** the items that distinguish constructs or measure separate ideas.
9. **Partial Least Squares (PLS) Technique.**

## 3.7 Study Procedures:

The researcher took the following procedures:

1. The literature and related studies to the current study were reviewed.
2. The study tool was developed to ensure its validity and reliability.

3. The essential approvals to conduct the field study were taken from the relevant authorities.
4. The study population were determined by managers at all managerial levels (top, middle and executive) in Jordanian pharmaceutical companies.
5. The data was statistically analyzed.
6. Results were investigated, explained, and recommendations were written.

# Chapter Four
## Study Results and Hypotheses Test


**Fig 4.1 Chapter four workflow chart.**

## 4.1 Introduction:

The fourth chapter provides a description and analysis of the characteristics of the study sample from which the sample was collected, and of the study data, so that it presents a description and test of its variables and the relative importance of the study items, then an analysis of the answers collected regarding the study's questions, hypotheses and comments on them.

## 4.2 Study Results:

**Descriptive analysis:**

Conducting a descriptive analysis to describe the Pharmaceutical Companies overall situation in the Jordanian context. Table (4-1) shows the mean and weight. To easily interpret 5-point Likert scale, this study used three categories, namely scores of (3.67) (highest value [5] - 4/3]) were considered high, scores less than (2.33) (4/3 + lowest value [1]) were considered low, whereas scores in between were regarded moderate (2.34) to (3.66).

### 4.2.1 Analyse the questions of the independent variable (Global Leadership Competences):

This section shows the analysis of the questions of the independent variable (Global Leadership Competences that include 4 dimensions: culture awareness, global mind set, learning from experiences and developing and maintaining relationships).

**Table (4-1): Means, Relative weight, for Global Leadership Competences**

| Variables | Mean | Weight | Rank | Categories |
|---|---|---|---|---|
| Global Leadership Competences | 3.462 | %69.24 | -- | Moderate |
| Culture Awareness | 3.422 | %68.44 | 1 | Moderate |
| Global mind set | 3.314 | %66.28 | 3 | Moderate |
| Learning from experiences | 3.290 | %65.8 | 4 | Moderate |
| Developing and maintaining relationships | 3.319 | %66.38 | 2 | Moderate |
| Total | 3.36 | %67.2 | | Moderate |

Table (4-1) shows that culture awareness had the maximum mean value of (3.422); this is because the company's management believes that understanding cultural differences is the basis of its ability to respond to global requirements.On the other hand, learning from experiences had the minimum mean value of (3.290); the reason is due to the company's management needs to conduct dialogue sessions to analyze feedback. While developing and maintaining relationships is in the second rank and finally global mind set is in the third rank. A mean value which is above (2.33) but less than (3.67) is considered moderate. Based on the analysis results, the mean values of all variables are in the moderated level.

**Table (4-2): Global Leadership Competences items**

| No | Items | Mean | Wight | Rank | Standard deviations | T-value | Sig. | Categories |
|---|---|---|---|---|---|---|---|---|
| 1 | The company's management believes that cultural diversity leads to enhance creativity. | 3.201 | %64.02 | 12 | 0.781 | 71.793 | 0.000 | Moderate |
| 2 | The company's management works to | 3.190 | %63.8 | 13 | 0.693 | 80.095 | 0.000 | Moderate |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | increase inclusion at work by encouraging acceptance of differences. | | | | | | | |
| 3 | The company's management believes that understanding cultural differences is the basis of its ability to respond to global requirements. | 3.291 | %65.82 | 6 | 0.654 | 90.699 | 0.000 | Moderate |
| 4 | The company's management conducts studies on cultural awareness to develop its global performance. | 3.240 | %64.8 | 7 | 0.755 | 71.864 | 0.000 | Moderate |
| 5 | The company's management conducts studies to analyze the global environment in accordance with global competition standards. | 3.551 | %71.02 | 1 | 0.856 | 66.357 | 0.000 | Moderate |
| 6 | The company's management diagnoses the markets in which it competes before entering it. | 3.478 | %69.56 | 3 | 0.791 | 72.622 | 0.000 | Moderate |
| 7 | The company's management has the ability to determine the size with which it enters the global markets, large or small. | 3.233 | %64.66 | 8 | 0.712 | 82.104 | 0.000 | Moderate |
| 8 | The company's management benefits from developing its knowledge capabilities in the global market. | 3.211 | %64.22 | 11 | 0.733 | 71.497 | 0.000 | Moderate |
| 9 | The company's management conducts dialogue sessions to analyze feedback. | 3.160 | %63.2 | 14 | 0.714 | 82.984 | 0.000 | Moderate |
| 10 | The company's management prepares periodic reports that | 3.502 | %70.04 | 2 | 0.795 | 73.918 | 0.000 | Moderate |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | measure the level of customer satisfaction. | | | | | | | |
| 11 | The company's management follows the growth of the experience curve of its employees. | 3.341 | %66.82 | 5 | 0.750 | 75.435 | 0.000 | Moderate |
| 12 | The company's management emphasizes to its employees the importance of learning from previous mistakes and correcting them. | 3.221 | %64.42 | 10 | 0.663 | 86.451 | 0.000 | Moderate |
| 13 | The company's management enhances its sustainability in global markets through partnerships. | 3.134 | %62.68 | 15 | 0.760 | 75.354 | 0.000 | Moderate |
| 14 | The company's management considers deepening cooperation with companies as a growth strategy. | 3.431 | %68.62 | 4 | 0.721 | 83.376 | 0.000 | Moderate |
| 15 | The company's management believes that partnerships with other companies are a source to enrich its experiences. | 3.010 | %60.2 | 16 | 0.756 | 72.586 | 0.000 | Moderate |
| 16 | The company's management works to sustain its relationships with community entities. | 3.226 | %64.52 | 9 | 0.721 | 81.436 | 0.000 | Moderate |

Table (4-2) shows that the company's management conducts studies to analyze the global environment in accordance with global competition standards had the maximum mean value of (3.551) with a standard deviation of (0.856). On the other hand, the company's management believes that partnerships with other companies are a source to enrich its experiences had the minimum mean value of (3.010) with the standard

deviation of (0.756). A mean value which is above (2.33) but less than (3.67) is considered moderate. Based on the analysis results, the mean values of all items are in the moderated level.

Considering the t-test values, which ranged between (66.357 – 90.699), which is greater than its tabular values of (1.64), the value of Sig. (000), which is less than the value of (0.05), which indicate that the average values expressed by the respondents in the study and expressed by the members of the study sample were far from neutral.

The researcher belief that the companies use an integrated portfolio of knowledge, experiences, and skills that contribute to shaping the dimensions of global leadership competences in Jordanian pharmaceutical companies represented by (culture awareness, global mind set, learning from experiences, and developing and maintaining relationships).

### 4.2.2 Analyse the questions of the dependent variable (Strategic Partnerships):

This section shows the analysis of the questions of the dependent variable (Strategic Partnerships that include 3 dimensions: private partnership, public partnership and industry partnership).

**Table (4-3): Means, Relative weight, for Strategic Partnerships**

| Variables | Mean | Weight | Rank | Categories |
|---|---|---|---|---|
| Strategic Partnerships | 3.462 | %69.24 | -- | Moderate |
| Private Partnership | 3.312 | %66.24 | 2 | Moderate |
| Public Partnership | 3.214 | %64.28 | 3 | Moderate |
| Industry Partnership | 3.390 | %67.8 | 1 | Moderate |
| Total | 3.345 | %66.9 | | Moderate |

Table (4-3) shows that industry partnership had the maximum mean value of (3.390); this is because the company's management views sharing their technology capabilities with other companies is an improvement in digital readiness. On the other hand, public partnership had the minimum mean value of (3.214); the reason is due to the company's management needs to cooperate more with governments on the level of legislation related to industry. While private partnership is in the second rank. A mean value which is above (2.33) but less than (3.67) is considered moderate. Based on the analysis results, the mean values of all variables are in the moderated level.

**Table (4-4): Private Partnership items**

| No | Items | Mean | Wight | Rank | Standard deviations | T-value | Sig. | Categories |
|---|---|---|---|---|---|---|---|---|
| 1 | The company's management cooperates with other companies operating in the field with regard to training and transfer of expertise. | 3.301 | %66.02 | 2 | 0.781 | 73.793 | 0.000 | Moderate |
| 2 | The company's management adopts cooperation strategies with other companies. | 3.190 | %63.8 | 5 | 0.693 | 74.095 | 0.000 | Moderate |
| 3 | The company's management considers cooperation with other companies as a way to enhance the skills of employees in all companies. | 3.291 | %65.82 | 3 | 0.654 | 77.699 | 0.000 | Moderate |
| 4 | The company's management cooperates with other companies to obtain new opportunities. | 3.240 | %64.8 | 4 | 0.755 | 79.864 | 0.000 | Moderate |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 5 | Partnership with other companies enhances the level of specialization in our company. | 3.540 | %70.8 | 1 | 0.756 | 72.357 | 0.000 | Moderate |

Table (4-4) shows that partnership with other companies enhances the level of specialization in our company had the maximum mean value of (3.540) with a standard deviation of (0.756). On the other hand, the company's management adopts cooperation strategies with other companies had the minimum mean value of (3.190) with the standard deviation of (0.693). A mean value which is above (2.33) but less than (3.67) is considered moderate. Based on the analysis results, the mean values of all items are in the moderated level.

Considering the t-test values, which ranged between (72.357 – 79.864), which is greater than its tabular values of (1.64), the value of Sig. (000), which is less than the value of (0.05), which indicate that the average values expressed by the respondents in the study and expressed by the members of the study sample were far from neutral.

The researcher belief that the companies use partnership held by private companies among themselves, whether from the same country or from different countries, in the field of planning, developing and exchanging experiences, skills and products, in a way that benefits all parties of the partnership.

