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**The Impact of Information Technology on the
Organizational Performance at Insurance Companies in
Palestine using the Balanced Scorecard**

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**The Impact of Information Technology on the
Organizational Performance at Insurance Companies in
Palestine using the Balanced Scorecard**

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Thesis Approval

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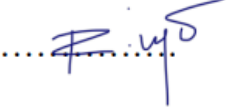
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Dedication

This thesis is dedicated to the many people who have supported and inspired me throughout this journey.

To my beloved spouse, Heba, whose unwavering love, patience, and support have been my greatest source of strength. Your belief in me and your constant encouragement have made this achievement possible. I am deeply grateful for your understanding and sacrifices.

To our precious baby, Layal, who, even at just 10 months old, has brought immense joy and purpose to my life. Your smiles and innocence have been a beacon of light during this challenging yet rewarding journey.

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This work stands as a testament to the collective influence and unwavering support of all these wonderful people in my life. Thank you for being a part of this journey and for believing in my dreams.

With deepest gratitude,

Asem Hilmi Mohammad Shihadeh Al-Natsheh

Declaration

I, Asem Helmi Mohammed Shehada Al Natsha, certify that:

This thesis has been substantially accomplished during enrolment in the degree.

This thesis does not contain material that has been accepted for the award of any other degree or diploma in my name, in any university or other tertiary institution.

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Asem Helmi Mohammed Shehada Al Natsha

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Lastly, I appreciate the resources and environment provided by Al-Quds University.

With gratitude,

Asem Hilmi Mohammad Shihadeh Al-Natsheh

أثر تكنولوجيا المعلومات على الأداء التنظيمي في شركات التأمين في فلسطين وقياسه بواسطة بطاقة الأداء المتوازن

اعداد: عاصم حلمي محمد شحاده المنتشه

اشراف: د. أحمد حرز الله

الملخص

تتناول هذه الأطروحة أثر تكنولوجيا المعلومات على الأداء التنظيمي لشركات التأمين في فلسطين وقياسه بواسطة بطاقة الأداء المتوازن بأبعادها الخمسة: الأداء المالي، رضا العملاء، العمليات الداخلية، التعلم والنمو، والمسؤولية الاجتماعية.

تستخدم الدراسة منهجًا كميًا، حيث تم توزيع بيانات كمية تشمل استبيانات على الموظفين والمدراء في شركات التأمين الفلسطينية. تم اختبار فرضيات الدراسة باستخدام الأساليب الإحصائية لدراسة العلاقات بين ابعاد تكنولوجيا المعلومات (الأجهزة، البرمجيات، قواعد البيانات، المهارات، وشبكات الاتصال) الاداء التنظيمي بواسطة بطاقة الأداء المتوازن.

تشير النتائج إلى أن تكنولوجيا المعلومات تعزز بشكل كبير الأداء التنظيمي عبر جميع أبعاد بطاقة الأداء المتوازن وتساهم في تحسين الأداء المالي من خلال تقليل التكاليف وزيادة الكفاءة و يزداد رضا العملاء بفضل تحسين تقديم الخدمات وقنوات الاتصال. بالنسبة الى العمليات الداخلية فهي تستفيد من تبسيط العمليات وتحسين تدفق المعلومات. و يُظهر بُعد التعلم والنمو أن تكنولوجيا المعلومات تعزز التحسين المستمر وتطوير المهارات بين الموظفين. كما تؤثر تكنولوجيا المعلومات بشكل إيجابي على المسؤولية الاجتماعية من خلال تحسين إدارة البيانات والشفافية.

تخلص الدراسة إلى أن الاستخدام الامقل لتكنولوجيا المعلومات ضروري لتحقيق الميزة التنافسية واستدامة شركات التأمين في فلسطين. وتشمل التوصيات زيادة الاستثمار في البنية التحتية لتكنولوجيا المعلومات، التدريب المستمر للموظفين، واعتماد نهج استراتيجي لتكامل تكنولوجيا المعلومات للاستفادة منها.

توفر هذه الدراسة رؤى قيمة لصانعي السياسات والمدراء وأصحاب المصلحة في قطاع التأمين، وتسلط الضوء على أهمية تكنولوجيا المعلومات في تحقيق أداء تنظيمي متفوق وتقدم خطوات عملية لتعزيز قدرات تكنولوجيا المعلومات داخل المنظمات.

Abstract

This thesis examines the impact of information technology (IT) on the organizational performance of insurance companies in Palestine using the Balanced Scorecard approach. It measures performance through its five dimensions: financial performance, customer satisfaction, internal processes, learning and growth, and social responsibility.

The research employs a quantitative method approach through the distribution of surveys to employees and managers at Palestinian insurance companies. The study's hypotheses are tested using statistical methods to investigate the relationships between IT components (hardware, software, databases, skills, and communication networks) and organizational performance metrics defined by the Balanced Scorecard.

Findings indicate that IT significantly enhances organizational performance across all Balanced Scorecard dimensions. IT contributes to improved financial performance through cost reduction and efficiency gains. Customer satisfaction increases due to enhanced service delivery and communication channels. Internal processes benefit from streamlined operations and better information flow. The learning and growth dimension shows that IT fosters continuous improvement and skill development among employees. IT also positively impacts social responsibility through better data management and transparency.

The study concludes that the effective implementation of IT is crucial for the competitive advantage and sustainability of insurance companies in Palestine. Recommendations include increasing investment in IT infrastructure, continuous training for staff, and adopting a strategic approach to IT integration to leverage its benefits fully.

This research provides valuable insights for policymakers, managers, and stakeholders in the insurance sector, highlighting the importance of IT in achieving superior organizational performance and suggesting practical steps for enhancing IT capabilities within organizations.

Keywords

Information Technology, Organizational performance, Insurance companies, balanced Scorecard, Palestine.

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Chapter I

Introduction

1.1 An Overview of the Topic

The past two decades have seen the increasing strength of information technologies. Many variables appeared in the business environment as a result of the rapid development in the field of information and communication technology and computerized systems, which has reformed the internal and external environment of the organizations. With the beginning of the information revolution and the entry of new information horizons, it has become difficult to memorize, collect, arrange, store information, and refer to it in primitive ways. Therefore, it has been necessary to use modern methods to deal with it. Nowadays, Information technology is seen as a significant part of any business plan in processing and managing information by dealing with the computer and its programs as alternative solutions. It is important as it contains the application of computers and telecommunications such as hardware and software that store, save, study, and transmit data and information needed for daily basis use (John, 2018).

In this means, to run businesses in the right way, Information technology requires computer applications and a broad array of media communication and devices that will link IT to the different organizations of the world. This is linked through voice mails, e-mails, voice and video meetings, the internet, phones, fax machines, and so on. It gives the employees the chance to maintain records of their clients of various companies. Overall, it promotes efficiency, innovation, productivity, and profit improvement in the organization (Dewett and Jones, 2001).

All business organizations seek to create a work environment based on boosting organizational performance within the organization, whether in the old or modern ways, through functional integration between the internal and external departments of the institution. Thus, organizational

performance is the organization's ability to use the available resources efficiently to obtain homogeneous outputs within the previously planned goals. In this research, we will look at how IT can affect organizational performance using the balanced scorecard with its five interlocking discourses: financial dimension, customer dimension, Learning and Growth dimension, social responsibility, and Internal business dimension. The balanced scorecard is an integrated system for strategic management that contributes to achieving specific goals and objectives (Gallo, Mihalcova, Timkova, and Tomcikova, 2018).

The service sector has been one of the sectors that dramatically changed with the rapid technological advancements. Technological developments have overcome the constraints of time, place, and age. In the past, people had to travel long distances to seek out knowledge and they were not able to connect to their environment and tools easily. Currently, information is available at the click of a mouse. Every Employee can access and learn from the great stores of knowledge from all over the world. Thus, information technology has an enormous impact on the insurance industry's Productivity and efficiency.

The insurance sector is one of the most important sectors in Palestine as it works on dealing with the national economy's risks through the protection of the lives and property of individuals and institutions as well as the contribution to economic development by compensating the insured against any damage. The insurance sector in Palestine had a lack of management at its earliest stages until the establishment of the Palestine Capital Market Authority, which became responsible for the supervision of the insurance sector.

1.2 Problem of the Study

The entry of information technology into the organizational performance of many businesses has led to its development and growth. Despite the use of technology in some

departments of Insurance Companies, there is still a scarcity of its use in many administrative and organizational matters, which are circulated by traditional methods between different departments affecting its overall organizational performance, especially in the customer department. We often see there are complaints from customers regarding the slow progress of the administrative process. These challenges often come from the low levels of technology application, lack of trust between customers and service providers, and the lack of emphasis on services and products that meet customer needs as was also clear in the study Qanbar and Abbas titled “Obstacles to The Application of Electronic Management In Iraqi Universities” (2019). This study has revealed numerous technical and human obstacles in implementing information technology, which will be explored further in the literature review chapter. Thus, this requires time and effort, apart from the physical and psychological exhaustion at this stage, which can be dispensed by technology. Therefore, it is important to look at the adoption of information technology in the insurance companies in Palestine and its effects on administrative and management decision-making as well as the overall performance of the company. The best way to measure this performance might be through the balanced scorecard dimensions, which yields solutions to these problems.

1.3 Significance of the Study

The importance of the study lies in raising the organizational performance of Insurance Companies in Palestine through the intervention of technology and its attempt to abandon some of the traditional administrative methods that limit the development of its services. As for the theoretical and scientific importance, the subject of this study has not received full attention in the field of Palestinian companies. Additionally, there is a lack of literature and recent studies on this topic within the Palestinian context. Consequently, this study is significant as it fills a gap in

existing research. The findings will provide valuable insights and serve as a useful reference for researchers and businesses interested in this field.

As for the practical importance, the results of this study can help decision-makers and managers at Insurance Companies to identify the importance of the impact of information technology on organizational performance through its five dimensions and how to use the balanced scorecard to measure and identify obstacles to the application of technology.

1.4 Objectives of the Study

Main Objective: To recognize the impact of information technology on organizational performance at Insurance companies using the balanced scorecard. Accordingly, the following Sub-objectives are set:

1. Describing the reality of the application of Information Technology at Insurance Companies in Palestine from the participants' perspective.
2. Describing the reality of Organizational Performance at Insurance Companies in Palestine using the Balanced Scorecard from the participants' perspective.
3. Examining the presence of significant relationships between Information Technology and the organizational performance measured through the Balanced Scorecard at Insurance Companies in Palestine.
4. Investigating the impact of information technology on the financial dimension, customer dimension, internal operation dimension, education & growth dimension, and social responsibility dimension of organizational performance at Insurance Companies in Palestine.

5. Examining the presence of significant statistical differences between the means of the participants' responses regarding Information Technology at the Palestinian Insurance Companies upon the demographic factors (Gender, Educational Degree, Age, Job Title, Years of Experience, and the Insurance Company).
6. Examining the presence of significant statistical differences between the means of the participants' responses regarding Organizational Performance using the Balanced Scorecard at the Palestinian Insurance Companies upon the demographic factors (Gender, Educational Degree, Age, Job Title, Years of Experience, and the Insurance Company).

1.5 Questions of the Study

Main question:

What is the impact of information technology on organizational performance at Insurance companies in Palestine using the balanced scorecard?

Sub-questions:

1. What is the reality of the application of Information Technology at Insurance Companies in Palestine from the participants' perspective?
2. What is the reality of Organizational Performance at Insurance Companies in Palestine using the Balanced Scorecard from the participants' perspective?
3. Are there significant relationships between Information Technology and the organizational performance measured through the Balanced Scorecard at Insurance Companies in Palestine?

4. What is the impact of information technology on the financial dimension, customer dimension, internal operation dimension, education & growth dimension, and social responsibility dimension of organizational performance at Insurance Companies in Palestine?
5. Are there significant statistical differences between the means of the participants' responses regarding Information Technology at the Palestinian Insurance Companies upon the demographic factors (Gender, Educational Degree, Age, Job Title, Years of Experience, and the Insurance Company)?
6. Are there significant statistical differences between the means of the participants' responses regarding Organizational Performance using the Balanced Scorecard at the Palestinian Insurance Companies upon the demographic factors (Gender, Educational Degree, Age, Job Title, Years of Experience, and Insurance Company)?

1.6 Hypothesis of the Study

The first main Hypothesis: "There is no statistically significant impact of information technology at the significance level ($\alpha \leq 0.05$) on organizational performance at Insurance Companies in Palestine using the balanced scorecard and its dimensions (Financial, Customer, Internal Operations, Education & Growth, and Social Responsibility dimensions)".

The second main hypothesis: "There is no significant relationship at ($\alpha \leq 0.05$) between Information Technology dimensions (Hardware & Software, Database Accuracy, Skills & Experience, and Communication Network) and the organizational performance measured through the Balanced Scorecard dimensions (Financial, Customer, Internal Operations, Education & Growth, and Social Responsibility dimensions)".

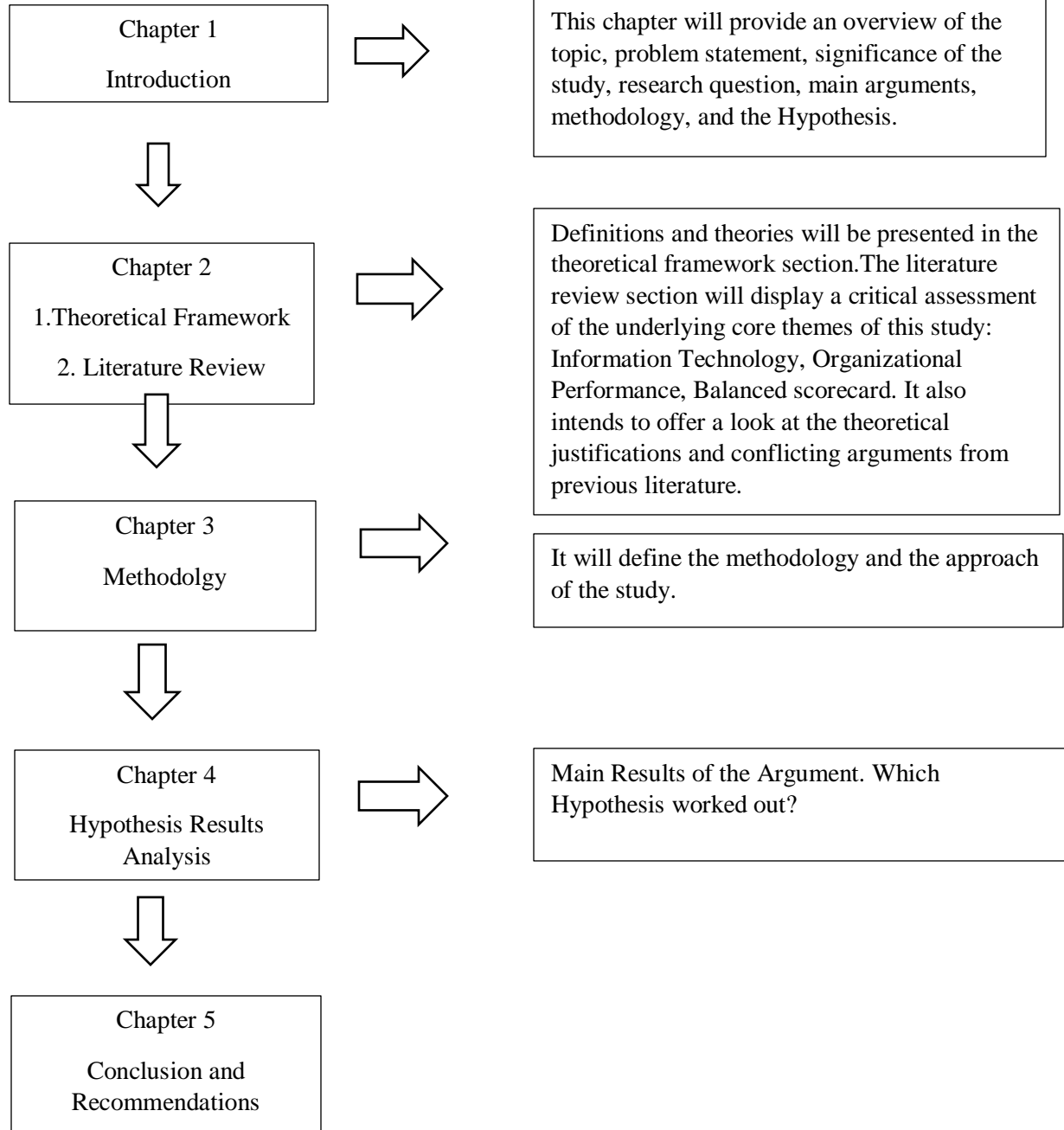
The Third main hypothesis: "There are no statistical differences indication at the significance level ($\alpha \leq 0.05$) between the means of the participants' responses regarding Information Technology upon the demographic factors (Gender, Educational Degree, Age, Job Title, Years of Experience, and the Insurance Company)".

The Fourth main hypothesis: "There are no statistical differences indication at the significance level ($\alpha \leq 0.05$) between the means of the participants' responses regarding Organizational Performance using the Balanced Scorecard upon the demographic factors (Gender, Educational Degree, Age, Job Title, Years of Experience, and the Insurance Company)".

1.7 Limits of the Study

- ❖ Objective limits: The study will be limited to the topic of the Impact of Information Technology on Insurance Companies' Organizational Performance through the Balanced Scorecard measurement.
- ❖ Methodology Limits: The study will be limited to collecting data from administrators and employees at insurance companies through distributing a questionnaire.
- ❖ Time limits: Academic Year 2023-2024
- ❖ Spatial limits: The study is limited to Insurance Companies in Palestine.
- ❖ Human ancestry: The study is limited to all employees and managers inside the company.

1.8 Structure of the Study



Chapter II

Theoretical Framework and Literature Review

Theoretical Framework

This section aims to identify the three main themes in this research: Information Technology, Organizational Performance, and the Balanced Scorecard. Accordingly, the purpose of this section is to study, analyze, and develop a clear understanding of the core themes of this research. In this section, the concept, benefits, and obstacles of Information Technology will be examined. In addition to identifying the main base of the organization's success, which is the measurement using the Balanced Scorecard. This takes us to develop a clear definition of the Balanced Scorecard, its importance, and its obstacles. Most importantly, the section will examine and evaluate the Vision and Strategy of the Balanced Scorecard from the Financial perspective, Customer perspective, Internal business perspective, Social Responsibility, and Learning and Growth perspective.

Section I Information Technology and Organizational Performance

2.1 The Concept of Information Technology

Information can be best described as the knowledge communicated or established concerning a fact, a study, etc. It is something that carries meaning depending on its context. It is something that could be “symbolized, unitized, stored, and processed as a separate entity” (Bakopoulos, 1985,2). Following this definition, Technology could be greatly defined as the computer-based systems that generate, develop, store, retrieve, secure, exchange, transform, and analyze any kind of information. In this means, Information Technology has been defined as the “set of non-human resources dedicated to the storage, processing, and communication of information, and the way in which these resources are organized into a system capable to perform

a set of tasks” (Bakopoulos, 1985, 7). Information is considered a significant factor in any organizational system and environment. Thus, Bakopoulos claims that Information Technology can have a great positive impact on organizational rationality and performance.

Information Technology plays an important role nowadays in our daily life tasks as it incorporates the communication of media and devices that link information systems and people such as the internet, voicemails, emails, car phones, and fax machines. Information Technology could also be considered as the backbone of most businesses and organizations. It is a vital component needed for any company to operate efficiently. For instance, hardware and software programs are essential to store, retrieve, and transform information. Computers, network servers, scanners, and printers are also crucial tools for serving many purposes in the company. For instance, platforms such as Skype, zoom, and Google Meet allow businesses to connect remotely with international partners, reducing costs related to bringing clients to meet in person. In addition, IT will enable businesses to store, share, and back up official business documents and files. It also protects information from unauthorized entities, which maintains a safeguarded and proper business system (Zimmer, 2019).

2.2 Information Technology and Organizational Performance

As I have explained earlier, Information Technology plays a crucial role in facilitating the operations of any business plan. Dewett and Jones (2001) provide an overview of the importance of information technology and assess its role in the organizational characteristics and outcomes of the company. The paper has identified five categories of organizational outcomes from the use of information technology. First, the increase of efficiency resulted from the improvement in the rapidity of information processing and storing in addition to easy communications. Also, better collaboration and coordination promote innovation in bringing new problem-solving ideas into

use. Third, the improvement of the initial base of knowledge in the organization which employees can draw from when they engage in either problem or decision-making. This allows employees to work and collaborate and improves their communication abilities. And lastly, the improved boundary-spanning capabilities as employees tend to access new sources of information.

Moreover, Croteau and Beregron (2001) stress the importance of information technology in helping the organization to gain a competitive advantage. They also highlight the effectiveness of software developments in the organization and the contribution of information technology to the management of communication networks. In addition, Jacks, Palvia, Schilhavy, and Wang (2011) have demonstrated the substantial effects of information technology on the profitability and productivity of the organization and its contribution to the firm's business value and competitive advantage.

2.3 The Effects of Information Technology on Organizations.

Electronic management significantly enhances the level of services in insurance companies by facilitating the process of obtaining services and information for both employees and customers at any time. It reduces administrative difficulties by streamlining transaction stages and cutting costs, as individuals can access information and data via the Internet or the institution's electronic page without needing to visit in person.

Employees benefit from a unified system that interacts with all entities within the institution, increasing interdependence between employees and administration and ensuring the efficient management of all resources. This approach also improves accuracy and speed in completing services and transactions for both employees and customers, facilitates communication

with other organizations and government agencies, and boosts the administration's efficiency in dealing with other institutions.

Furthermore, information technology helps attract new customers, maintains the confidentiality of information, and minimizes the risk of losing it, particularly concerning calendars, records, and functional reports. Lastly, it eliminates the paper archive system, replacing it with a flexible electronic archiving system that allows for easy editing of documents. (Alhasanat, 2011, 34-36).

2.4 Obstacles to the Application of Information Technology in Companies.

Numerous factors hinder the effective utilization of Information Technology (IT) in businesses, particularly in insurance companies. These obstacles can be categorized into several aspects. Firstly, administrators do not have computer knowledge responsible for introducing this technology within organizations (Sanadi, 2002, p. 14). Additionally, many institutions have weak infrastructure and are not adequately prepared to receive such technology. Poor communication network infrastructure in some areas further exacerbates this issue (Al Hudrumi, 2008, p. 101). The absence of sufficient training programs in modern technology also impedes progress (Jabr, 2002, pp. 201-202). High costs associated with software and electronic devices, as well as the expense of using the World Wide Web, present significant financial barriers. Furthermore, there is often a lack of financial resources allocated to the necessary infrastructure for implementing electronic management, such as establishing networks, linking websites, and developing hardware and software programs (Mufti, 2004, p. 23).

2.5 The Cornerstone of the Company's Success

Gallo, Mihalcova, Timkova, and Tomcikova (2018) assert that Information technology is an important base for the organization's success and its capability to produce efficient and

innovative ideas. They indicate that the successful performance of any organization can be measured through the balanced scorecard financial and non-financial indicators. These indicators are introduced as the Financial perspective, Customer perspective, Internal processes perspective, and Learning/Growth perspective. The financial perspective is mainly based on the revenues, expenses, incomes, and assets of the firm. The customer perspective determines the customer's satisfaction and retention out of the firm's service. The internal processes are based on internal decisions and resource allocation in the company. And finally, they indicate that the learning and growth perspective focuses on the education and skills of its employees (35). The Social Responsibility perspective is a new intruder on the previous four dimensions, which institutions are concerned with greatly because of its high importance. It is mainly based on the contribution to volunteering companies to achieve development due to ethical and social considerations (Al-Sakarna, 2009, 162).

Section II The Balanced Scorecard

2.6 The Concept of Balanced Scorecard

Scholars, researchers, and experts have criticized the use of traditional financial performance measures¹ considering them as inadequate tools for decision-making in today's business strategies and plans. Instead, they asked for a balance in performance measurement systems and to incorporate non-financial measures as well. As a result, in 1992, Kaplan and Norton introduced the concept of the Balanced Scorecard and it has been implemented and adopted around the world as a combination of financial and non-financial measures of performance (Malina, 2013, 901).

¹ post costs, profits, return on investment.

The Balanced Scorecard is considered an important device of strategic planning and management system that is applied to enable organizations to clarify their vision and strategy and translate them into action by implementing the business strategy or plan. The Balanced Scorecard should be taken into consideration while implementing any business plan as it will decide the future results for the company. It is determined by the uniqueness and strategy of each organization as well as the solutions for management through initiatives or events. It gives the employees a clearer and more detailed structure of the company's goals as well as provides feedback and motivation for strategic improvements in some critical areas in the company (Terziv, 2020). In other words, it is the tool used to determine whether the company is meeting its objectives and moving towards the successful implementation of strategy or not.

2.7 The Vision and Strategy of the Balanced Scorecard

The balanced scorecard suggests that we should view and assess the organization from four perspectives, develop metrics, collect data, and analyze it in relation to each of these perspectives. Kaplan and Norton describe that the financial measures are inadequate, and companies must consider future value through investment in customers, suppliers, employees, technology, and innovation. (Reda, Ali, and Jassim, 2019, 505-506). A small description for each dimension will be shown in Figure 1.

- **The Learning & Growth Perspective**

This perspective embraces employee training and corporate attitudes related to individual and corporate self-improvement. To achieve the requested vision of the business plan, one must ask how we can change and improve our skills and reach high levels of achievement. This perspective sets out the preferred skills needed for the growth of the company. This is evident as employees are the main resource for the company's

development and achievements. Thus, the company should provide training to its employees and ensure that the information is available to the employees. It is argued that their efficient results depend on the skills of the employee in addition to the rewards given to them (Al-Sakarna, 2009, 162).

- **The Business Process Perspective**

This perspective refers to the internal business perspective. It allows the managers to recognize how well their business is running, and whether the products and services adapt to the customer requirements. This is called the innovation process as it works to establish and provide the products and needs that satisfy the consumer. In addition to taking into consideration the operations part as they can decide to improve the quality of certain products and resources and meet the required deadlines. It is basically about what we can do to satisfy our stakeholders and customers, and where to excel in the business process (Al-Sakarna, 2009, 162).