**Table (4-5): Public Partnership items**

| No | Items | Mean | Wight | Rank | Standard deviations | T-value | Sig. | Categories |
|---|---|---|---|---|---|---|---|---|
| 1 | The company's management works to cooperate with governments on the | 3.120 | %62.4 | 4 | 0.767 | 83.226 | 0.000 | Moderate |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | level of legislation related to our industry. | | | | | | | |
| 2 | The company's management seeks to fulfill its commitments with the public sector with high reliability. | 3.193 | %63.86 | 1 | 0.749 | 76.387 | 0.000 | Moderate |
| 3 | The government provides support for the development of industry in companies. | 3.130 | %62.6 | 3 | 0.809 | 77.590 | 0.000 | Moderate |
| 4 | The company's management works to cooperate with the public sector, which contributes to reducing economic risks. | 3.144 | %62.88 | 2 | 0.761 | 77.360 | 0.000 | Moderate |
| 5 | The company's management considers establishing partnerships with the public sector as part of its social responsibility. | 3.014 | %60.28 | 5 | 0.751 | 73.078 | 0.000 | Moderate |

Table (4-5) shows that the company's management seeks to fulfill its commitments with the public sector with high reliability had the maximum mean value of (3.193) with a standard deviation of (0.749). On the other hand, the company's management considers establishing partnerships with the public sector as part of its social responsibility had the minimum mean value of (3.014) with the standard deviation of (0.751). A mean value which is above (2.33) but less than (3.67) is considered moderate. Based on the analysis results, the mean values of all items are in the moderated level.

Considering the t-test values, which ranged between (73.078 – 83.226), which is greater than its tabular values of (1.64), the value of Sig. (000), which is less than the

value of (0.05), which indicate that the average values expressed by the respondents in the study and expressed by the members of the study sample were far from neutral.

The researcher belief that the companies use it is form of organized cooperation between partners from the public and private sectors in planning, developing and using infrastructure facilities and includes sharing costs, benefits, risks, resources and responsibilities.

**Table (4-6): Industry Partnership items**

| No | Items | Mean | Wight | Rank | Standard deviations | T-value | Sig. | Categories |
|---|---|---|---|---|---|---|---|---|
| 1 | The company's management views sharing their technology capabilities with other companies as an improvement in digital readiness. | 3.454 | %69.08 | 1 | 0.778 | 72.970 | 0.000 | Moderate |
| 2 | The company's management believes that the exchange of products developed in a company will benefit all companies in the industry. | 3.351 | %67.02 | 3 | 0.782 | 75.037 | 0.000 | Moderate |
| 3 | The company's management seeks to create cooperation at the level of supply chains between the companies of the sector to achieve industrial integration. | 3.396 | %67.92 | 2 | 0.737 | 74.911 | 0.000 | Moderate |
| 4 | The company's management builds its industrial partnerships on the basis of the market | 3.335 | %66.7 | 4 | 0.688 | 81.378 | 0.000 | Moderate |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | reputation index of other parties. | | | | | | | |
| 5 | The company's management seeks to develop its global partnerships to expand geographical growth. | 3.147 | %62.94 | 5 | 0.720 | 71.713 | 0.000 | Moderate |

Table (4-6) shows that the company's management views sharing their technology capabilities with other companies as an improvement in digital readiness had the maximum mean value of (3.454) with a standard deviation of (0.778). On the other hand, the company's management seeks to develop its global partnerships to expand geographical growth had the minimum mean value of (3.147) with the standard deviation of (0.720). A mean value which is above (2.33) but less than (3.67) is considered moderate. Based on the analysis results, the mean values of all items are in the moderated level.

Considering the t-test values, which ranged between (71.713 – 81.378), which is greater than its tabular values of (1.64), the value of Sig. (000), which is less than the value of (0.05), which indicate that the average values expressed by the respondents in the study and expressed by the members of the study sample were far from neutral.

The researcher belief that the companies can use a collaborative partnership between two or more parties made up of stakeholders in the industry with the aim of achieving benefit for both parties. It is motivated by the desire to exchange resources, knowledge and experience with the aim of reaching new markets and customers.

### 4.2.3 Analyse the questions of the mediator variable (Digital Skills):

This section shows the analysis of the questions of the mediator variable (Digital Skills).

**Table (4-7): Means, Relative weight, for Digital Skills**

| Variables | Mean | Weight | Rank | Categories |
|---|---|---|---|---|
| Digital skills | 3.352 | 67.04% | -- | Moderate |

Table (4-7) shows that digital skills had mean value of (3.352) and the range in the moderate categories; this is because the company's management has indicators that reflect the achievements of services provided digitally. A mean value which is above (2.33) but less than (3.67) is considered moderate.

**Table (4-8): Digital Skills items**

| No | Items | Mean | Wight | Rank | Standard deviations | T-value | Sig. | Categories |
|---|---|---|---|---|---|---|---|---|
| 1 | The company's management develops the organizational capabilities to overcome the problems facing efforts to raise the digital skills of employees. | 3.560 | %71.2 | 1 | 0.711 | 78.724 | 0.000 | Moderate |
| 2 | The company's management adheres to the standards of digital skills governance. | 3.212 | %64.24 | 10 | 0.700 | 78.483 | 0.000 | Moderate |
| 3 | The company's management determines the administrative regulations that must be adhered to in order | 3.238 | %64.76 | 8 | 0.707 | 71.987 | 0.000 | Moderate |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | to enhance digital skills. | | | | | | | |
| 4 | The company's management is working on attracting digital skills for employees. | 3.160 | %63.2 | 13 | 0.745 | 68.873 | 0.000 | Moderate |
| 5 | The company's management has appropriate digital skills. | 3.155 | %63.1 | 15 | 0.765 | 66.419 | 0.000 | Moderate |
| 6 | The company's management works according to an integrated plan to develop digital skills. | 3.184 | %63.68 | 12 | 0.713 | 72.255 | 0.000 | Moderate |
| 7 | The company's management monitors the progress of the digitized processes. | 3.311 | %66.22 | 7 | 0.767 | 72.437 | 0.000 | Moderate |
| 8 | The company's management provides the necessary resources for the growth of digital operations. | 3.233 | %64.66 | 9 | 0.790 | 62.780 | 0.000 | Moderate |
| 9 | The company's management is interested in continuous training in digital technologies. | 3.345 | %66.9 | 5 | 0.736 | 66.456 | 0.000 | Moderate |
| 10 | The company's management updates the digital equipment. | 3.210 | %64.2 | 11 | 0.697 | 68.849 | 0.000 | Moderate |
| 11 | The company's management motivates digital skills by linking performance to results. | 3.157 | %63.14 | 14 | 0.606 | 67.066 | 0.000 | Moderate |
| 12 | The company's management has indicators that reflect the achievements of services provided digitally. | 3.423 | %68.46 | 2 | 0.622 | 67.659 | 0.000 | Moderate |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 13 | The company's management is constantly developing the approved digital software. | 3.331 | %66.62 | 6 | 0.713 | 67.340 | 0.000 | Moderate |
| 14 | The company's management emphasizes the integration of digital skills among all departments. | 3.421 | %68.42 | 3 | 0.733 | 66.135 | 0.000 | Moderate |
| 15 | The company's management evaluates digital skills periodically. | 3.350 | %67 | 4 | 0.617 | 67.086 | 0.000 | Moderate |

Table (4-8) shows that the company's management develops the organizational capabilities to overcome the problems facing efforts to raise the digital skills of employees had the maximum mean value of (3.560) with a standard deviation of (0.711). On the other hand, the company's management has appropriate digital skills had the minimum mean value of (3.155) with the standard deviation of (0.765). A mean value which is above (2.33) but less than (3.67) is considered moderate. Based on the analysis results, the mean values of all items are in the moderated level.

Considering the t-test values, which ranged between (62.780 – 78.724), which is greater than its tabular values of (1.64), the value of Sig. (000), which is less than the value of (0.05), which indicate that the average values expressed by the respondents in the study and expressed by the members of the study sample were far from neutral.

The researcher belief that the companies practice of using and interacting with digital technologies and the ability to apply correctly and continuously learn to keep up with new developments.

**Discriminant Validity Test (DV):**

The items that distinguish constructs or measure separate ideas are known as discriminant validity (DV). According to Hair et al. (2011), the AVE of latent constructs should be greater than the construct's greatest squared correlation with other latent constructs. Thus, the loadings of Fornell and Larcker's (1981) criteria and indicator should be bigger than all cross-loadings.