- **The Customer Perspective**

This perspective addresses the importance of customer satisfaction in any business. That is to say, if customers are not satisfied, they will find other suppliers and businesses that could offer them the things that meet their needs. If the company has poor performance in this area thus this suggests a future decline. Therefore, the company must focus on customer satisfaction and profitability (Al-Sakarna, 2009, 162).

- **The Financial Perspective**

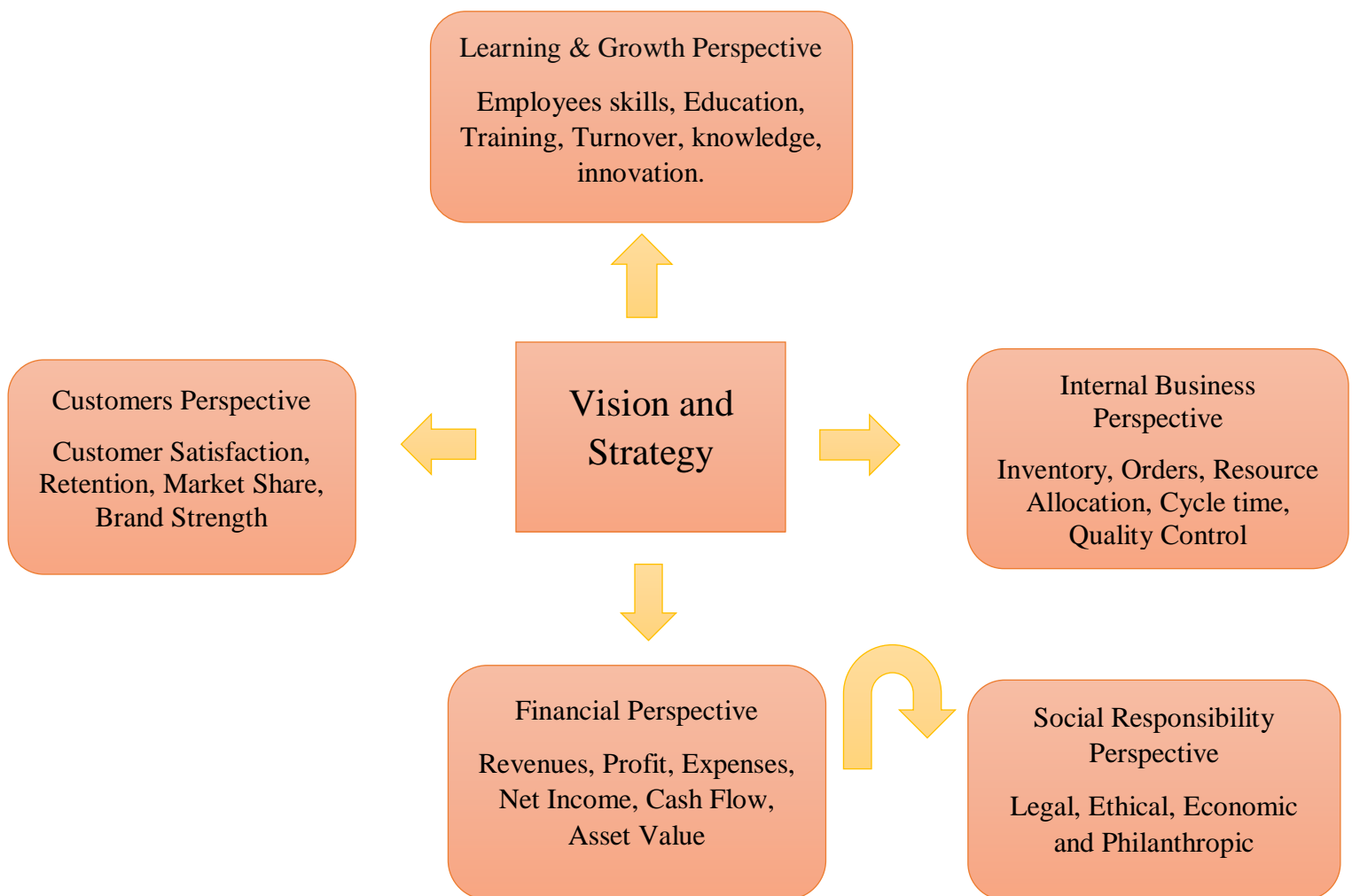
This perspective measures the strategic profitability of the company in addition to revenue expenses, net income, cash flows, sales growth, returns, and asset value. The

financial status of the company depends on the income and returns on the capital that they achieve (Al-Sakarna, 2009, 162).

- **The Social Responsibility Dimension**

Social Responsibility depends on the good initiatives of businessmen without legally binding procedures, and therefore social responsibility is achieved through persuasion and education. In addition to reaching development while taking into consideration the ethical and social issues (Al-Sakarna, 2009, 162).

Figure 1: Vision and Strategy of the Balance Scorecard Dimensions



2.8 The Importance of the Balanced Scorecard

The balanced scorecard serves as the cornerstone of the organization's current and future success by linking long-term strategies with short-term goals. It enables the identification and diagnosis of new areas for improvement, helping the organization achieve both consumer and organizational goals practically. The card focuses on enhancing performance and acts as an umbrella for the diverse aspects of the organization's programs, including quality, redesign, and customer service. It clarifies the strategic vision, improves performance, sets a sequence of goals, and links rewards with performance standards. Additionally, it maintains financial standards as a crucial element of employee and management performance, while highlighting a broader, interactive set of measures that encompass consumers, internal operations, employees, and system performance to ensure long-term financial success (Reda, Ali, and Jassim, 2019, p. 507).

2.9 Features of the Balanced Scorecard

The Balanced Scorecard is a four-dimensional model encompassing financial performance, customer relationships, internal operations, and learning and growth processes. It divides each perspective into five main components: the actual strategic objective, indicators, target values, procedural steps and initiatives, and actual values. By linking financial and non-financial measures, the Balanced Scorecard helps identify progress toward achieving organizational goals. It necessitates the availability of information and information technology tools to ensure the proper functioning of software systems for the timely vertical and horizontal flow of information. Additionally, it requires an administrative unit to monitor movements within the organizational structure (Reda, Ali, and Jassim, 2019, pp. 504-505).

2.10 Main Functions of the Balanced Scorecard

1. Clarifying the Organization's Vision and Strategy.

The organization's strategic principles must be interpreted into objectives, and the specific actions and operational conditions that the organization must serve should be determined.

2. Connecting the Strategic Objectives and the Applicable Measurements.

The organization must inform all employees of the main objectives that must be implemented for the strategic measures to succeed.

3. Planning, Setting Goals, and Arranging Strategic Initiatives

This is the most important and serious mission as the organization will start implementing the goals and plans that it intends to achieve (Reda, Ali, and Jassim, 2019, 505).

2.11 Process of Implementation of the Balanced Scorecard

The Balanced Scorecard enables most entities in the organization to understand and work towards a shared vision. A completed scorecard system aligns the organization's depiction of the future (vision) with business strategy, desired employee behavior, and internal operations. After all, the measures are used to enable decision-making and achieve progress toward the desired results (Saleh, 2014).

1st step: Assessment of the Vision and Challenges of the Organization.

2nd step: Development of a Management Plan for the Organization including measures for each of the perspectives.

3rd step: Development of Strategic Objectives by presenting them to the employees to express their opinions on them and to determine the necessary data for that.

4th step: Indicators are developed to measure the objectives.

5th step: Translate the objectives into operational activities.

6th step: Implementation process (applying performance measurement software).

7th step: Business units are identified.

8th step: Establish a system of incentives for managers and employees based on the extent to which they achieve the objectives.

9th step: Evaluation of the Balanced Scorecard.

2.12 Obstacles in the Application of the Balanced Scorecard

The performance measurement process faces several difficulties and errors, which can impact the organization and those responsible for measuring performance. One significant challenge is the availability of large amounts of data and information, which can lead to negligence by management and measurement personnel. This negligence can arise from the abundance and complexity of the data or its misuse, making it difficult to identify the most important information. Additionally, many organizations rely heavily on short-term data focused solely on financial and operational measures, neglecting long-term metrics such as customer and employee satisfaction due to the short-sightedness of the management.

Another issue is the tendency to base decisions on past experiences rather than on reliable and structured data. This reliance on anecdotal evidence can hinder effective performance measurement and decision-making. Furthermore, comparing the performance of one organization with another or the performance of individual workers can lead to unhealthy competition that undermines overall organizational performance. To mitigate this, teamwork should be encouraged (Balaksa, 2012, 5).. Inconsistencies between established metrics and the strategic plan can also create contradictions and chaos within the organization, while a lack of consensus among managers can result in a loss of commitment to achieving organizational goals and objectives (Wanjiru, 2012, 16-17).

Moreover, the performance measurement process can be hampered by a lack of awareness of the economic environment and changing legal frameworks, which are crucial for strategy and vision construction. The absence of qualified and skilled employees in the creation and implementation of the Balanced Scorecard strategy further complicates the process. Additionally, the lack of appropriate software products and platforms to simplify the Balanced Scorecard strategy adds another layer of difficulty to effective performance measurement (Georgiev, 2019, 49).

Section III Literature Review

The goal of this section is to present relevant theories and previous literature on this research study. It is very important to reflect on the previous literature to identify, assess, and review the impact of information technology on organizational performance at various companies, universities, Governmental entities, and banks using the balanced scorecard. Therefore, this literature review aims to display a critical assessment of the underlying core themes of this research study: Information Technology, Organizational Performance, and the balanced scorecard. It also intends to offer a look at the theoretical justifications and conflicting arguments around these themes coming from the perspectives of different authors.

Arabic Studies

- A study by Jbeirat (2021) titled “*The Impact of Human Resources Information Systems on the Individual Performance of Workers in Algerian Economic Enterprises*” proclaimed the significant effect of the use of human resources information systems on individual performance. This has been concluded by distributing a questionnaire with 80 items to a sample of 140 users of human resources information systems in seven economic enterprises in the region of Biskra. The results have shown a statistically significant effect of human resources information systems on individual performance in the company. In addition, the study recommends that decision-makers in companies should develop HR information systems as it is an important factor in achieving organizational performance.

- A study by Bomdin (2020) titled “*The Impact of Information and Communication Technology on the Job performance of employees at Larbi Ben M'hidi University - Oum El Bouaghi*” aimed to address the impact of communication and information technology on the job performance of workers at the University of Al-Arabi, ben mehidi oum el boughi. An online

questionnaire has been distributed among employees. It can be concluded that information and communication technology contributed to the timely completion of the institution's work facilitating the performance of workers while providing flexibility in the performance of work and reducing the effort consumed by employees in addition to providing accuracy in business that helps management to plan its future policy. Therefore, information and communication technology appeared to have a significant impact on employees' performance.

- In a study titled “*Impact of Information Technology on Organizational Performance in Jordanian Public Government Entities*” by Manaseer, Maqableh, Alrowwad, and Masa’deh (2019), the impact of information technology and communication devices is discovered on the Jordanian public entity’s performance. The study distributed a questionnaire among 262 employees working in Jordanian public entities. The results discovered that there is a significant positive impact of information technology on organizational performance at level 0.05.

- A study titled “*Electronic banking tools and their impact on the effort of banking services in Libya: A case study of commercial facilities operating in Sebha City*” by Aboujdiryha and Aboukhatwa (2019) aimed at looking at the electronic banking performance in Libya and its impact on the quality of banking services. The study assessed five commercial banks in Sebha city and distributed a questionnaire among the customers who have financial accounts in these banks. It also conducted some interviews with the employees and customers to conclude its argument. It is important to note that this study hypothesizes that there is no significant relationship between e-banking services and its four dimensions: information base, research, and development, security, and marketing strategy. However, the results have shown the opposite conclusion that there is a significant relationship between e-banking and its four dimensions.

- A study by Qanbar and Abbas titled “Obstacles To The Application Of Electronic Management In Iraqi Universities” (2019) investigated the technical, organizational, and human obstacles to implementing electronic management from the perspective of administrative and academic leaders in Tikrit University. Using a descriptive method and a questionnaire distributed to 108 participants, the study found that radar obstacles were the most significant (mean of 3.38), followed by human obstacles (mean of 3.24) and technical obstacles (mean of 3.14). Additionally, the study revealed significant differences in perceptions of these obstacles based on participants' academic qualifications, with master's and doctorate holders viewing the challenges differently than others.

- A study by Hussain, Lakhdar, and Budushin (2018) titled “*The role of Information and Communication Technology in improving the quality of public service-Smart government in the United Arab Emirates as a model*” describes the experience of the smart government in the United Arab Emirates and the extent to which the provision of public services has been improved after using the tools and applications at the level of the UAE government website. This research has shown how the UAE adopted the necessary measures needed to encourage the use of smart government and provide quality smart public services as it will spread electronic culture among citizens and government agencies. This smart government has sought to plan and implement the possibility of converting any routinized manual and paper service into an electronic public service of the best quality. This has been achieved as the UAE directed this transition through the strategic use of the latest information and communication technologies especially smart technologies to achieve maximum user satisfaction.

- A study titled “*The Electronic Administration and Its Impact on the public utility in Palestine*” by Abu Salama (2017) observed the effects of electronic administration and

management on the concept and subjectivity of the public entity and the principles that govern the work of the public entity. This research investigated the role of the Palestinian Government Computer Center as it has been entrusted with developing communication and information networks in the Gaza Strip and the West Bank. To achieve this purpose, the Government Computer Center has launched a website that contains electronic services that contribute positively to improving the governmental performance and administrative apparatus in Palestine. One of these services is the “National Data Center” which aims to preserve government information and data as well as develop information systems to keep up with the technological advancements to build an integrated system. Another service is government email as it provides email services for official uses of all institutions where they can send and receive emails (48). The Palestinian government has launched an electronic portal for government services that aims to serve citizens, government institutions, and commercial and private sectors, in addition to, smart device applications (49).

This study also explores the electronic management system at Al-Azhar University in Gaza as the university launched an electronic portal for employees and students that facilitates communication with the university. The students benefit from the services like knowing the subjects offered for the semester, study schedules, midterm, and final exam grades, financial records, access to request a certificate of enrollment, or official transcripts. This shows how the university has taken advantage of modern technology to deliver circulars, educational, and electronic announcements, and services to both employees and students (Abu Salama, 52). It becomes clear from this the extent to which the Palestinian governments and institutions seek to develop public institutions, whether educational, cultural, or administrative, by exploiting electronic technologies to perform the desired tasks.

- A study by Lazhar and Abd-Alrahaman (2016) titled “*E-governance as a mechanism to improve the performance of local groups in Algeria*” assesses the role of online administration (E-governance) as a way to improve the local groups' performance in Algeria. The programs included a Civil Status Authority digitization project that helps the Algerian citizen to enter his/her personal information regarding civil status on an online platform that they could go back to whenever desired (13). Another online service has been the Draft passport and biometric identification card as well as the Smart Municipality application that makes it easier for the citizen to save their personal information and communicate their needs. The results concluded that E-governance is one of the best ways to facilitate the needs of all citizens.

- A study by Ahmad (2016) titled “*The impact of information technology use on the performance of Tishreen University students using discriminant analysis*” aimed to identify the impacts of information technology on the students' performance at Tishreen University. The methodology consisted of a mathematical model for categorizing students' performance using discriminant analysis. The results show that there is a significant impact because of the availability of the following factors: computers laboratories, the internet, tutors, sources, and scientific references. However, there is no impact from foreign language proficiency and projectors on students' performance.

- A study titled “*The obstacles to the application of electronic management in higher education institutions*” by Al-Tamemy, Hatem, Khalaf, and Hashem (2016) intended to expose employees to the importance of applying electronic management in the institutions and the barriers that hinder them from developing such applications. This case study is mainly based in Diyala Governorate, Baghdad. The methodology has been based on collecting quantitative data from Diyala university and Baquba Technical Institute through questionnaire surveys. The results have

shown that the obstacles are the lack of financial resources to run the project of electronic management, lack of confidence in securing information, and weakness of cultural awareness of Information technology at the social and organizational level.

- A study by Abu Ghaben (2016) titled “*The possibility for using the Balanced Scorecard (BSC) To evaluate the performance of the Al-Aqsa University*” intended to identify the extent to which the Balanced Scorecard can be used as a tool for evaluating the performance of Al-Aqsa University in Gaza from the point of view of the university’s employees. A questionnaire was distributed mainly for the customer's perspective and in this context, to take the point of view of students; in order to assess students' satisfaction with the services provided. Descriptive and analytical data has been used to analyze the respondents' variables and test the hypotheses. The results have shown that the university has been exploiting its resources and financial capabilities in a way that led to the achievement of its goals which positively improved its academic performance. However, the services provided to students in the form of food and hygiene are of a low level, which indicates a lack of Student satisfaction with these services provided by the university. Indeed, the results show that the university has been focusing only on its financial operations and profits, and rejected the application of the other Balanced Scorecard perspectives in its application.

- A study by Hijazi (2016) titled “*The role of the balanced scorecard in achieving the principles of sustainable development at the Islamic University of Gaza*” intended to assess the sustainable development at the Islamic University of Gaza while using the Balanced Scorecard measurements. In this study, a questionnaire was developed and the population consisted of (67) deans, their deputies, and the directors of academic and administrative units at the university. The results were considered as statistically significant differences in the average estimates of the study

sample, to the degree of availability of the dimensions of the balanced scorecard due to the variable of occupational rank and academic rank. Most of the results showed a positive significant relationship between the Balanced Scorecard measurements and the personal variables. For instance, The Internal business process got the highest mean compared to all four perspectives which indicated that the university is best at developing its academic and administrator programs. The financial perspective has been ranked on the second-highest mean. “The university is committed to the principle of efficient purchasing operations” registered the highest paragraph mean in this perspective. Learning and growth perspectives have been ranked as the third-highest mean. The paragraph “The university offers programs to develop scientific and professional competence of faculty members” had the highest mean. However, the customer perspective has been ranked as the fourth claiming that the university does not follow up with developing the skills of its graduates.

- A study by Khaled and Abd Al Ghani (2015) titled “*Evaluation of the Impact of the Human Resources Information System on the functions of human resources management in the regional directorate of production of the Sonat Arc-Hassi Messaoud Foundation*” aimed to look at the contribution of human resource information systems to employment, planning, performance evaluation, and career path. This has been conducted through the distribution of a questionnaire to 40 employees in the field. The results emphasize that human resource information systems have a significant impact on the efficiency and effectiveness of human resource management systems.

- A study by Auso (2015) titled “*The Application of the Electronic Management in the Duhok Polytechnic University A survey Study*” explored the effects of online systems on Duhok Polytechnic University. This research has been achieved through an analytical descriptive method and a questionnaire distributed to 86 managers. The positive outcomes were that electronic

management gives all responsible persons and administrators the chance to store and retrieve all information and documents. Another positive outcome is that it has increased the association of sub-departments with the university presidency. And lastly, it saves a lot of time for workers in scientific departments and administrative units. However, some obstacles existed which hindered the process of application of electronic Management in the University. One of them is the need for computer specialists that could contribute to the success of electronic management applications. Also, it appeared that there is a need to re-engineer the administrative processes to suit the electronic management applications (198).

- A study by Abu Sharkh (2012) titled “*The extent to which it is possible to evaluate the performance of the Islamic University of Gaza using the Balanced Scorecard*” aimed to identify to which the Balanced Scorecard can be applied to evaluate the performance of the Islamic University in Gaza from the perspective of university employees. The study relied on primary and secondary data, including a questionnaire to survey the opinion of the sample members with (52) respondents. The results showed that the administration follows clear strategic performance measures, and the Islamic University is working to preserve scientific development through the development of its academic programs and its enthusiasm to develop new scientific programs, which enables it to apply the balanced scorecard. Also, the university appeared to be working to develop the quality of its administrative services and provide the necessary facilities for students.

English Studies

- Enakirehi, Efarekeya, and Alabo (2020) in a study titled “*The Balanced Score Card (BSC) approach to measuring performance in Service Firms in Nigeria: A Theoretical Perspective*” shed light on the inadequacy of traditional financial measures alone in measuring the performance of the firm. It further advocates the companies to rely more on a balanced scorecard approach with a

substantial focus on the customer's perspective, internal business perspective, and learning/growth perspective.

- A study by Ahmad and Al-Shbiel (2019) titled "*The Effect of Accounting Information System on Organizational Performance in Jordanian Industrial SMEs: The Mediating Role of Knowledge Management*". This study uses regression analysis of SPSS 20 to examine the causal relationship among the variables of accounting information systems and organizational performance. The findings from a survey of 350 employees working in small and medium enterprises in industrial companies in Jordan approved the hypothesis that knowledge management has a facilitating effect on the relationship between accounting information systems and organizational performance. This suggests that knowledge management exerts higher performance effectiveness on those firms that use accounting information systems in their business processes.

- A study by Hosain (2019) titled "*The Impact of Accounting Information System on Organizational Performance: Evidence from Bangladeshi Small & Medium Enterprises*" examines the important roles of accounting information systems in achieving high organizational performance in small and medium enterprises in Bangladesh. Pearson's correlation coefficient technique has been used to reveal the relationship between the independent and dependent variables. The linear regression analysis has been also used to test the validity of the hypothesis. A detailed questionnaire has been distributed to each participant from the organization. The results confirmed the validity of the hypothesis that accounting knowledge and record-keeping performance have a strong positive impact on organizational performance. The study settled the importance of AIS implementation as it provides a clear picture of the operational performance of the firm.

- A study by Azeez and Yakkub (2019) titled “*The Effect of Management Information System on Organizational Performance: A Survey Study at Missan Oil Company in Iraq*” measures the relationship between management information systems and the organizational performance of an oil company in Iraq. The methodology is mainly based on a questionnaire survey distributed to high, middle, and low managers in the company. The results confirmed that information quality, user satisfaction, and net benefits are directly associated with organizational performance. This implies that there is a positive relationship between Management information system indicators and organizational performance.

- Another study by Rosli, Ariff, and Said (2019) titled “*Factors that influenced Balanced Scorecard Adoption in Malaysian Private Institutions of Higher Learning*” asserted that the balanced scorecard is an ideal way to assess the performance of institutions. Interviews and questionnaires were conducted among administrators and academics to gather their opinions on the BSC indicators' effectiveness. The results have shown that most of the administrators and academicians in the university approve that BSC measurement is a very ideal method for assessing the performance of academicians.

- Another study by Ahmed, Naser, Talla, Shobaki (2018) titled “*The Impact of Information Technology Used on the Nature of Administrators Work at Al-Azhar University in Gaza*” examines the role of information technology and its impacts on administrators work at Al-Azhar University. A questionnaire has been distributed among 77 employees at Al-Azhar University in Gaza. The study concluded that there is a high amount of information technology used at the university exerting a significant effect of information technology on administrators work at the university.

- A Study by Alyakina, Mustafina, and Kaigorodova (2018) titled “*Directions of improving information system of insurance company*”proclaims that the use of information technology in

insurance companies reduces cost, attracts customers, and increases the overall service of the company. It showed the most important tools of information technologies application in the insurance business, which include predictive analytics, data platforms, cloud computing, security solutions, social network service, mobile and other technologies.

-A study by Al-Zoubi and Al-Nazer (2016) titled “*Exploring the Impact of the use of Business Information systems BIS on the organizational performance effectiveness in banks in Jordan*” intended to identify the influence of business information systems such as information and telecommunication technology, information systems, and skilled users on the organizational performance mainly the financial and operational performance in banks in Jordan. This study has been conducted by distributing 42 questionnaires to all senior administrators in all 23 banks in Jordan. The first part of the questionnaire consisted of items to measure the use of information systems, whereas the second part was composed of items that measure the organizational performance effectiveness of some variables. This questionnaire was evaluated using regression and correlation analysis to determine the impact of business information systems as an independent variable on the organizational performance effectiveness in banks in Jordan, which is a dependent variable. It is important to note that the null hypothesis of this study was that there is no significant impact of business information systems on the organizational performance effectiveness in banks in Jordan. Surprisingly, the results of this statistical analysis did not correspond to the null hypothesis. Instead, it accepted the alternative hypothesis asserting that there is an impact of business information systems on the organizational performance of banks in Jordan. This study examined that banks are developing through the use of applications, networks, and information technology in their branches to conduct and run their business operations.

- A study by Sugiharto, Sulistiowati, and Nofiyanti (2016) titled “*Business and information system strategic alignment: determinants and impact on rural bank organizational performance*” has analyzed the impact of business and information systems strategic alignment on the organizational performance of rural banks in Indonesia. Data was gathered from 78 managers in rural banks using a random selection approach and the tested questionnaires. The variables were measured through a five-point Likert scale. The 5th hypothesis was that business and information systems strategic alignment has a positive impact on rural banks' organizational performance. Thus, path analysis has been used to test this hypothesis and proved that strategic alignment between business and information systems provides a significant contribution to rural banks' organizational performance.

- Saad and Daraghma (2016) in a study titled “*Using of the Balanced Scorecard for Performance Evaluation: Empirical Evidence from the Listed Corporations in the Palestine Exchange (PEX)*” explored that the listed corporations in the Palestine exchange do not rely on the balanced scorecard indicators for measuring the performance in a correct and ideal way. They distributed a questionnaire to investigate the opinions of financial managers in various banking, insurance, service, industry, and investment sectors. The results revealed that the financial managers rely only on the financial and customers perspectives for evaluating the performance of the firm, and ignore the learning/growth and internal business process indicators.

- A study by Tagbotor, agbanu, adjei, and Sarkodie (2014) titled “*The Strategic Use of Information Technology in the Insurance Industry: A Case Study of State Insurance Company- Kumasi, Ghana*” observed the strategic application and management of information technology in State Insurance company through surveys and interviews within a sample of 60 respondents, 30 Junior staff and 30 Senior staff. They concluded that the use of computer design systems, internet,

and word were the most extensively used in State Insurance Company. Also, they found that the employees need more training sessions on how to apply information technology on their daily basis.

- A study by Aduloju, Olowokudejo, and Obalola (2014) titled “*Information Technology and Customer Service Performance among Insurance Companies in Nigeria*” aimed to see whether information technology resources can consider the differences between customer service performance in insurance companies in Nigeria. This was tested through a field survey of 402 insurance companies. Three hypotheses were tested using a regression equation. The results showed that all three components of IT, IT infrastructure Information, IT spending and IT skills have a negative relationship with customer service performance.