**Table (4-9): Fornell and Larcker's matrix**

| Variables | CA | DS | GM | GLC | ST | DE | I | LFE | PRI | PP |
|---|---|---|---|---|---|---|---|---|---|---|
| **CA** | **0.828** | | | | | | | | | |
| **DS** | 0.659 | **0.828** | | | | | | | | |
| **GM** | 0.680 | 0.712 | **0.810** | | | | | | | |
| **GLC** | 0.703 | 0.799 | 0.786 | **0.705** | | | | | | |
| **ST** | 0.660 | 0.759 | 0.730 | 0.630 | **0.766** | | | | | |
| **DE** | 0.640 | 0.655 | 0.687 | 0.677 | 0.604 | **0.803** | | | | |
| **I** | 0.652 | 0.734 | 0.676 | 0.661 | 0.613 | 0.688 | **0.770** | | | |
| **LFE** | 0.642 | 0.765 | 0.730 | 0.690 | 0.607 | 0.743 | 0.641 | **0.791** | | |
| **PRI** | 0.576 | 0.629 | 0.597 | 0.640 | 0.604 | 0.773 | 0.734 | 0.643 | **0.786** | |
| **PP** | 0.572 | 0.703 | 0.718 | 0.661 | 0.611 | 0.729 | 0.758 | 0.642 | 0.731 | **0.774** |

*Note for Table (4-9).CA= Culture Awareness, DS= Digital Skills, GM= Global Mindset, GLC= Global Leadership Competences, ST= Strategic Partnerships, DE= Developing and maintaining relationships, I= Industry, LFE= Learning from experiences, PRI= Private Partnership, PP= Public Partnership.*

To confirm that the sample is free of the problem of multiple interference, the variance inflation factor (VIF) was calculated at the dimensions of the independent variable to ensure that there is no multiple linear interference between all independent variables, and the results were as follows:

**Table (4-10): VIF Variables Test**

| Variables | Dimensions | VIF | Tolerance |
|---|---|---|---|
| Global Leadership Competences | Culture Awareness | 2.307 | 0.433 |
| | Global mind set | 2.044 | 0.489 |
| | Learning from experiences | 2.550 | 0.392 |
| | Developing and maintaining relationships | 3.277 | 0.305 |
| Strategic Partnerships | Private Partnership | 2.534 | 0.394 |
| | Public Partnership | 2.564 | 0.390 |
| | Industry Partnership | 2.284 | 0.438 |
| Digital Skills | - | 1.373 | 0.728 |

Examining the variance influence factor (VIF) and the tolerance value, on the other hand, make the multicollinearity test easier. According to Hair et al. (2010), TO represents the degree of variability in the chosen independent variables that is not explained by other independent variables, whereas VIF is the inverse of tolerance. The cut-off values for TO and VIF are (0.10) and (10) respectively, suggesting that the tolerance value should be closer to (1.00) and the VIF value should be less than (10) to guarantee that multicollinearity is not present.

Table (4-10): highlights collinearity statistics for all independent variables. Tolerance values ranged between (0.305) and (0.728) while VIF values ranged between (1.373) and (3.277).

## 4.3 Hypothesis Testing:

The last phase of the structural model of PLS-SEM is used to evaluate the predicted correlations by running bootstrapping algorithm and PLS algorithm in Smart-PLS 4.0 3M. When the coefficient routes in PLS analysis are negligible or exhibit indicators opposing the hypothesized direction, Hair et al. (2011) confirmed that the prior hypothesis should be rejected in one hand. The significant pathways that reflect the anticipated direction experimentally support the claimed causal link. They claimed that the bootstrapping process may be used to determine the relevance of each route coefficient based on weights and loadings indicators. Item loadings, route coefficients, and $R^2$ values are all displayed in Figure (4.2).

Assessing the path coefficients by using the bootstrapping procedure, entails a least 5000 bootstrap samples, and the number of observations and the number of cases in the original sample should be equal (Hair et al., 2021). For a two-tailed test, the crucial *t* values are (2.58) (with a significance level of 1%), (1.96) (with a significance level of 5%), and (1.65) (with a significance level of 5%).

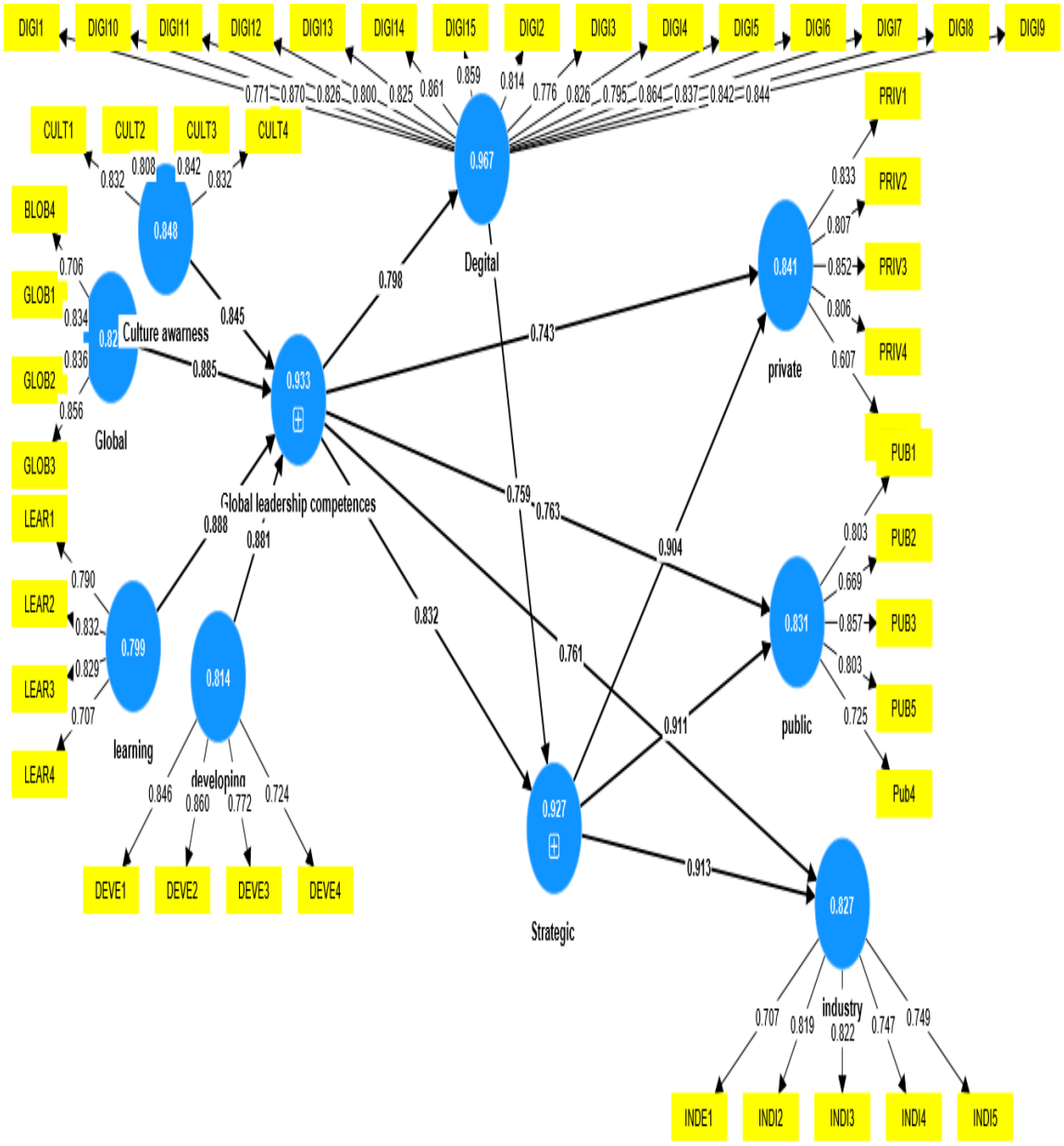


**Figure 4.2 Hypothesis Test.**

The researcher will test the following hypothesis using Smart PLS

**H01 There is no impact of the global leadership competencies on the strategic partnerships in Jordanian pharmaceutical companies at ($\alpha \geq 0.05$).**

**Table (4-11): Hypothesis 1 Result**

| Hypo | Path | Variable | Path Coefficient | T statistics (\|O/STDEV\|) | P values | Result |
|---|---|---|---|---|---|---|
| Global Leadership Competences | ⟶ | Strategic Partnerships | 0.832 | 28.558 | 0.000 | Null hypothesis is rejected & alternative hypothesis is accepted |
| Global Leadership Competences | ⟶ | Private Partnership | 0.743 | 18.301 | 0.000 | Null hypothesis is rejected & alternative hypothesis is accepted |
| Global Leadership Competences | ⟶ | Public Partnership | 0.763 | 22.035 | 0.000 | Null hypothesis is rejected & alternative hypothesis is accepted |
| Global Leadership Competences | ⟶ | Industry Partnership | 0.761 | 23.15 | 0.000 | Null hypothesis is rejected & alternative hypothesis is accepted |

The proposed relationship between global leadership competences to strategic partnership showed association with ($\beta$ = 0.832), ($t$ = 28.558). This hypothesis not supported based on the result.

The result showed there is a significant relationship between the variables based on the result null hypothesis is rejected and the alternative hypothesis is accepted:

There is impact of the global leadership competencies on the strategic partnerships in Jordanian pharmaceutical companies at ($\alpha \leq 0.05$).

**The result for the first hypothesis - sub-hypotheses:**

**$H01._1$ There is no impact of the global leadership competencies on the private partnership in Jordanian pharmaceutical companies at ($\alpha \geq 0.05$).**

The proposed relationship between global leadership competences to private partnership showed association with ($\beta$ = 0.743), ($t$ = 18.301). This hypothesis not supported based on the result.

The result showed there is a significant relationship between the variables based on the result null hypothesis is rejected and the alternative hypothesis is accepted:

There is impact of the global leadership competencies on the private partnership in Jordanian pharmaceutical companies at ($\alpha \leq 0.05$).

**$H01_2$ There is no impact of the global leadership competencies on the public partnership in Jordanian pharmaceutical companies at ($\alpha \geq 0.05$).**

The proposed relationship between global leadership competences to public partnership showed association with ($\beta$ = 0.763), ($t$ = 22.035). This hypothesis not supported based on the result.

The result showed there is a significant relationship between the variables based on the result null hypothesis is rejected and the alternative hypothesis is accepted:

There is impact of the global leadership competencies on the public partnership in Jordanian pharmaceutical companies at ($\alpha \leq 0.05$).

**$H01_3$ There is no impact of the global leadership competencies on the industry partnership in Jordanian pharmaceutical companies at ($\alpha \geq 0.05$).**

The proposed relationship between global leadership competences to industry partnership showed association with ($\beta$ = 0.761), ($t$ = 23.15). This hypothesis not supported based on the result.