- A study by Farhanghi, Abbaspour, and Ghassemi (2013) titled “*The Effect of Information Technology on Organizational Structure and Firm Performance: An Analysis of Consultant Engineers Firms (CEF) in Iran*” explores the impacts of information technology on the organization’s structure and performance in a firm in Iran. Questionnaires were distributed to 250 respondents (owners, general/executive managers, and experts) in the Consultants Engineers Firm in Tehran. The results of this study are also consistent with the previous studies that information technology is a driver of firm organizational performance.

- Shaukat and Zafurallah (2009) in their study titled “*Impact of Information Technology on Organizational Performance: An Analysis of Qualitative Performance Indicators of Pakistan’s Banking and Manufacturing Companies*” observe the effects of information technology on the organizational performance of Pakistani manufacturing and banking sectors for the period of 1994-2005. This study has been conducted through the use of primary sources such as interviews and surveys of 48 companies, 24 in the manufacturing sector and 24 in the banking sector. The first

research hypothesis has been the increase in the performance of both sectors after the implementation of information technology. Therefore, the results of this study show that information technology has a positive impact on the organizational performance of all sectors. However, it appears that the performance in the banking sector exceeds the performance of the manufacturing sector. Also, it shows that there is a significant increase in customer satisfaction in the banking sector compared to the manufacturing sector. It is further argued that this is because local companies are responsible for the banking sector, whereas multinational companies are leading the manufacturing sectors. The improvements are said to be mainly linked to customer satisfaction, customer and supplier links, the company's image, job interest of employees, stakeholders' confidence, and interoffice communications.

Results and conclusions of previous studies

Most of the previous literature concludes that information technology has a significant impact on the organizational performance of banks, insurance companies, universities, and other institutions. This extensive body of research underscores the transformative power of information technology in enhancing operational efficiency, streamlining processes, and facilitating decision-making across various sectors.

In addition, through improving service delivery, communication channels, and customer engagement, information technology plays a crucial role in meeting and exceeding customer expectations. The ability to provide timely and efficient services through technological means has become a key differentiator for organizations striving to maintain a competitive edge.

The significance of information technology to a firm's survival and growth cannot be overstated. It is a vital component in supporting, sustaining, and expanding a business. Information

technology enables organizations to innovate, improve productivity, and adapt to changing market conditions, ensuring their long-term viability and success.

Also, some studies have highlighted the substantial utility of the balanced scorecard in measuring organizational performance. These studies have examined the importance of the balanced scorecard and its perspectives in evaluating the performance of universities. The balanced scorecard helps identify strengths and weaknesses in organizational performance, enabling institutions to bolster their strengths and address any weaknesses effectively. In addition, the five dimensions of the balanced scorecard have proven to be essential metrics needed to follow for a good performance of the company.

The transition to smart governments has become a goal that developed countries aspire to, driven by the tremendous advancements in information and communication technology. Many governments and institutions have sought to shift from traditional methods of providing services to the public to modern approaches that facilitate operations through online services (e-services). This transition aligns with technological developments and aims to maximize user satisfaction. Thus, information technology, especially electronic devices and applications, plays a crucial role in this transformation by enhancing the efficiency and accessibility of public services.

Benefits from the previous studies

The researcher benefited from previous studies in several significant ways. These studies informed the choice of methodology and statistical methods, providing a clear understanding of data analysis techniques. Additionally, the researcher drew on these studies to design the study tool, specifically the questionnaire. The results and recommendations from these studies also

proved invaluable, helping to shape the research direction and extend the information base on the topic. Through this comprehensive review of prior research, the researcher was able to build upon established knowledge and enhance the study's overall quality and relevance.

What distinguishes this study from the previous studies?

This study aligns with previous research on the impact of information technology on organizational performance in insurance companies in Palestine using the balanced scorecard. However, it distinguishes itself in several key ways. Firstly, it is one of the most recent and up-to-date studies in Palestine focused on assessing the impact of information technology on the organizational performance of insurance companies using the balanced scorecard. Secondly, it takes into account the unique Palestinian context, where the occupation significantly hinders access to evolving tools and instruments necessary for development. Lastly, the study sample is comprehensive, including individuals holding administrative positions within the companies, such as managers, employees, and administrators, thereby providing a more holistic view of the organizational impact.

Chapter III: Methodology

Introduction

This chapter navigates the procedures, the methods, and the approaches applied by this study, including design, population, sample size, tool, and sample description.

3.1 Design of the Study

In this research, the methodology will primarily be based on a correlational design. This design is chosen to answer the research question, which will be expressed in quantitative terms. It allows us to examine the conclusions and recommendations of the study by measuring the results from various tests. This methodology involves studying the reality or phenomenon and goes beyond merely collecting data and describing the phenomenon. It also involves organizing and analyzing data to draw significant conclusions regarding the problem addressed by the research.

3.2 Population of the Study

A Questionnaire has been distributed among Insurance Companies' employees and administrators to determine the main results of the study. The study population consists of employees of the branches of the insurance companies in Palestine (West Bank-Headquarters), including Global United Insurance Company, Trust International Insurance Group, National Insurance Company, Al-Mashreq Insurance Company, Ahlia Insurance Group, Al-Takaful Insurance, Tamkeen Insurance, Palestine Insurance, and Alico. Due to the current circumstances in Gaza, we were unable to distribute the questionnaire in Gaza. Consequently, the research was confined to West Bank employees, totaling 3000 individuals approximately.

3.3 Sample of the study

A non-random sample. The sample for this study consists of employees from insurance companies in Palestine. This includes a diverse range of roles within the organizations, encompassing managers, assistant managers, and general staff. The inclusion criteria were broad to ensure a comprehensive understanding of the impact of information technology (IT) on organizational performance across various levels of the organizational hierarchy.

3.4 Tools of the Study

A questionnaire was prepared on “The Impact of Information Technology on the Organizational Performance at Insurance Companies in Palestine using the Balanced Scorecard”. The study questionnaire as illustrated in {Appendix (3.1)} consists of three main sections:

- ❖ **The First Section:** consists of the personal characteristics of the respondent (Sex, Age, educational qualification, job, Years of experience, and name of the company).
- ❖ **The Second Section:** consists of a set of items that measure aspects of information technology application in insurance companies:
 - **Hardware and software:** Administrative and electronic devices and programs available in the company that help in completing basic daily work and contribute to achieving communication and communication with other companies.
 - **Database accuracy:** The extent to which information technology contributes to maintaining the accuracy, processing, and speed of access to data.
 - **Skills and experience:** The extent to which information technology contributes to developing and improving the skills of employees in the organization.

- **Communication Network:** The impact of information technology on the company's communications network and the extent of its contribution to serving employees and administrators and its effectiveness in achieving efficiency.
- ❖ **The Third Section:** consists of a set of items that measure the organizational performance through the balanced scorecard dimensions:
 - **Financial Dimension:** to ensure the future status and efficiency of the company's performance.
 - **Customer Dimension:** the extent to which information technology contributes to achieving standards that satisfy employees and customers.
 - **Internal operations Dimension:** The company's effort to utilize the correct resources in a complete manner and with high efficiency, in addition to improving and modernizing all resources and service methods.
 - **Education and Growth Dimension:** the contribution of information technology to developing the company's programs to enhance the capabilities and skills of its employees.
 - **Social Responsibility Dimension:** The extent to which information technology contributes to achieving social responsibility.

3.5 Validity of the Tool

This section investigates the validity of a study's tool in order to ensure that the collected data covers the area being studied. For purposes of this study, both the content and construct validities of the questionnaire are discussed.

3.5.1 Content Validity

To verify the content validity of the study tool (questionnaire), the researcher sent it via email to a group of specialists (PhD holders) in fields related to the topic of this study. The contributing experts acted as a judgmental panel (Arbitrators Committee) reviewing the tool, and all their recommendations and comments were taken into account and the questionnaire was adjusted accordingly. Appendix (3.2) details some information about the Arbitrator's committee members.

3.5.2 Construct Validity

The tool's construct validity was tested by calculating the correlation matrix in order to examine the correlation coefficients' values of each statement with the dimension it represents, and its correlation with the total score of the main variable of the study in which it's included.

❖ **First variable: Information Technology**

This section examines the construct validity of the study's tool related to its first variable, Information Technology. Table (3.1) illustrates that all statements representing the four dimensions of Information Technology are correlated to the total score of the relevant dimension. In addition, each statement within these dimensions and the total score of each dimension has a statistically significant correlation with the total score of the Information Technology variable.

As noticed from Table (3.1), the coefficients of all correlations have values that are greater than (0.30), which suggests that the statements representing the IT variable in the study's tool collectively cooperate to measure this variable at the Palestinian insurance companies; that is the used questionnaire has good construct validity in relation to this variable (Tavakol & Wetzel, 2020)..

| Table (3.1): Correlation Matrix for the first variable "Information Technology" | | | | | |
|--|--------------------------------|----------------------------|---|--------------------------------|----------------------------|
| Statement # | Cor. with its dimension | Cor. to total of IT | Statement # | Cor. with its dimension | Cor. to total of IT |
| 1 | 0.514** | 0.364** | 1 | 0.753** | 0.560** |
| 2 | 0.600** | 0.453** | 2 | 0.795** | 0.604** |
| 3 | 0.565** | 0.367** | 3 | 0.608** | 0.530** |
| 4 | 0.575** | 0.544** | 4 | 0.459** | 0.454** |
| 5 | 0.631** | 0.490** | 5 | 0.588** | 0.566** |
| 6 | 0.554** | 0.420** | 6 | 0.476** | 0.580** |
| 7 | 0.590** | 0.425** | 7 | 0.386** | 0.543** |
| 8 | 0.473** | 0.394** | 8 | 0.576** | 0.489** |
| 9 | 0.361** | 0.451** | 9 | 0.438** | 0.361** |
| | | | 10 | 0.462** | 0.436** |
| | | | 11 | 0.573** | 0.466** |
| | | | 12 | 0.684** | 0.504** |
| Total of the 1st dimension: Hardware and software | | 0.799** | Total of the 3rd dimension: Skills and experience | | 0.885** |
| | | | | | |
| 1 | 0.630** | 0.468** | 1 | 0.860** | 0.512** |
| 2 | 0.640** | 0.454** | 2 | 0.786** | 0.456** |
| 3 | 0.798** | 0.593** | 3 | 0.826** | 0.514** |
| 4 | 0.742** | 0.583** | 4 | 0.760** | 0.448** |
| 5 | 0.830** | 0.653** | 5 | 0.715** | 0.582** |
| 6 | 0.689** | 0.673** | | | |
| Total of the 2nd dimension: Database accuracy | | 0.802** | Total of the 4th dimension: Communication Network | | 0.635** |

❖ **Second variable: Balanced Scorecard**

This section evaluates the construct validity of the study's tool in relation to its second variable which is the Balanced Scorecard. As shown in Table (3.2), all statements representing the five dimensions of the Balanced Scorecard are in correlation with the total score of their relevant dimension. It's also clear that each statement within each of these dimensions, as well as the total score of each dimension, is in a statistically significant correlation with the total score of the Balanced Scorecard variable.

| Table (3.2): Correlation Matrix for the second variable "Balanced Scorecard" | | | | | |
|---|--------------------------------|-----------------------------|---|--------------------------------|-----------------------------|
| Statement # | Cor. with its dimension | Cor. to total of BSC | Statement # | Cor. with its dimension | Cor. to total of BSC |
| 1 | 0.556** | 0.343** | 1 | 0.563** | 0.415** |
| 2 | 0.576** | 0.530** | 2 | 0.793** | 0.618** |
| 3 | 0.623** | 0.490** | 3 | 0.755** | 0.610** |
| 4 | 0.783** | 0.743** | 4 | 0.716** | 0.617** |
| 5 | 0.551** | 0.449** | 5 | 0.762** | 0.799** |
| 6 | 0.611** | 0.626** | 6 | 0.740** | 0.683** |
| 7 | 0.598** | 0.636** | 7 | 0.668** | 0.713** |
| 8 | 0.440** | 0.312** | 8 | 0.734** | 0.646** |
| | | | 9 | 0.642** | 0.607** |
| Total of the 1st dimension: Financial D. | | 0.862** | Total of the 2nd dimension: Customer D. | | 0.903** |
| 1 | 0.619** | 0.628** | 1 | 0.836** | 0.776** |
| 2 | 0.643** | 0.573** | 2 | 0.868** | 0.816** |
| 3 | 0.750** | 0.622** | 3 | 0.701** | 0.707** |
| 4 | 0.702** | 0.612** | 4 | 0.813** | 0.700** |
| 5 | 0.776** | 0.720** | 5 | 0.862** | 0.760** |
| 6 | 0.718** | 0.639** | 6 | 0.832** | 0.749** |
| 7 | 0.758** | 0.640** | | | |
| Total of the 3rd dimension: Internal operations D. | | 0.893** | Total of the 4th dimension: Education and Growth D. | | 0.915** |
| 1 | 0.812** | 0.692** | | | |
| 2 | 0.807** | 0.581** | | | |
| 3 | 0.783** | 0.679** | | | |
| 4 | 0.886** | 0.694** | | | |
| 5 | 0.771** | 0.632** | | | |
| Total of the 5th dimension: Social Responsibility D. | | 0.809** | | | |

Table (3.2) also shows that the coefficients of all of the mentioned correlations are of values greater than (0.30), suggesting that the statements representing the BSC variable in the tool of the study collectively cooperate to measure this variable at the Palestinian insurance companies; which means that the used questionnaire has good construct validity in relation to this variable.