The result showed there is a significant relationship between the variables based on the result null hypothesis is rejected and the alternative hypothesis is accepted:

There is impact of the global leadership competencies on the industry partnership in Jordanian pharmaceutical companies at ($\alpha \leq 0.05$).

The following table shows the result of hypothesis 2 and 3:

**Table (4-12): Hypothesis 2 and 3 Result**

| Hypo | Path | Variable | Path Coefficient | T statistics (\|O/STDEV\|) | P values | Result |
|---|---|---|---|---|---|---|
| Global Leadership Competences | ⟶ | Digital Skills | 0.798 | 25.455 | 0.000 | Null hypothesis is rejected & alternative hypothesis is accepted |
| Digital Skills | ⟶ | Strategic Partnerships | 0.759 | 3.056 | 0.002 | Null hypothesis is rejected & alternative hypothesis is accepted |

**H02 There is no impact of the global leadership competencies on the digital skills in Jordanian pharmaceutical companies at ($\alpha \geq 0.05$).**

The proposed relationship between global leadership competences to digital skills showed association with ($\beta = 0.798$), ($t = 25.455$). This hypothesis not supported based on the result.

The result showed there is a significant relationship between the variables based on the result null hypothesis is rejected and the alternative hypothesis is accepted:

There is impact of the global leadership competencies on the digital skills in Jordanian pharmaceutical companies at ($\alpha \leq 0.05$).

**H03 There is no impact of the digital skills on the strategic partnerships in Jordanian pharmaceutical companies at (α ≥ 0.05).**

The proposed relationship between digital skills to strategic partnerships showed association with ($\beta$ = 0.759), ($t$ = 3.056). This hypothesis not supported based on the result.

The result showed there is a significant relationship between the variables based on the result null hypothesis is rejected and the alternative hypothesis is accepted:

There is impact of the digital skills on the strategic partnerships in Jordanian pharmaceutical companies at (α ≤ 0.05).

## Mediator test:

The following table shows the result of the mediator result:

**Table (4-13): Hypothesis 4 Result (mediator result)**

| Hypo | Path | Variable | T statistics (\|O/STDEV\|) | P values | Result |
|---|---|---|---|---|---|
| Global Leadership Competences | Digital Skills | Strategic Partnerships | 3.013 | 0.003 | Partial Mediator |
| Global Leadership Competences | Digital Skills | Private Partnership | 2.416 | 0.016 | Partial Mediator |
| Global Leadership Competences | Digital Skills | Public Partnership | 0.492 | 0.022 | Partial Mediator |
| Global Leadership Competences | Digital Skills | Industry Partnership | 1.801 | 0.032 | Partial Mediator |

**H04 The digital skills do not mediate the impact of the global leadership competencies on the strategic partnerships in Jordanian pharmaceutical companies at (α ≥ 0.05).**

**Table (4-14): Direct and Indirect Result for H04**

| Hypo | T statistics (\|O/STDEV\|) | P values |
|---|---|---|
| Global Leadership Competences ⟶ Digital Skills ⟶ **Strategic Partnerships** | 3.013 | 0.003 |
| Global Leadership Competences ⟶ Digital Skills | 25.455 | 0.000 |
| Digital Skills ⟶ **Strategic Partnerships** | 3.056 | 0.002 |
| Global Leadership Competences ⟶ **Strategic Partnerships** | 28.558 | 0.000 |

To analyze a mediator model, Zhao et al. (2010) suggests a model, as shown in Figure (4.3), which Hair et al. (2022) also proposes to use for PLS-SEM:

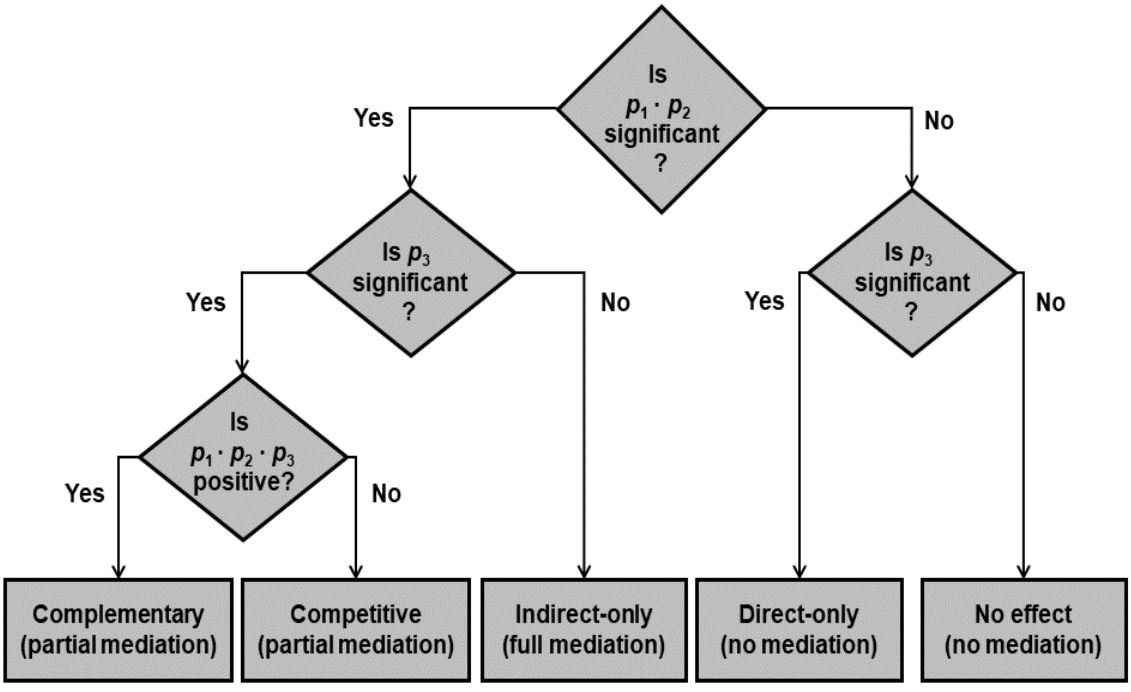


**Figure 4.3 Mediator Model.**

Source: Hair et al., (2022).

The influence of global leadership competences on strategic partnerships in Jordanian pharmaceutical companies is mediated by digital skills. The results are shown in Table (4-14) for direct and indirect relationship. Based on the result and mediator model in Figure (4.3), the result showed the relationship between the variables is partially mediated by the mediator, based on the result null hypothesis is rejected and the alternative hypothesis is accepted:

The digital skills mediate the impact of the global leadership competencies on the strategic partnerships in Jordanian pharmaceutical companies at ($\alpha \leq 0.05$).

**The fourth hypothesis is divided into three sub-hypotheses:**

**$H04._1$ The digital skills do not mediate the impact of the global leadership competencies on the private partnership in Jordanian pharmaceutical companies at ($\alpha \geq 0.05$).**

**Table (4-15): Direct and Indirect Result for $H04._1$**

| Hypo | T statistics (\|O/STDEV\|) | P values |
|---|---|---|
| Global Leadership Competences ⟶ Digital Skills ⟶ **Private Partnership** | 2.416 | 0.016 |
| Global Leadership Competences ⟶ Digital Skills | 25.455 | 0.000 |
| Digital Skills ⟶ **Private Partnership** | 17.366 | 0.000 |
| Global Leadership Competences ⟶ **Private Partnership** | 18.301 | 0.000 |

The influence of global leadership competences on private partnerships in Jordanian pharmaceutical companies is mediated by digital skills. The results are shown in Table (4-15) for direct and indirect relationship. Based on the result and mediator model in

Figure (4.3), the result showed the relationship between the variables is partially mediated by the mediator, based on the result null hypothesis is rejected and the alternative hypothesis is accepted:

The digital skills mediate the impact of the global leadership competencies on the private partnership in Jordanian pharmaceutical companies at ($\alpha \leq 0.05$).

**$H04._2$ The digital skills do not mediate the impact of the global leadership competencies on the public partnership in Jordanian pharmaceutical companies at ($\alpha \geq 0.05$).**

**Table (4-16): Direct and Indirect Result for $H04._2$**

| Hypo | T statistics (\|O/STDEV\|) | P values |
|---|---|---|
| Global Leadership Competences ⟶ Digital Skills ⟶ **Public Partnership** | 0.492 | 0.022 |
| Global Leadership Competences ⟶ Digital Skills | 25.455 | 0.000 |
| Digital Skills ⟶ **Public Partnership** | 3.213 | 0.001 |
| Global Leadership Competences ⟶ **Public Partnership** | 22.035 | 0.000 |

The influence of global leadership competences on public partnerships in Jordanian pharmaceutical companies is mediated by digital skills. The results are shown in Table (4-16) for direct and indirect relationship. Based on the result and mediator model in Figure (4.3), the result showed the relationship between the variables is partially mediated by the mediator, based on the result null hypothesis is rejected and the alternative hypothesis is accepted:

The digital skills mediate the impact of the global leadership competencies on the public partnership in Jordanian pharmaceutical companies at ($\alpha \leq 0.05$).

**$H04._3$ The digital skills do not mediate the impact of the global leadership competencies on the industry partnership in Jordanian pharmaceutical companies at ($\alpha \geq 0.05$).**

**Table (4-17): Direct and Indirect Result for $H04._3$**

| Hypo | T statistics (\|O/STDEV\|) | P values |
|---|---|---|
| Global Leadership Competences ⟶ Digital Skills ⟶ **Industry Partnership** | 1.801 | 0.032 |
| Global Leadership Competences ⟶ Digital Skills | 25.455 | 0.000 |
| Digital Skills ⟶ **Industry Partnership** | 3.458 | 0.001 |
| Global Leadership Competences ⟶ **Industry Partnership** | 23.15 | 0.000 |

The influence of global leadership competences on industry partnerships in Jordanian pharmaceutical companies is mediated by digital skills. The results are shown in Table (4-17) for direct and indirect relationship. Based on the result and mediator model in Figure (4.3), the result showed the relationship between the variables is partially mediated by the mediator, based on the result null hypothesis is rejected and the alternative hypothesis is accepted:

The digital skills mediate the impact of the global leadership competencies on the industry partnership in Jordanian pharmaceutical companies at ($\alpha \leq 0.05$).