3.6 Reliability of the Tool

The Cronbach's alpha test was carried out to examine the reliability of the study's tool in relation to each dimension. As clear from Table (3.3), the test value was higher than (70.0%) for all of these dimensions, this indicates that the tool used has an acceptable level of reliability (Taherdoost, 2016).

| Table (3.3): Cronbach's alpha results | |
|--|-----------------------------------|
| Dimension | Reliability percentage (%) |
| Hardware and Software | 71.8 |
| Database Accuracy | 81.1 |
| Skills and Experience | 81.3 |
| Communication Network | 84.6 |
| Total of IT variable | 89.7 |
| Financial Dimension | 72.0 |
| Customer Dimension | 87.4 |
| Internal Operations Dimension | 83.1 |
| Education and Growth Dimension | 90.1 |
| Social Responsibility Dimension | 87.0 |
| Total of Balanced Scorecard variable | 95.4 |

3.7 Sample Description

This section describes the sample of the study in terms of certain demographic factors, including; gender, educational degree, age, job title, years of experience, and the insurance company in which they work. Tables (3.4 – a & b) detail the participants' distribution among each of these factors with the following representing the most noteworthy observations:

- ✓ The sample in its majority consisted of Males (72.6%).

- ✓ Regarding the educational level, the majority of the participants were bachelor’s degree holders or less (80.6%).
- ✓ Most of the participants were of ages varying from 30 to less than 40 years old (48.4%).
- ✓ As for the job titles of the participants, the majority of them consisted of employees (59.7%).
- ✓ The majority of the participants had years of experience varying from 5 to less than 10 years (38.7%).
- ✓ The majority of the participants composing the samples were those working at Global United Insurance Company (29.0%), while those working at Trust International Insurance Group formed the second majority of the sample (22.6%).

| Table (3.4 – a): Sample Description | | | |
|--|---------------------------|------------------|--------------------|
| Demographic factor | Class | Frequency | Percent (%) |
| Gender | Male | <u>180</u> | <u>72.6</u> |
| | Female | 68 | 27.4 |
| | Missing | - | - |
| | Total | 248 | 100.0 |
| Educational Degree | Bachelor’s degree or less | <u>200</u> | <u>80.6</u> |
| | Master’s degree | 36 | 14.5 |
| | PHD | 12 | 4.8 |
| | Missing | - | - |
| | Total | 248 | 100.0 |

| Table (3.4 – b): Sample Description | | | |
|--|-----------------------------------|------------------|--------------------|
| Demographic factor | Class | Frequency | Percent (%) |
| Age | Less than 30 years old | 96 | 38.7 |
| | From 30 to less than 40 years old | <u>120</u> | <u>48.4</u> |
| | From 40 to less than 50 years old | 24 | 9.7 |
| | 50 years old or more | 8 | 3.2 |

| | | | |
|----------------------------|-------------------------------------|------------|--------------|
| | Missing | - | - |
| | Total | 248 | 100.0 |
| Job Title | Managing Director or higher | 44 | 17.7 |
| | Deputy Managing Director | 12 | 4.8 |
| | Head of the department | 44 | 17.7 |
| | Employee | <u>148</u> | <u>59.7</u> |
| | Missing | - | - |
| | Total | 248 | 100.0 |
| Years in Experience | Less than 5 years | 72 | 29.0 |
| | 5 years to less than 10 years | <u>96</u> | <u>38.7</u> |
| | 10 years to less than 15 years | 44 | 17.7 |
| | 15 years or more | 36 | 14.5 |
| | Missing | - | - |
| | Total | 248 | 100.0 |
| Insurance Company | Global United Insurance Company | <u>72</u> | <u>29.0</u> |
| | Trust International Insurance Group | <u>56</u> | <u>22.6</u> |
| | National Insurance Company | 12 | 4.8 |
| | Al-Mashreq Insurance Company | 8 | 3.2 |
| | Ahlia Insurance Group | 16 | 6.5 |
| | Al-Takaful Insurance | 40 | 16.1 |
| | Tamkeen Insurance | 20 | 8.1 |
| | Palestine Insurance | 24 | 9.7 |
| | Missing | - | - |
| | Total | 248 | 100.0 |

3.8 Applied Statistical Tests

Data obtained using the study's tool was analyzed using the Statistical Package for Social Sciences (SPSS; Version 25.0) with the following statistical tests being the applied ones:

- ❖ **Frequencies and Percentages** have been used to describe the sample of the study in terms of certain demographic factors.
- ❖ **Mean, Standard Deviation, and Coefficient of Variation** have been used to study the levels of agreement to the statements composing each dimension of the study's variables.

- ❖ **One sample T-test** has been applied as an endorsing indicator of each statement's response's inclination towards agreement or disagreement.
- ❖ **Coefficients of Pearson Correlation** have been calculated to examine the presence of any significant correlation between the dimensions of Information Technology and those of the Balanced Scorecard (the independent and dependent variables).
- ❖ **Multiple Linear Regression** has been used to analyze the impact that the Information Technology dimensions as independent variables have on each dimension of the Balanced Scorecard as a dependent variable.
- ❖ **Independent Samples T-test & One-Way ANOVA** have been carried out to explore the presence of variations in the responses to each dimension of the study upon any of the demographic factors.

Chapter IV: Data Analysis and Discussion

Introduction

This chapter endeavors to apply the statistical tests needed to answer the questions of the study on the collected data and discuss the results of these tests. This statistical analysis is arranged according to the applied tests, and so the chapter starts by calculating the descriptive statistics and the One-Sample T-test of the dimensions of the two main variables of the study, followed by examining Pearson's Correlations among these dimensions. The chapter then applies Multiple Linear Regression to study the impact of the independent variable on the dependent variable and ends by studying the presence of any variations in the responses depending on certain demographic factors through carrying out the Independent Samples T-test and the One-Way ANOVA.

4.1 Descriptive Statistics and One-Sample T-test

This section discusses the results of the calculated descriptive statistics which included the Means, the Standard Deviations, and the Coefficients of Variation for each statement. In addition, it examines the results of the One-Sample T-test which examines if the sample means of each dimension have a statistical difference from the test assumed value (3.0), as an endorsing indicator of each statement's response inclination towards agreement or disagreement.

Before diving into the discussion of these statistical results, it is necessary to clarify the method used to estimate the levels of agreement in each statement. Depending on the Five-Point Likert scale, each statement was given a certain value of points according to the different five points of the Likert scale; five points were assigned for each (strongly agree) response, four points for each (agree) response, three points for each (don't know) response, two points for each (disagree)

response, and one point for each (strongly disagree) response. The sum of the points assigned for each statement was then used to calculate its mean.

Accordingly, the percentage for each statement was calculated by dividing its mean by the greatest assigned value of the Likert five-point scale, which is (5.0), and then multiplying that result by (100%); this method is represented by this equation: $\{(Statement's\ Mean/5.0)*100\}$. Table (4.1) shows the rating scale adopted to evaluate agreement levels according to the calculated means and the estimated percentages.

| Table (4.1): Likert Five-Point Rating Scale | | |
|--|-----------------------------|---------------------------|
| Point Range (Statement Mean) | Percentage Range (%) | Level of Agreement |
| 1.00 – 1.80 | 20.0 to 36.0 | Very low |
| 1.80 – 2.60 | More than 36.0 to 52.0 | Low |
| 2.60 – 3.40 | More than 52.0 to 68.0 | Moderate |
| 3.40 – 4.20 | More than 68.0 to 84.0 | High |
| 4.20 – 5.00 | More than 84.0 to 100.0 | Very high |

4.1.1 Information Technology (IT)

Information Technology includes four dimensions which are; Hardware & Software, Database Accuracy, Skills & Experience, and Communication Network. This section discusses each of these dimensions in terms of certain descriptive statistics and the one-sample T-test.

❖ First Dimension: Hardware & Software

| Table (4.2): Descriptive Statistics and T-test for 1 st D.: "Hardware & Software" | | | | | | |
|--|--|------|-------|------|------|-------|
| # | Statement | Mean | SD | CV | T | Sig. |
| (1) | I use financial, administrative, and operational apps and programs to accomplish my daily tasks and job duties | 4.44 | 0.528 | 11.9 | 42.8 | 0.000 |
| (2) | Information technology has helped facilitate dealing with other companies and institutions to complete transactions as quickly as possible | 4.48 | 0.562 | 12.5 | 41.6 | 0.000 |
| (3) | Information technology helps increase the effectiveness of administrative supervision | 4.35 | 0.512 | 11.8 | 41.7 | 0.000 |
| (4) | Information technology helps increase the connectivity between subsidiary branches and the company's head management | 4.40 | 0.554 | 12.6 | 39.9 | 0.000 |
| (5) | Files, messages, official documents, forms, employee procedures, and service requests are exchanged electronically | 4.19 | 0.841 | 20.1 | 22.3 | 0.000 |
| (6) | Electronic signatures are used for all online transactions by the beneficiary through the internet | 3.35 | 1.035 | 30.9 | 5.4 | 0.000 |
| (7) | There is a shortage of expertise and skills in dealing with internet services | 3.35 | 0.971 | 29.0 | 5.8 | 0.000 |
| (8) | There is a weakness in the necessary infrastructure level needed for implementing electronic management | 3.52 | 0.895 | 25.4 | 9.1 | 0.000 |
| (9) | There is a sufficient number of computer devices in the company | 4.48 | 0.617 | 13.8 | 37.9 | 0.000 |

Regarding statements representing the Hardware and Software dimension as shown in **Table (4.2)**, the means of the participants' responses to all statements inclined towards agreement, these inclinations showed moderate to very high levels (percentages) of agreement varying between 67.0% and 89.6%. Both statements: "Information technology has helped facilitate dealing with other companies and institutions to complete transactions as quickly as possible" and "There is a sufficient number of computer devices in the company" had the highest level of agreement among the statements.

The one sample t-test results revealed that the sig. P-values are less than ($\alpha \leq 0.05$) for all statements which further confirmed the statements' responses' inclination towards agreement. The Coefficients of Variation (CV) showed acceptable variability levels ($CV \leq 30\%$) (Formplus, 2022) among the participants' responses in all statements except in the statement: "Electronic signatures are used for all online transactions by the beneficiary through the internet" which had a low level of variability.

❖ **Second Dimension: Database Accuracy**

Table (4.3) detailing descriptive statistics for statements representing the Database Accuracy dimension demonstrated that the means of the participants' responses to all statements inclined towards agreement, these inclinations showed high to very high levels of agreement varying between 79.6% and 87.0%. Both statements: "Data can be accessed in a timely manner and

quickly" and "There is a security system to protect information and data in electronic transactions" had the highest level of agreement among the dimension's statements.

Sig. P-values of less than ($\alpha \leq 0.05$) for all statements were noticed from the one sample t-Test results which added confirmation to the finding that the statements' responses inclined towards agreement. CV values showed acceptable levels of variability in all statements representing this dimension.

| Table (4.3): Descriptive Statistics and T-test for 2nd D.: "Database Accuracy" | | | | | | |
|--|--|-------------|-----------|-----------|----------|-------------|
| # | Statement | Mean | SD | CV | T | Sig. |
| (1) | Data can be accessed in a timely manner and quickly | 4.35 | 0.479 | 11.0 | 44.5 | 0.000 |
| (2) | Using information system leads to reducing errors and improving the accuracy of work | 4.16 | 0.654 | 15.7 | 28.0 | 0.000 |
| (3) | Continuous data updating is possible | 4.26 | 0.718 | 16.9 | 27.6 | 0.000 |
| (4) | Using information system offers solutions to files' storage problems | 4.05 | 0.707 | 17.5 | 23.4 | 0.000 |
| (5) | There is a security system to protect information and data in electronic transactions | 4.35 | 0.651 | 15.0 | 32.8 | 0.000 |
| (6) | The company has plans to address system and information-related emergencies or disasters | 3.98 | 0.815 | 20.5 | 19.0 | 0.000 |

❖ **Third Dimension: Skills & Experience**

Responses to statements representing the Skills & Experience dimension, illustrated in **Table (4.4)**, revealed that the means of all statements inclined towards agreement except for the statement: "Lack of convention in the feasibility of implementing electronic management", for which the sig. P-value of the one sample t-Test was greater than ($\alpha \leq 0.05$) with a mean indicating responses inclining towards "not knowing". As for all of the other statements the responses inclined towards agreement with moderate to very high levels varying between 67.4% and 84.8%. The statement: "Specialized technicians are relied upon to address issues and malfunctions faced during the implementation of electronic management" had the highest level of agreement among all statements.

| Table (4.4): Descriptive Statistics and T-test for 3rd D.: "Skills & Experience" | | | | | | |
|--|--|-------------|-----------|-----------|----------|-------------|
| # | Statement | Mean | SD | CV | T | Sig. |
| (1) | The company strives to continuously provide workshops and programs aiming to develop and enhance the skills and expertise of its employees | 3.47 | 1.148 | 33.1 | 6.4 | 0.000 |
| (2) | The IT department trains employees to proficiently use software applications | 3.42 | 1.027 | 30.0 | 6.4 | 0.000 |
| (3) | Information systems have helped increase the efficiency and productivity of employees and administrative work in general | 4.10 | 0.858 | 20.9 | 20.1 | 0.000 |
| (4) | Information technology has helped the company in quickly making decisions | 4.08 | 0.656 | 16.1 | 25.9 | 0.000 |
| (5) | Information technology has facilitated innovation in administrative work | 3.97 | 0.696 | 17.5 | 21.9 | 0.000 |

| | | | | | | |
|------|---|------|-------|------|------|-------|
| (6) | Experts in the field of electronic software design and development are consulted | 4.02 | 0.774 | 19.3 | 20.7 | 0.000 |
| (7) | Specialized technicians are relied upon to address issues and malfunctions faced during the implementation of electronic management | 4.24 | 0.666 | 15.7 | 29.4 | 0.000 |
| (8) | There is a lack of awareness about the importance of using computers in electronic transactions | 3.37 | 1.053 | 31.2 | 5.5 | 0.000 |
| (9) | There is a shortage of expertise and skills in dealing with internet services | 3.40 | 0.960 | 28.2 | 6.6 | 0.000 |
| (10) | Some administrative managers fear change to electronic systems | 3.55 | 0.947 | 26.7 | 9.1 | 0.000 |
| (11) | Lack of convention in the feasibility of implementing electronic management | 3.03 | 1.018 | 33.6 | 0.5 | 0.618 |
| (12) | The company grants privileges to those with creative and innovative ideas | 3.39 | 1.085 | 32.0 | 5.6 | 0.000 |

The Coefficients of Variation showed acceptable variability levels among the participants' responses in all statements except in the following five statements:

- The company strives to continuously provide workshops and programs aiming to develop and enhance the skills and expertise of its employees.
- The IT department trains employees to proficiently use software applications.
- There is a lack of awareness about the importance of using computers in electronic transactions.
- Lack of convention in the feasibility of implementing electronic management.
- The company grants privileges to those with creative and innovative ideas.

❖ **Fourth Dimension: Communication Network**

| Table (4.5): Descriptive Statistics and T-test for 4th D.: "Communication Network" | | | | | | |
|--|--|-------------|-----------|-----------|----------|-------------|
| # | Statement | Mean | SD | CV | T | Sig. |
| (1) | The company uses communication networks to connect all administrative and service departments within the company | 4.24 | 0.641 | 15.1 | 30.5 | 0.000 |
| (2) | The ease and convenience of exchanging information and data between departments in the company through the available communication channels | 4.15 | 0.645 | 15.5 | 28.0 | 0.000 |
| (3) | The company conducts regular maintenance for all communication networks | 4.11 | 0.722 | 17.6 | 24.3 | 0.000 |
| (4) | Internet service is available for all employees of the company | 4.24 | 0.757 | 17.9 | 25.8 | 0.000 |
| (5) | Security and protection measures are available for communication networks and information exchange | 4.21 | 0.652 | 15.5 | 29.2 | 0.000 |

From **Table (4.5)** showing descriptive statistics for statements representing the Communication Network dimension, it was found that the means of the participants' responses to all statements inclined towards agreement, these inclinations showed high to very high levels of agreement varying between 82.2% and 84.8%. Both statements: "The company uses communication networks to connect all administrative and service departments within the company" and "Internet service

is available for all employees of the company" had the highest level of agreement among these statements.

The one sample t-Test results revealed Sig. P-values of less than ($\alpha \leq 0.05$) for all statements which added confirmation to the finding that all responses inclined towards agreement. CV values showed acceptable levels of variability in all statements representing the dimension.

4.1.2 Balanced Scorecard (BSC)

In this study, the Balanced Scorecard variable is represented by the following five dimensions: Financial Dimension, Customer Dimension, Internal Operations Dimension, Education & Growth Dimension, and Social Responsibility Dimension. This section discusses each of these dimensions in terms of certain descriptive statistics and the one-sample T-test.

❖ First: Financial Dimension

Regarding statements representing the financial dimension as shown in **Table (4.6)**, the means revealed that responses to all statements inclined towards agreement except for the statement: "The company suffers from low funding that is affecting its goal achievement", for which the sig. P-value of the one sample t-Test was greater than ($\alpha \leq 0.05$) with a mean indicating responses

inclining towards "not knowing". In addition, the CV value for this statement also showed a considerable level of variability in the participants' responses to it.

| Table (4.6): Descriptive Statistics and T-test for the Financial Dimension | | | | | | |
|---|---|-------------|-----------|-------------|----------|--------------|
| # | Statement | Mean | SD | CV | T | Sig. |
| (1) | The company is keen on providing and funding all advanced programs | 3.77 | 0.751 | 19.9 | 16.2 | 0.000 |
| (2) | The company is committed to efficiently implementing the financial plan | 3.89 | 0.787 | 20.2 | 17.8 | 0.000 |
| (3) | The company strives to increase its market share of employees | 3.90 | 0.799 | 20.5 | 17.8 | 0.000 |
| (4) | The company invests all human resources properly | 3.52 | 0.913 | 25.9 | 8.9 | 0.000 |
| (5) | The company relies on cost-reduction strategies in providing its services | 3.87 | 0.685 | 17.7 | 20.0 | 0.000 |
| (6) | The company implements financial control mechanisms to make the correct decisions, or it relies on specific financial indicators to measure financial performance | 3.81 | 0.716 | 18.8 | 17.7 | 0.000 |
| (7) | The company offers its services at prices that are affordable for everyone | 4.00 | 0.569 | 14.2 | 27.7 | 0.000 |
| (8) | The company suffers from low funding that is affecting its goal achievement | 2.94 | 1.078 | 36.7 | -0.943 | 0.347 |

However, for all other statements representing the financial dimension the responses inclined towards agreement with high to very high levels varying between 70.4% and 80.0%. The

statement: "The Company offers its services at prices that are affordable for everyone" had the highest level of agreement among all statements. CV values showed acceptable levels of variability in these statements.

❖ **Second: Customer Dimension**

| Table (4.7): Descriptive Statistics and T-test for the Customer Dimension | | | | | | |
|--|---|-------------|-----------|-----------|----------|-------------|
| # | Statement | Mean | SD | CV | T | Sig. |
| (1) | The company strives to achieve satisfaction for beneficiaries in order to retain and attract them | 4.16 | 0.654 | 15.7 | 28.0 | 0.000 |
| (2) | The company cares about the work environment and the services provided to customers | 3.92 | 0.749 | 19.1 | 19.3 | 0.000 |
| (3) | The company provides a monitoring and evaluation system for its provided services | 3.84 | 0.809 | 21.1 | 16.3 | 0.000 |
| (4) | The company strives to provide the best services using modern technology | 4.03 | 0.696 | 17.2 | 23.3 | 0.000 |
| (5) | The company responds to complaints from its administrative team, employees, and customers by addressing the issues promptly | 3.76 | 0.857 | 22.8 | 13.9 | 0.000 |
| (6) | The company values continuous communication with customers | 4.02 | 0.774 | 19.3 | 20.7 | 0.000 |
| (7) | The company monitors the performance levels of its employees and administrative team and strives to enhance their experiences | 3.81 | 0.879 | 23.1 | 14.5 | 0.000 |

| | | | | | | |
|-----|--|------|-------|------|------|-------|
| (8) | The company uses non-financial metrics to assess the achieved performance level and customer satisfaction | 3.58 | 0.855 | 23.9 | 10.7 | 0.000 |
| (9) | The company provides non-routine activities | 3.16 | 0.938 | 29.7 | 2.7 | 0.007 |

Table (4.7) viewing descriptive statistics for statements representing the Customer dimension illustrated that the means of the responses to all statements inclined towards agreement, these inclinations showed moderate to high levels of agreement varying between 63.2% and 83.2%. The statement: "The Company strives to achieve satisfaction for beneficiaries in order to retain and attract them" had the highest level of agreement among these statements.

Sig. P-values of less than ($\alpha \leq 0.05$) for all statements were calculated from the one sample t-Test results which further confirmed the finding that all responses inclined towards agreement. CV values showed acceptable levels of variability in all statements representing the dimension.

❖ **Third: Internal Operations Dimension**

| Table (4.8): Descriptive Statistics and T-test for Internal Operations Dimension | | | | | | |
|---|---|-------------|-----------|-----------|----------|-------------|
| # | Statement | Mean | SD | CV | T | Sig. |
| (1) | The company continuously works on improving the style and quality of administrative services | 3.81 | 0.693 | 18.2 | 18.3 | 0.000 |

| | | | | | | |
|-----|--|------|-------|------|------|-------|
| (2) | The quality level of the company's provided services is proportional to the cost | 3.90 | 0.561 | 14.4 | 25.4 | 0.000 |
| (3) | The company is working on improving the process of investing resources and energies | 3.81 | 0.592 | 15.5 | 21.4 | 0.000 |
| (4) | The company provides services at suitable times | 3.89 | 0.572 | 14.7 | 24.4 | 0.000 |
| (5) | The company devotes efforts to achieving efficiency, streamlining procedures, and reducing costs | 3.94 | 0.593 | 15.1 | 24.8 | 0.000 |
| (6) | The company regularly updates and improves its devices and systems | 3.94 | 0.782 | 19.8 | 18.8 | 0.000 |
| (7) | The company strives to utilize the available resources properly and efficiently | 3.82 | 0.732 | 19.2 | 17.7 | 0.000 |

Responses to statements representing the Internal Operations dimension, illustrated in **Table (4.8)**, revealed that the responses' means of all statements inclined towards an agreement with moderate levels varying between 76.2% and 78.8%. Both statements: "The Company devotes efforts to achieving efficiency, streamlining procedures, and reducing costs" and "The Company regularly updates and improves its devices and systems" had the highest level of agreement. The sig. P-values of less than ($\alpha \leq 0.05$) calculated by the one sample t-Test for all statements added confirmation to these findings. CV values showed acceptable levels of variability in all statements.

❖ **Fourth: Education & Growth Dimension**

Table (4.9): Descriptive Statistics and T-test for Education & Growth Dimension

| # | Statement | Mean | SD | CV | T | Sig. |
|-----|---|------|-------|------|------|-------|
| (1) | The company aims to provide a suitable promotion system that supports professional development of its employees (system and incentives) | 3.32 | 1.076 | 32.4 | 4.7 | 0.000 |
| (2) | The company aims to develop the scientific and professional competence of managers, employees, and trainees | 3.55 | 0.876 | 24.7 | 9.9 | 0.000 |
| (3) | The company strives to innovate new methods of work in order to achieve excellence in providing service | 3.79 | 0.787 | 20.8 | 15.8 | 0.000 |
| (4) | The company cares about providing a comfortable organizational environment for employees to support and encourage their creativity and innovation | 3.55 | 0.947 | 26.7 | 9.1 | 0.000 |
| (5) | The company endeavors to provide training programs that enhances the capabilities of its employees | 3.52 | 0.998 | 28.4 | 8.1 | 0.000 |
| (6) | The company supports employees in attending scientific and cultural conferences | 3.56 | 0.946 | 26.6 | 9.4 | 0.000 |

Table (4.9) shows descriptive statistics for statements composing the Education & Growth dimension, it was revealed that the means of the responses to all statements inclined towards agreement, these inclinations showed moderate to high levels of agreement varying between 66.4% and 75.8%. The statement: "The Company strives to innovate new methods of work in order to achieve excellence in providing service" had the highest level of agreement.

Sig. P-values of less than ($\alpha \leq 0.05$) for all statements were calculated using the one-sample t-Test which supported the finding that all responses inclined towards agreement. CV values showed

acceptable levels of variability in all statements except the statement: "The company aims to provide a suitable promotion system that supports the professional development of its employees (system and incentives)" which showed a degree of variability in the participants' responses to it.

❖ **Fifth: Social Responsibility Dimension**

Responses to statements representing the Social Responsibility dimension, detailed in **Table (4.10)**, showed that the means of all statements inclined towards agreement with high levels of agreement varying between 68.8% and 77.8%. The statement: "The Company seeks to build an active social role in serving the community" had the highest level of agreement among these statements. The one sample t-Test results revealed that the sig. P-values are less than ($\alpha \leq 0.05$) for all statements which further confirmed the statements' responses' inclination towards agreement. In addition, CV values showed acceptable levels of variability in all statements.

| Table (4.10): Descriptive Statistics and T-test for Social Responsibility Dimension | | | | | | |
|--|---|-------------|-----------|-----------|----------|-------------|
| # | Statement | Mean | SD | CV | T | Sig. |
| (1) | The company allocates a portion of its budget to finance the community activities | 3.76 | 0.857 | 22.8 | 13.9 | 0.000 |
| (2) | The company seeks to build an active social role in serving the community | 3.89 | 0.744 | 19.1 | 18.8 | 0.000 |
| (3) | The company aims to provide job opportunities as a participation in solving the issue of unemployment | 3.63 | 0.810 | 22.3 | 12.2 | 0.000 |

| | | | | | | |
|-----|--|------|-------|------|------|-------|
| (4) | The company contributes in providing support for the special needs members of the community and for those in need financially | 3.44 | 0.929 | 27.0 | 7.4 | 0.000 |
| (5) | The company provides helping centers within its local community (providing social, legal, and health services) | 3.66 | 0.824 | 22.5 | 12.6 | 0.000 |

4.2 Pearson Correlation

This section explores the existence (indicated by sig. p-value) and the strength (represented by the correlation coefficient) of a relationship between the dimensions of the independent variable (that is IT) and the dimensions of the dependent variable (that is BSC) through carrying out Pearson correlation test.