## Summary of the results:

**Table (4-18): Summary of the results**

| Hypo | Path | Variable | T statistics (\|O/STDEV\|) | P values | Result |
|---|---|---|---|---|---|
| Global Leadership Competences | → | Strategic Partnerships | 28.558 | 0.000 | Null hypothesis is rejected & alternative hypothesis is accepted |
| Global Leadership Competences | → | Private Partnership | 18.301 | 0.000 | Null hypothesis is rejected & alternative hypothesis is accepted |
| Global Leadership Competences | → | Public Partnership | 22.035 | 0.000 | Null hypothesis is rejected & alternative hypothesis is accepted |
| Global Leadership Competences | → | Industry Partnership | 23.15 | 0.000 | Null hypothesis is rejected & alternative hypothesis is accepted |
| Global Leadership Competences | → | Digital Skills | 25.455 | 0.000 | Null hypothesis is rejected & alternative hypothesis is accepted |
| Digital Skills | → | Strategic Partnerships | 3.056 | 0.002 | Null hypothesis is rejected & alternative hypothesis is accepted |
| Global Leadership Competences | Digital Skills | Strategic Partnerships | 3.013 | 0.003 | Partial Mediate |
| Global Leadership Competences | Digital Skills | Private Partnership | 2.416 | 0.016 | Partial Mediate |
| Global Leadership Competences | Digital Skills | Public Partnership | 0.492 | 0.022 | Partial Mediate |
| Global Leadership Competences | Digital Skills | Industry Partnership | 1.801 | 0.032 | Partial Mediate |

# Chapter Five
## Results Discussion and Recommendations

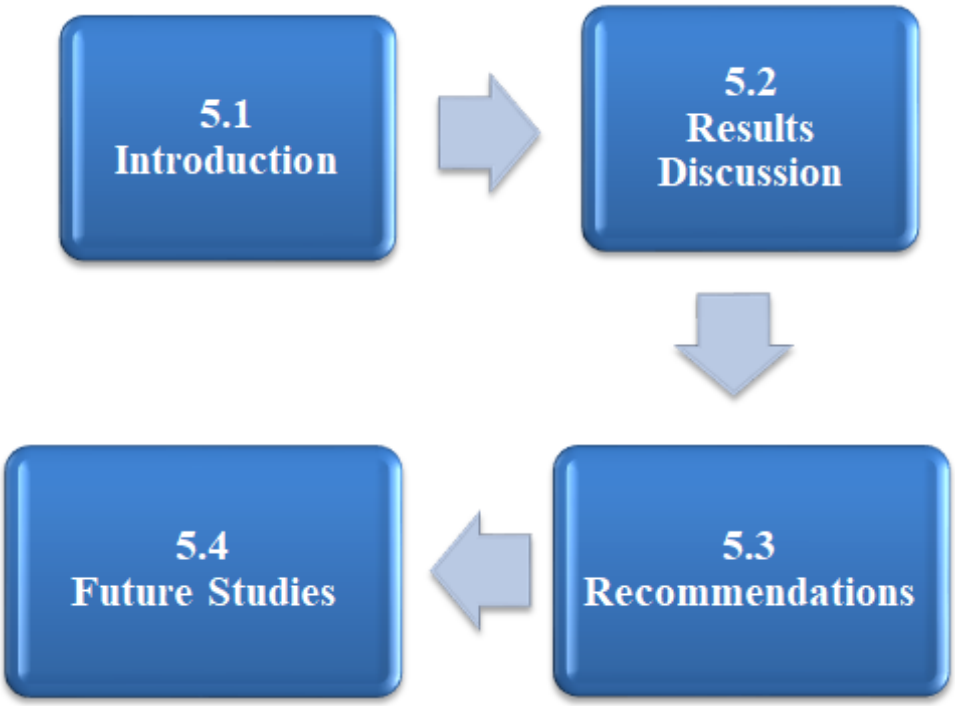


**Fig 5.1 Chapter five workflow chart.**

## 5.1 Introduction:

In the fourth chapter, the results of the study conducted by the researcher were presented, by answering the questions related to the study. In this chapter, the researcher will discuss the most prominent results of the variables and hypotheses of the study, and present recommendations and suggestions for future studies based on the results of the study.

## 5.2 Results Discussion:

### 5.2.1 Discussion of the Descriptive Analysis results of the variables:

### Independent Variable (Global Leadership Competences):

The study result reveals that the global leadership competences variable which includes the four dimensions (culture awareness, global mind set, learning from experiences, and developing and maintaining relationships) is important and it was moderate, it reaches (3.36). This is from the point of view of the study sample of managers of the three managerial levels (top, middle and executive management) working in Jordanian pharmaceutical companies. This is due to the lack of having global leadership competencies in managers and employees at the global level; this means that these competencies must be increased in order to achieve success in their jobs.

It is in line with Park, et al., (2018) study which refers to the importance of individuals having global leadership competences to improve themselves in their jobs and bring developments in companies.

The global leadership competences variable includes four dimensions: (culture awareness, global mind set, learning from experiences, and developing and maintaining relationships).

**Below is the result discussion of global leadership competences dimensions:**

## Culture Awareness:

The study result reveals that the answers of the study sample on culture awareness dimension has a moderate level, it reaches (3.422). This indicates that the company's management has less understanding about cultural differences which is the basis of its ability to respond to global requirements and they don't conduct studies on cultural awareness to develop its global performance. This agrees with Byram, (2012) study which refers to the importance of culture awareness because it increases the ability of individuals to communicate effectively no matter how different cultures are from each other.

## Global Mind set:

The study result reveals that the answers of the study sample on global mind set dimension has a moderate level, it reaches (3.314). This indicates that the company's management doesn't conduct studies to analyze the global environment in accordance with global competition standards. And the company's management doesn't diagnose the markets in which it competes before entering it and it has a limited ability to determine the size with which it enters the global markets, large or small.

This agrees with Boyagigiller, et al., (2017) study which emphasizes that managers must adopt a global mindset that allows them to see beyond the constrained perspectives of a single culture. It also agrees with Cseh, et al., (2013) study which refers to the need

of global leadership mindset to make strategic and extremely important business decisions.

## Learning from Experiences:

The study result reveals that the answers of the study sample on learning from experiences dimension has a moderate level, it reaches (3.290). This indicates that the company's management has insufficient monitoring of the growth of the experience curve of its employees, and doesn’t emphasize to them the importance of learning from previous mistakes and correcting them. Moreover it has week preparation of periodic reports that measure the level of customer satisfaction. This agrees with Leskiw, et al., (2007) study which emphasizes that one of the key competencies of a global leader is learning from experiences. As a leader's experience grows, so do his leadership competencies and skill development.

## Developing and Maintaining Relationships:

The study result reveals that the answers of the study sample on developing and maintaining relationships dimension has a moderate level, it reaches (3.319). This indicates that the company's management doesn’t consider deepening cooperation with companies as a growth strategy. Also it has a low level of enhancing its sustainability in global markets through partnerships. This agrees with Hassanzadeh, et al., (2015) study which stated that developing and maintaining relationships is a crucial competency for global leaders since doing business globally needs these abilities, which have a positive impact on both the company's and the leader's success and growth.

## Dependent Variable (Strategic Partnerships):

The study result reveals that the strategic partnerships variable which includes the three dimensions (private partnership, public partnership and industry partnership) is important and it was moderate, it reaches (3.345). This is from the point of view of the study sample of managers of the three managerial levels (top, middle and executive management) working in Jordanian pharmaceutical companies. This is due to the importance of strategic partnerships in companies at the global level and they need to improve themselves in this aspect. The company's management doesn't adopt cooperation strategies with other companies.

It is in line with Eksoz, et al., (2019) study which highlighted the benefits of strategic partnerships, including increased market share, product development, return on assets, customer satisfaction, average selling price and reduced response times for all involved parties.

The strategic partnerships variable includes three dimensions: (private partnership, public partnership and industry partnership).

**Below is the result discussion of strategic partnerships dimensions:**

## Private Partnership:

The study result reveals that the answers of the study sample on private partnership dimension has a moderate level, it reaches (3.312). This indicates that they have limited partnerships with other companies and that don't enhance the level of specialization in the companies. And they have insufficient cooperation with other companies that could lead to obtain new opportunities. This agrees with Caiazza, et al., (2016) study which emphasizes that establishing relationships with private organizations is done so as to

benefit from opportunities provided by a group of assets, resources, or skills that are managed by the company.

## Public Partnership:

The study result reveals that the answers of the study sample on public partnership dimension has a moderate level, it reaches (3.214). This indicates that the company's management doesn’t seek to fulfill its commitments with the public sector with high reliability, and the government must provide more support for the development of industry in companies. This agrees with Oviawe, (2018) study which refers that public private partnership is a collaboration between private sectors and the government to work together to provide services to people under certain rules.

## Industry Partnership:

The study result reveals that the answers of the study sample on industry partnership dimension has a moderate level, it reaches (3.390). This indicates that the company's management lacks sharing their technology capabilities with other companies which decreases their improvement in digital readiness. And the exchange of products developed in a company must be increased, which benefits all companies operating in the industry. Moreover the company's management doesn’t seek to develop its global partnerships to expand geographical growth. This agrees with Zhou, et al., (2023) study which highlighted that the goal of the companies taking part in the industry partnership is to develop new products and markets, gain a skilled labor force and enhance technical capacity.

## Mediator Variable (Digital Skills):

The study result reveals that the digital skills variable is important and it was moderate, it reaches (3.352). This is from the point of view of the study sample of managers of the three managerial levels (top, middle and executive management) working in Jordanian pharmaceutical companies. This indicates that the company's management needs to develop the organizational capabilities to overcome the problems facing efforts to raise the digital skills of employees. Also it must have more interest in continuous training for employees in digital technologies. Furthermore, the company's management needs to motivate digital skills by linking performance to results and needs to determine the administrative regulations that must be adhered to in order to enhance digital skills.

This agrees with Edelsbrunner, et al., (2022) study which emphasizes the fact that employees in a wide range of sectors, not only those in information and communications technology companies, increasingly require digital skills. Digital skills have also developed into a new kind of core competencies appropriate for the twenty-first century.

## 5.2.2 Discussion of the Results of the Study Hypotheses:

**1)** The study result revealed that the null hypothesis was rejected and the alternative hypothesis was accepted: There is a significant impact of the global leadership competencies with all its dimensions (culture awareness, global mind set, learning from experiences, and developing and maintaining relationships) on the strategic partnerships with all its dimensions (private partnership, public partnership and industry partnership) in Jordanian pharmaceutical companies at ($\alpha \leq 0.05$). This result confirms that there is

an important impact of global leadership competencies in pharmaceutical companies, and the presence of these competencies in managers reflects positively on the success of the strategic partnerships of these companies. This harmonizes with the study of Som, et al., (2020) that showed the main role of leadership competencies and the important impact it has on strategic partnerships, considering leadership as one of the critical factors in determining the success or failure of partnerships. Also this agrees with Kirigi, (2020) study which revealed that the vital role and impact that effective leadership and skill management plays in overcoming difficulties and achieving the goals of private-public partnerships.

**2)** The study result revealed that the null hypothesis was rejected and the alternative hypothesis was accepted: There is a significant impact of the global leadership competencies with all its dimensions (culture awareness, global mind set, learning from experiences, and developing and maintaining relationships) on the digital skills in Jordanian pharmaceutical companies at ($\alpha \leq 0.05$). This result confirms that digital skills are necessary for global leadership at all organizational levels, particularly among employees, as they improve the company's competencies. This result agrees with Gilli, et al., (2023) study which illustrated the positive impact of leaders who adapt digital leadership in their organizations, and take action to digitize their organizations, on employees who are affected by digitization and digital skills.

**3)** The study result revealed that the null hypothesis was rejected and the alternative hypothesis was accepted: There is a significant impact of the digital skills on the strategic partnerships with all its dimensions (private partnership, public partnership and industry partnership) in Jordanian pharmaceutical companies at ($\alpha \leq 0.05$). This result confirms the importance of having digital skills and their contribution to building and

developing strategic partnerships, and facilitates the relationship between partners and makes it more successful and effective. This result agrees with Trotsenko, (2019) study which showed the important impact and the need to use new digital tools that would enhance partnerships and make them more effective. Also this agrees with Tolstolesova, et al., (2021) study which demonstrated the importance of using digital tools and their important impact on the implementation of partnerships and their contribution to the interaction between partners and the reduction of partnership transaction costs.

**4)** The study result revealed that the null hypothesis was rejected and the alternative hypothesis was accepted: The digital skills partially mediate the impact of the global leadership competencies with all its dimensions (culture awareness, global mind set, learning from experiences, and developing and maintaining relationships) on the strategic partnerships with all its dimensions (private partnership, public partnership and industry partnership) in Jordanian pharmaceutical companies at ($\alpha \leq 0.05$).

The researcher believes that the reason for the existence of a partial mediate impact of digital skills between global leadership competencies and strategic partnerships with all its dimensions (private partnership, public partnership and industry partnership); is that these partnerships needs digital equipment and tools, which help leaderships to raise the level of companies and their employees and the success of this partnership. Moreover, all companies had a practice of technology in the past, and after Covid-19, they began to use digitization to a greater extent within companies. It can be said that in the past, digital skills did not have a significant impact, but now its partial impact has begun to appear in a greater and more positive way on the performance in companies.

## 5.3 Recommendations:

After discussing and presenting the results of the study, the researcher will present a set of recommendations that will provide benefit to Jordanian pharmaceutical companies and avoid the aspects with deficiency:

1. Emphasizing the importance of global leadership competencies and improving them by developing individuals' knowledge, experiences, and skills, which help in shaping the dimensions of global leadership.
2. Increasing competitiveness according to global competitive standards by developing cognitive capabilities and conducting studies to analyse the global environment.
3. Developing and building sustainable and positive relationships that help engage in the global market environment which increases the company's growth and expansion.
4. Improving the company's effectiveness by increasing the experience curve of employees, holding training courses, and encouraging them to learn from mistakes and unsuccessful experiences.
5. Conducting more studies on culture awareness, which leads to a greater understanding of cultural differences and developing the company's performance at the global level.
6. Focusing on the importance of digital skills and their presence in companies and keeping up with new developments, which lead to an increase in the degree of practice and mastery of these digital technologies.
7. Raising the level of digital skills among employees in the companies through training in digital technologies and continuous development of the software they

have, and by providing the necessary resources for the growth of digital operations.

8. Emphasizing the importance of strategic partnerships and working to improve them by updating legislation related to these partnerships, and adopting cooperation strategies with other companies, which leads to raising the economic level.
9. Motivation with the aim of reaching new markets and customers and expanding geographical growth through strategic partnerships to exchange resources and experiences, which benefits all parties of the partnership.
10. More effective practice of private partnership through increasing the cooperation with other companies to enhance employee skills and their competencies.
11. Seeking to achieve industrial integration in industry partnership through cooperation at the supply chain level between the companies of the sector.
12. The necessity of interest and investment in the relationship between global leadership competencies and digital skills in Jordanian pharmaceutical companies, because the more digital skills the leaders have, the more it reflects positively on the company and the employees, which increases their competencies.
13. The necessity of interest and investment in the relationship between digital skills and strategic partnerships in Jordanian pharmaceutical companies, because strategic partnerships become more successful and effective, when the use of digital technologies increase in these companies.
14. The necessity of interest and investment in the relationship between global leadership competencies and strategic partnerships in Jordanian pharmaceutical

companies, for the important role that these competencies play in the success or failure of these partnerships, overcoming difficulties, and achieving goals.

15. The necessity of interest and investment in the relationship between global leadership competencies and strategic partnerships, with the presence of digital skills as a mediator variable, this is due to the significant impact between global leadership competencies and the important role they play in the ability to make the right decisions regarding these partnerships, with digital skills as a mediator variable.

## 5.4 Future Studies:

The study suggests that the following future studies should be conducted:

1. Conduct more studies regarding the effect of global leadership competencies on strategic partnerships with different dimensions.
2. Implement the study on companies and organizations in other sectors in Jordan.
3. Conduct a study regarding the relationship between strategic thinking styles and public partnership with the presence of digital skills as a mediator variable.
4. Conduct a study regarding the relationship between strategic intelligence and industry partnership with the presence of digital skills as a mediator variable.

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# Appendices

## Appendix (1): Task facilitation letter (1):

جـامـعـة الـشـرق الأوسـط
MIDDLE EAST UNIVERSITY
Amman - Jordan

مكتب رئيس الجامعة
Office of the President

الرقم: د ر/خ/2163
التاريخ: 2023/7/24

السادة غرفة صناعة عمان المحترمون

تحية طيبة وبعد،

تهديكم جامعة الشرق الأوسط أطيب وأصدق الأمنيات، لغايات توفير وربط أسس التعاون مع خدمة المجتمع المحلي؛ نرجو التكرم بالموافقة على تقديم التسهيلات الممكنة **لطالب الماجستير بهاء منذر نجيب سهاونة**، ورقمه الجامعي (402010069)، المسجل في تخصص إدارة الاعمال / كلية الأعمال في جامعة الشرق الأوسط، والذي يتولى القيام بإعداد دراسة بحثية أكاديمية في رسالته المعنونه بـــ " كفايات القيادة العالمية في تطوير الشراكات الاستراتيجية من خلال المهارات الرقمية –دراسة ميدانية في شركات الأدوية في الاردن )"، علماً بأن المعلومات سيتم استخدامها لأغراض البحث العلمي وبصورة سرية.

وتفضلوا بقبول فائق الاحترام والتقدير...

رئيسة الجامعة

أ.د. سلام خالد المحادين

جامعة الشرق الأوسط
مكتب رئيس الجامعة
MEU
Office of the President
MIDDLE EAST UNIVERSITY

Tel. (+9626) 4790222 Fax: (+9626) 4129613 P.O.Box. 383 Amman 11831 Jordan e-mail: dir-presdepart@meu.edu.jo
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# Appendix (2): Task facilitation letter (2):

جـامـعـة الـشرق الأوسـط
MIDDLE EAST UNIVERSITY
Amman - Jordan

مكتب رئيس الجامعة
Office of the President

الرقم: د ر/خ/ 194
التاريخ: 2023/10/09

إلـى من يهمـــه الأمـــر

لغايات توفير وربط أسس التعاون مع خدمة المجتمع المحلي؛ أرجو التكرم بالموافقة على تقديم التسهيلات الممكنة لطالب الماجستير **بهاء منذر نجيب سهاونة**، ورقمه الجامعي (402010069)، المسجل في تخصص إدارة الاعمال/ كلية الأعمال في جامعة الشرق الأوسط، والذي يتولى القيام بإعداد دراسة بحثية أكاديمية في رسالته المعنونه بـــ " كفايات القيادة العالمية في تطوير الشراكات الاستراتيجية من خلال المهارات الرقمية –دراسة ميدانية في شركات الأدوية في الأردن"، علماً بأن المعلومات سيتم استخدامها لأغراض البحث العلمي وبصورة سرية.

**وتفضلوا بقبول فائق الاحترام والتقدير...**

رئيسة الجامعة

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## Appendix (3): List of questionnaire arbitrators:

| Name | Degree | University |
|---|---|---|
| Prof. Azzam Abou-Moghli | Professor | Middle East University |
| Prof. Nidal Alhawamdeh | Professor | Mutah University |
| Dr. Alhareth Abu Hussein | Associate Professor | Amman Arab University |
| Dr. Fayez Albadri | Associate Professor | Middle East University |
| Dr. Ibrahim Abu AlSondos | Associate Professor | American University In The Emirates |
| Dr. Mohammad Almaaitah | Associate Professor | Middle East University |
| Dr. Sameer Aljabaly | Associate Professor | Middle East University |
| Dr. Ziad ALshawabkeh | Associate Professor | Al- Balqa' Applied University |
| Dr. Almontaser Mohammad | Assistant Professor | Zarqa University |

- **The names of the experts were arranged according to scientific rank and alphabetic letters.**

# Appendix (4): Study Questionnaire:

جـــامـعـــة الـــشـرق الأوسـط
MIDDLE EAST UNIVERSITY
Amman - Jordan

**Dear Managers,**

After Greeting:

We are thrilled to invite you to take part in a questionnaire for a master's thesis titled "Global Leadership Competencies in Developing Strategic Partnerships through Digital Skills - A Field Study on Jordanian Pharmaceutical Companies", in order to complete the master's degree in the Business Administration Department, Middle East University, Amman-Jordan. As managers in the pharmaceutical industry, your insights and experiences are invaluable to the success of this research.

The objective of this study is to explore the global leadership competencies necessary for cultivating strategic partnerships in the pharmaceutical sector, with a specific emphasis on the role of digital skills. Your participation in this questionnaire will involve answering a series of questions related to your experiences, perspectives, and practices in developing strategic partnerships through digital skills.

From this standpoint, the researcher addresses you with the attached questionnaire, requesting that you read it carefully and then answer its paragraphs by placing a tick (✔ ) in the field that agrees with your opinion and corresponds to each paragraph.

While the researcher expresses his thanks for your cooperation, he would like to inform you that the information contained in the questionnaire will be used exclusively for scientific research purposes and will be treated with complete confidentiality, without anyone seeing it.

Thank you in advance for your valuable contribution.

**Sincerely:**

**Researcher: Baha' Monther Sahawneh** **Supervisor: Prof. Dr. Ahmad Ali Salih**

## Demographic Characteristics

Please choose the appropriate response box:

**Gender:**

□ Male □ Female

**Age group (years):**

□ Younger than 30 years □ 30 - less than 45years
□ 45 – less than 60 years □ 60 years & above

**Years of Experience:**

□ Less than 5 Years □ 5 – Less than 10 Years
□ 10 - Less than 15 Year □ 15 years & above

**Educational level:**

□ Bachelor's □ Master's □ PhD □ High Diploma

**Management level:**

□ Top-Level Management
□ Middle-Level Management
□ First-Level Management

**Independent variable (Global Leadership Competencies):** An integrated portfolio of knowledge, experiences, and skills that contribute to shaping the dimensions of global leadership in Jordanian pharmaceutical companies represented by (culture awareness, global mindset, learning from experiences, and developing and maintaining relationships), which will be measured by the degree of individual's response to the questionnaire items.

**المتغير المستقل (كفايات القيادة العالمية)** : محفظة متكاملة من المعارف والخبرات والمهارات التي تسهم في تشكيل أبعاد القيادة العالمية في شركات الأدوية الأردنية المتمثلة بـ (الوعي الثقافي، والعقلية العالمية، والتعلم من الخبرات ، وتطوير وإدامة العلاقات) والتي سوف تقاس بدرجة استجابة أفراد العينة على فقرات الاستبانة.

**Culture Awareness**: Competence focused on understanding the values and beliefs of different cultures. And through knowledge, awareness and acceptance of other cultures; people from different backgrounds can work together in greater integration.

**الوعي الثقافي:** كفاية تركز على فهم القيم والمعتقدات للثقافات المختلفة. ومن خلال المعرفة والوعي وقبول الثقافات الأخرى يمكن للأشخاص من خلفيات مختلفة العمل معًا بإندماج أكبر.

| NO. | Item | Strongly agree أوافق بشدة | Agree أوافق | Somewhat agree أوافق إلى حد ما | Disagree لا أوافق | Strongly disagree لا أوافق بشدة |
|---|---|---|---|---|---|---|
| 1 | The company's management believes that cultural diversity leads to enhance creativity. ترى إدارة الشركة بأن التنوع الثقافي يؤدي إلى تعزيز الإبداع. | | | | | |
| 2 | The company's management works to increase inclusion at work by encouraging acceptance of differences. تعمل إدارة الشركة على زيادة الاندماج في العمل من خلال تشجيع قبول الاختلافات. | | | | | |
| 3 | The company's management believes that understanding cultural differences is the basis of its ability to respond to global requirements. تعتقد إدارة الشركة أن فهم الاختلافات الثقافية أساس قدرتها على الاستجابة للمتطلبات العالمية. | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 4 | The company's management conducts studies on cultural awareness to develop its global performance.<br>تجري إدارة الشركة دراسات حول الوعي الثقافي لتطوير أدائها العالمي. | | | | | |

**Global mindset**: Competence concerned with achieving integration with the global environment through knowledge and experiences that enable the company to see the common patterns across countries and markets.

**العقلية العالمية:** كفاية تهتم بتحقيق الإندماج مع المحيط العالمي من خلال المعارف والخبرات التي تمكن الشركة من رؤية الأنماط المشتركة عبر البلدان والأسواق.

| NO. | Item | Strongly agree<br>أوافق بشدة | Agree<br>أوافق | Somewhat agree<br>أوافق إلى حد ما | Disagree<br>لا أوافق | Strongly disagree<br>لا أوافق بشدة |
|---|---|---|---|---|---|---|
| 5 | The company's management conducts studies to analyze the global environment in accordance with global competition standards.<br>تجري إدارة الشركة دراسات لتحليل البيئة العالمية وفق معايير التنافس العالمي. | | | | | |
| 6 | The company's management diagnoses the markets in which it competes before entering it.<br>تشخص إدارة الشركة الأسواق التي تنافس بها قبل دخولها. | | | | | |
| 7 | The company's management has the ability to determine the size with which it enters the global markets, large or small.<br>تمتلك إدارة الشركة القدرة على تحديد الحجم الذي تدخل به للأسواق العالمية كبيراً أم صغيراً. | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 8 | The company's management benefits from developing its knowledge capabilities in the global market.<br>تستفيد إدارة الشركة من تطوير قدراتها المعرفية في السوق العالمي. | | | | | |

**Learning from experiences**: Competence reflects the company's effectiveness in learning from experiences, recognizing mistakes, diagnosing them, learning from them, and extracting knowledge from unsuccessful experiences, so that errors and deficiencies are avoided in the following stages and experiments.

**التعلم من الخبرات:** كفاية تعكس فاعلية الشركة على التعلم من التجارب والاعتراف بالأخطاء وتشخيصها والتعلم منها واستخلاص المعرفة من التجارب غير الناجحة، وبحيث يتم تفادي الأخطاء ومواضع القصور في المراحل والتجارب التالية.

| NO. | Item | Strongly agree<br>أوافق بشدة | Agree<br>أوافق | Somewhat agree<br>أوافق إلى حد ما | Disagree<br>لا أوافق | Strongly disagree<br>لا أوافق بشدة |
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| 9 | The company's management conducts dialogue sessions to analyze feedback.<br>تجري إدارة الشركة جلسات حوار لتحليل التغذية الراجعة. | | | | | |
| 10 | The company's management prepares periodic reports that measure the level of customer satisfaction.<br>تقوم إدارة الشركة بإعداد تقارير دورية تقيس مستوى رضا الزبائن. | | | | | |
| 11 | The company's management follows the growth of the experience curve of its employees.<br>تتابع إدارة الشركة نمو منحنى الخبرة لدى موظفيها. | | | | | |
| 12 | The company's management emphasizes to its employees the importance of learning from previous mistakes and correcting them. | | | | | |

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| | تؤكِد إدارة الشركة على موظفيها على أهمية التعلم من الأخطاء السابقة وتصحيحها. | | | | | |

**Developing and maintaining relationships**: Competence focuses on building, developing and maintaining healthy and sustainable relationships so that they are constructive and have a positive impact on the parties involved in them in the global market environment, including other companies and government and community entities.

**تطوير وإدامة العلاقات:** كفاية تركز على بناء وتطوير وادامة علاقات صحيّة ومستدامة وبحيث تكون بناءة وذات أثر إيجابي على الأطراف المنخرطة بها في محيط السوق العالمي من شركات أخرى وجهات حكومية ومجتمعية.

| NO. | Item | Strongly agree أوافق بشدة | Agree أوافق | Somewhat agree أوافق إلى حد ما | Disagree لا أوافق | Strongly disagree لا أوافق بشدة |
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| 13 | The company's management enhances its sustainability in global markets through partnerships.<br>تعزز إدارة الشركة من استدامتها في الأسواق العالمية من خلال الشراكات. | | | | | |
| 14 | The company's management considers deepening cooperation with companies as a growth strategy.<br>تعتبر إدارة الشركة تعميق التعاون مع الشركات استراتيجية نمو. | | | | | |
| 15 | The company's management believes that partnerships with other companies are a source to enrich its experiences.<br>ترى إدارة الشركة بأن عقد الشراكات مع الشركات الأخرى مصدر لاثراء خبراتها. | | | | | |
| 16 | The company's management works to sustain its relationships with community entities.<br>تعمل إدارة الشركة على استدامة علاقاتها مع الجهات المجتمعية. | | | | | |

**Dependent variable (Strategic Partnerships)**: It is a partnership that extends over a long term, between two or more entities, from the same country or from different countries, which achieves returns and benefits for all parties involved.

**المتغير التابع (الشراكات الإستراتيجية)**: هي الشراكة التي تمتد على مدى طويل الأمد، بين جهتين أو أكثر، من نفس الدولة أو من دول مختلفة، والتي تحقق العوائد والفائدة لجميع الأطراف الداخلة بها.

**Private Partnership**: The partnership held by private companies among themselves, whether from the same country or from different countries, in the field of planning, developing and exchanging experiences, skills and products, in a way that benefits all parties of the partnership.

**الشراكة الخاصة**: هي الشراكة التي تعقدها الشركات الخاصة فيما بينها، سواء أكان من نفس الدولة أو من دول مختلفة، في مجال التخطيط وتطوير وتبادل الخبرات والمهارات والمنتجات، وبما يعود بالفائدة على أطراف الشراكة.

| NO. | Item | Strongly agree أوافق بشدة | Agree أوافق | Somewhat agree أوافق إلى حد ما | Disagree لا أوافق | Strongly disagree لا أوافق بشدة |
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| 17 | The company's management cooperates with other companies operating in the field with regard to training and transfer of expertise. تتعاون إدارة الشركة مع الشركات الأخرى العاملة في المجال فيما يتعلق بالتدريب لتبادل الخبرات. | | | | | |
| 18 | The company's management adopts cooperation strategies with other companies. تتبنى إدارة الشركة استراتيجيات التعاون مع الشركات الاخرى. | | | | | |
| 19 | The company's management considers cooperation with other companies as a way to enhance the skills of employees in all companies. تعتبر إدارة الشركة التعاون مع الشركات الأخرى وسيلة لتعزيز مهارات الموظفين في جميع الشركات. | | | | | |
| 20 | The company's management cooperates with other companies to obtain new opportunities. | | | | | |

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| | تتعاون إدارة الشركة مع الشركات الأخرى للحصول على فرص جديدة. | | | | | |
| 21 | Partnership with other companies enhances the level of specialization in our company.<br>تعزز الشراكة مع الشركات الأخرى من مستوى التخصصية لدى شركتنا. | | | | | |

**Public Partnership**: It is a form of organized cooperation between partners from the public and private sectors in planning, developing and using infrastructure facilities and includes sharing costs, benefits, risks, resources and responsibilities.

**الشراكة العامة**: هي شكل من أشكال التعاون المنظم بين الشركاء من القطاعين العام والخاص في تخطيط وتطوير واستخدام مرافق البنية التحتية كما وتتضمن المشاركة في التكاليف والفوائد والمخاطر والموارد والمسؤوليات.

| NO. | Item | Strongly agree<br>أوافق بشدة | Agree<br>أوافق | Somewhat agree<br>أوافق إلى حد ما | Disagree<br>لا أوافق | Strongly disagree<br>لا أوافق بشدة |
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| 22 | The company's management works to cooperate with governments on the level of legislation related to our industry.<br>تعمل إدارة الشركة على التعاون مع الحكومات على مستوى التشريعات المتعلقة بصناعتنا. | | | | | |
| 23 | The company's management seeks to fulfill its commitments with the public sector with high reliability.<br>تسعى إدارة الشركة للإيفاء بإلتزاماتها مع القطاع العام بموثوقية عالية. | | | | | |
| 24 | The government provides support for the development of industry in companies.<br>توفر الحكومة الدعم لتطوير الصناعة في الشركات. | | | | | |

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| 25 | The company's management works to cooperate with the public sector, which contributes to reducing economic risks.<br>تعمل إدارة الشركة على التعاون مع القطاع العام مما يساهم في تقليل المخاطر الاقتصادية. | | | | | |
| 26 | The company's management considers establishing partnerships with the public sector as part of its social responsibility.<br>تعتبر إدارة الشركة إقامة شراكات مع القطاع العام جزءاً من المسؤولية الإجتماعية. | | | | | |

**Industry Partnership**: It is a collaborative partnership between two or more parties made up of stakeholders in the industry with the aim of achieving benefit for both parties. It is motivated by the desire to exchange resources, knowledge and experience with the aim of reaching new markets and customers.

**الشراكة الصناعية**: هي شراكة تعاونية بين طرفين أو أكثر مكونة من أصحاب المصلحة في الصناعة بهدف تحقيق الفائدة لكلا الطرفين. ويكون الدافع وراءها هو الرغبة في تبادل الموارد والمعرفة والخبرة بهدف الوصول إلى أسواق وعملاء جدد.

| NO. | Item | Strongly agree<br>أوافق بشدة | Agree<br>أوافق | Somewhat agree<br>أوافق إلى حد ما | Disagree<br>لا أوافق | Strongly disagree<br>لا أوافق بشدة |
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| 27 | The company's management views sharing their technology capabilities with other companies as an improvement in digital readiness.<br>تنظر إدارة الشركة إلى مشاركة قدراتها التكنولوجية مع شركات أخرى بأنها تطوير للجاهزية الرقمية. | | | | | |
| 28 | The company's management believes | | | | | |

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| | that the exchange of products developed in a company will benefit all companies in the industry.<br>ترى إدارة الشركة بأن تبادل المنتجات المطورة في شركة ما سيفيد جميع الشركات العاملة في الصناعة. | | | | | |
| 29 | The company's management seeks to create cooperation at the level of supply chains between the companies of the sector to achieve industrial integration.<br>تسعى إدارة الشركة إلى خلق التعاون على مستوى سلاسل التوريد بين شركات القطاع لتحقيق التكامل الصناعي. | | | | | |
| 30 | The company's management builds its industrial partnerships on the basis of the market reputation index of other parties.<br>تبني إدارة الشركة شراكاتها الصناعية على أساس مؤشر السمعة السوقية للأطراف الاخرى. | | | | | |
| 31 | The company's management seeks to develop its global partnerships to expand geographical growth.<br>تسعى إدارة الشركة لتطوير شراكاتها العالمية لتوسيع النمو الجغرافي. | | | | | |

**Mediator variable (Digital Skills):** The degree of mastery and practice of using and interacting with digital technologies and the ability to apply correctly and continuously learn to keep up with new developments.

**المتغيّر الوسيط (المهارات الرقمية)** : هي درجة إتقان وممارسة الاستخدام والتفاعل مع التقنيات الرقمية والقدرة على التطبيق الصحيح والتعلم المستمر لمواكبة التطورات الجديدة.

| NO. | Item | Strongly agree<br>أوافق بشدة | Agree<br>أوافق | Somewhat agree<br>أوافق إلى حد ما | Disagree<br>لا أوافق | Strongly disagree<br>لا أوافق بشدة |
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| 32 | The company's management develops the organizational capabilities to overcome the problems facing efforts to raise the digital skills of employees.<br>تقوم إدارة الشركة بتطوير القدرات التنظيمية للتغلب على المشكلات التي تواجه جهود رفع المهارات الرقمية للموظفين. | | | | | |
| 33 | The company's management adheres to the standards of digital skills governance.<br>تلتزم إدارة الشركة بمعايير حوكمة المهارات الرقمية. | | | | | |
| 34 | The company's management determines the administrative regulations that must be adhered to in order to enhance digital skills.<br>تحدد إدارة الشركة اللوائح الإدارية التي يجب الالتزام بها لتعزيز المهارات الرقمية. | | | | | |
| 35 | The company's management is working on attracting digital skills for employees.<br>تعمل إدارة الشركة على استقطاب المهارات الرقمية للموظفين. | | | | | |

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| 36 | The company's management has appropriate digital skills.<br>تمتلك إدارة الشركة مهارات رقمية مناسبة. | | | | | |
| 37 | The company's management works according to an integrated plan to develop digital skills.<br>تعمل إدارة الشركة وفق خطة متكاملة لتطوير المهارات الرقمية. | | | | | |
| 38 | The company's management monitors the progress of the digitized processes.<br>تقوم إدارة الشركة بمراقبة سير العمليات الرقمية. | | | | | |
| 39 | The company's management provides the necessary resources for the growth of digital operations.<br>توفر إدارة الشركة الموارد اللازمة لنمو العمليات الرقمية. | | | | | |
| 40 | The company's management is interested in continuous training in digital technologies.<br>تهتم إدارة الشركة بالتدريب المستمر على التقنيات الرقمية. | | | | | |
| 41 | The company's management updates the digital equipment.<br>تُحَدِث إدارة الشركة المعدات الرقمية. | | | | | |
| 42 | The company's management motivates digital skills by linking performance to results.<br>تُحَفِز إدارة الشركة المهارات الرقمية باستخدام أسلوب ربط الأداء بالنتائج. | | | | | |

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| 43 | The company's management has indicators that reflect the achievements of services provided digitally.<br>تمتلك إدارة الشركة مؤشرات تعكس إنجازات الخدمات المقدمة رقمياً. | | | | | |
| 44 | The company's management is constantly developing the approved digital software.<br>تقوم إدارة الشركة بتطوير البرمجيات الرقمية المعتمدة لديها بإستمرار. | | | | | |
| 45 | The company's management emphasizes the integration of digital skills among all departments.<br>تؤكد إدارة الشركة على التكامل في المهارات الرقمية بين جميع الأقسام. | | | | | |
| 46 | The company's management evaluates digital skills periodically.<br>تُقيّم إدارة الشركة المهارات الرقمية دورياً. | | | | | |
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