Table (4.11) detailing the values of Pearson correlation coefficients between IT dimensions and BSC dimension revealed that all sig. (2-tailed) P-values are less than ($\alpha \leq 0.05$) which indicated the rejection of the null hypothesis: "There is no significant relationship at ($\alpha \leq 0.05$) between Information Technology dimensions (Hardware & Software, Database Accuracy, Skills & Experience, and Communication Network) and the organizational performance measured through the Balanced Scorecard dimensions (Financial, Customer, Internal Operations, Education & Growth, and Social Responsibility dimensions)", and the acceptance of the alternative hypothesis indicating the presence of statistically significant correlations between the dimensions of the study.

| Table (4.11): Pearson Correlation between independent and dependent variables | | | | | | | |
|---|---------------------------------|---------------------|---|-------------------|---------------------|-----------------------|----------------|
| Dimension | | | Information Technology (Independent Variable) | | | | |
| | | | Hardware & Software | Database Accuracy | Skills & Experience | Communication Network | Total of IT |
| Balanced Scorecard (Dependent Variable) | Financial Dimension | Pearson Correlation | 0.432** | 0.565** | 0.765** | 0.448** | 0.739** |
| | | Sig. (2 tailed) | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Customer Dimension | Pearson Correlation | 0.475** | 0.542** | 0.533** | 0.426** | 0.624** |
| | | Sig. (2 tailed) | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Internal Operations Dimension | Pearson Correlation | 0.434** | 0.558** | 0.567** | 0.472** | 0.643** |
| | | Sig. (2 tailed) | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Education & Growth Dimension | Pearson Correlation | 0.436** | 0.574** | 0.654** | 0.361** | 0.667** |
| | | Sig. (2 tailed) | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Social Responsibility Dimension | Pearson Correlation | 0.439** | 0.461** | 0.484** | 0.215** | 0.524** |
| | | Sig. (2 tailed) | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 |
| | Total Score of BSC | Pearson Correlation | 0.505** | 0.616** | 0.682** | 0.439** | 0.728** |
| | | Sig. (2 tailed) | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

As clear from Table (4.11), the correlation coefficients have values ranging from (+0.215) to (+0.765); representing weak to moderate positive correlations. One of the most important findings to point out is the moderate positive correlation between the total of the IT variable and the total score of the BSC (Total Organizational Performance) which has the value of (+0.728). It's also important to notice that the strongest correlation occurred between the Skills & Experience dimension and the financial dimension, while the weakest correlation was that between the Communication Network dimension and the Social Responsibility dimension.

4.3 Multiple Linear Regression (MLR)

Linear regression signifies a modeling technique via which data is analyzed with the aim of making predictions. This section examines different regression models in which the impact that each dimension of IT (as an independent variable) has on the different dimensions of BSC (as a dependent variable) at the Palestinian Insurance Companies. Then, the section studies the impact that IT dimensions have on the total score of the BSC (as one collective dependent variable).

4.3.1 MLR assuming each dimension of BSC as a dependent variable

This section endeavors to examine different models of MLR that study the impact each dimension of IT (each as an independent variable) has on a specific dimension of the BSC (as a dependent variable) at the Palestinian Insurance Companies.

❖ Financial dimension of BSC as a dependent variable

Looking at **Table (4.12)** showing the results of MLR applied to study the impact that the dimensions of IT (as independent variables) have on the financial dimension of the BSC (as a dependent variable), it is noticed that the sig. P-values are less than ($\alpha \leq 0.05$) for each dimension of IT. This observation indicates the rejection of the null hypothesis: "There is no statistically significant impact of information technology at the significance level ($\alpha \leq 0.05$) on the financial

dimension of organizational performance" and the acceptance of the alternative hypothesis indicating that each IT dimension has a statistically significant impact on the financial dimension.

| Table (4.12): The Impact of IT D.s on Financial D. of BSC | | | | | |
|---|------------------------------------|-------------------|----------------------------------|----------|--------------|
| Coefficients | | | | | |
| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | B | Std. Error | Beta | | |
| (Constant) | 0.859 | 0.204 | - | 4.212 | 0.000 |
| Hardware & Software | -0.0146 | 0.063 | -0.124 | -2.328 | 0.021 |
| Database Accuracy | 0.191 | 0.053 | 0.200 | 3.624 | 0.000 |
| Skills & Experience | 0.588 | 0.044 | 0.669 | 13.244 | 0.000 |
| Communication Network | 0.116 | 0.039 | 0.135 | 2.979 | 0.003 |
| R = 0.795, Adjusted R square = 0.625, F = 104.1, sig. for F = 0.000 | | | | | |
| a. Dependent Variable: Financial Dimension of BSC | | | | | |
| b. Predictors: (Constant), Hardware & Software, Database Accuracy, Skills & Experience, Communication Network | | | | | |

Since this MLR model is statistically significant (according to sig. value of F), the following prediction equation can be estimated:

$$\hat{y} F = 0.859* - 0.0146 HS + 0.191 DA + 0.588 SE + 0.116 CN$$

Where:

$\hat{y} F$: The Financial dimension of Organizational performance

(*): β_0 ; that is the constant (the predicted value of $\hat{y} F$ when all IT dimensions are 0).

HS: Hardware & Software

DA: Database Accuracy

SE: Skills & Experience

CN: Communication Network

This equation shows that the financial dimension of Organizational Performance at the Palestinian Insurance Companies is positively impacted only by three out of four of the IT dimensions. The descending order of these positive impacts' extent is; Skills & Experience, Data Accuracy, then Communication Network. As for the Hardware & Software dimension, it was found to have a negative impact on the financial dimension of OP.

❖ Customer dimension of BSC as a dependent variable

The results of MLR carried out to examine the impact that the dimensions of IT have on the customer dimension of the BSC as shown in **Table (4.13)** revealed sig. P-values of less than ($\alpha \leq 0.05$) only for three of the IT dimensions that are; Database Accuracy, Skills & Experience, and Communication Network. This finding supports the rejection of the null hypothesis: "There is no statistically significant impact of information technology at the significance level ($\alpha \leq 0.05$) on the customer dimension of organizational performance" for each of the previously mentioned three dimensions. On the contrary, the sig. P-value for the Hardware & Software dimension is greater than ($\alpha \leq 0.05$) which indicates failure to reject the null hypothesis in regards to this dimension.

The sig. value of F shows that this MLR model is statistically significant which allows for the following prediction equation to be estimated:

$$\hat{y} C = 0.283 DA + 0.291 SE + 0.171 CN$$

Where:

$\hat{y} C$: The Customer dimension of Organizational performance

DA: Database Accuracy

SE: Skills & Experience

CN: Communication Network

It's clear from this estimated equation that the customer dimension of Organizational Performance at the Palestinian Insurance Companies is positively impacted only by three out of four of the IT dimensions. The descending order of these positive impacts' extent is; Skills & Experience, Data Accuracy, then Communication Network. As for the Hardware & Software dimension, it was found to have no impact on the customer dimension of OP.

| Table (4.13): The Impact of IT D.s on Customer D. of BSC | | | | | |
|---|------------------------------------|-------------------|----------------------------------|----------|--------------|
| Coefficients | | | | | |
| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | B | Std. Error | Beta | | |
| (Constant) | 0.196 | 0.320 | - | 0.612 | 0.541 |
| Hardware & Software | 0.158 | 0.098 | 0.110 | 1.614 | 0.108 |
| Database Accuracy | 0.283 | 0.083 | 0.242 | 3.429 | 0.001 |
| Skills & Experience | 0.291 | 0.070 | 0.270 | 4.177 | 0.000 |
| Communication Network | 0.171 | 0.061 | 0.162 | 2.799 | 0.006 |
| R = 0.629, Adjusted R square = 0.386, F = 39.9, sig. for F = 0.000 | | | | | |
| a. Dependent Variable: Customer Dimension of BSC | | | | | |

b. Predictors: (Constant), Hardware & Software, Database Accuracy, Skills & Experience, Communication Network

❖ Internal Operations dimension of BSC as a dependent variable

Examining **Table (4.14)** which reveals the results of MLR conducted for purposes of studying the impact that the dimensions of IT have on the Internal Operations dimension of the BSC, it is found that the sig. P-values are less than ($\alpha \leq 0.05$) for three of the IT dimensions that are; Database Accuracy, Skills & Experience, and Communication Network. This observation advocates the rejection of the null hypothesis: "There is no statistically significant impact of information technology at the significance level ($\alpha \leq 0.05$) on the Internal Operations dimension of organizational performance" for each of the previously mentioned three dimensions. As for the Hardware & Software dimension, the sig. P-value is greater than ($\alpha \leq 0.05$) which implies failure to reject the null hypothesis in relation to this dimension.

| Table (4.14): The Impact of IT D.s on Internal Operations D. of BSC | | | | | |
|--|------------------------------------|-------------------|----------------------------------|----------|--------------|
| Coefficients | | | | | |
| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | B | Std. Error | Beta | | |
| (Constant) | 1.002 | 0.249 | - | 4.020 | 0.000 |
| Hardware & Software | -0.004 | 0.077 | -0.004 | -0.058 | 0.954 |
| Database Accuracy | 0.255 | 0.064 | 0.270 | 3.957 | 0.000 |
| Skills & Experience | 0.290 | 0.054 | 0.333 | 5.345 | 0.000 |
| Communication Network | 0.180 | 0.047 | 0.212 | 3.791 | 0.000 |
| R = 0.662, Adjusted R square = 0.428, F = 47.3, sig. for F = 0.000 | | | | | |

| |
|---|
| a. Dependent Variable: Internal Operations Dimension of BSC |
| b. Predictors: (Constant), Hardware & Software, Database Accuracy, Skills & Experience, Communication Network |

Due to the sig. value of F being less than ($\alpha \leq 0.05$), this MLR model is considered statistically significant allowing for the estimation of the following prediction equation:

$$\hat{y} \text{ IO} = 1.002* + 0.255 \text{ DA} + 0.290 \text{ SE} + 0.180 \text{ CN}$$

Where:

$\hat{y} \text{ IO}$: The Internal Operations dimension of Organizational performance

(*): β_0 ; that is the constant (the predicted value of $\hat{y} \text{ IO}$ when all IT dimensions are 0).

DA: Database Accuracy

SE: Skills & Experience

CN: Communication Network

The estimated equation reveals that the Internal Operations dimension of Organizational Performance at the Palestinian Insurance Companies is positively impacted only by three out of four of the IT dimensions. The descending order of these positive impacts' extent is; Skills & Experience, Data Accuracy, then Communication Network. As for the Hardware & Software dimension, it was found to have no impact on the Internal Operations dimension of OP.

❖ Education & Growth dimension of BSC as a dependent variable

Checking **Table (4.15)** detailing the results of MLR applied to examine the impact that the dimensions of IT have on the Education & Growth dimension of the BSC, it is noticed that the sig. P-values are less than ($\alpha \leq 0.05$) only for two of the IT dimensions that are; Database Accuracy and Skills & Experience. This observation supports the rejection of the null hypothesis: "There is no statistically significant impact of information technology at the significance level ($\alpha \leq 0.05$) on the Education & Growth dimension of organizational performance" for both previously mentioned dimensions. However, in regards to the remaining two dimensions (Hardware & software and Communication Network), the sig. P-values indicates failure to reject the null hypothesis. Since this MLR model is statistically significant (according to sig. value of F), the following prediction equation can be estimated:

$$\hat{y} \text{ EG} = -0.964* + 0.494 \text{ DA} + 0.722 \text{ SE}$$

Where:

$\hat{y} \text{ EG}$: The Education & Growth dimension of Organizational performance

(*): β_0 ; that is the constant (the predicted value of $\hat{y} \text{ EG}$ when all IT dimensions are 0).

DA: Database Accuracy

SE: Skills & Experience

This equation shows that the Education & Growth dimension of Organizational Performance at the Palestinian Insurance Companies is positively impacted only by two out of four of the IT dimensions. These two dimensions are; Skills & Experience and Data Accuracy, with the Skills & Experience dimension having the greater extent of impact among the two. As for the Hardware &

Software and the Communication Network dimensions, no impact on the Education and Growth dimension of OP was found.

| Table (4.15): The Impact of IT D.s on Education & Growth D. of BSC | | | | | |
|---|------------------------------------|-------------------|----------------------------------|----------|--------------|
| Coefficients | | | | | |
| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | B | Std. Error | Beta | | |
| (Constant) | -0.964 | 0.398 | - | -2.419 | 0.016 |
| Hardware & Software | -0.104 | 0.122 | -0.053 | -0.854 | 0.394 |
| Database Accuracy | 0.494 | 0.103 | 0.312 | 4.806 | 0.000 |
| Skills & Experience | 0.722 | 0.087 | 0.494 | 8.327 | 0.000 |
| Communication Network | 0.051 | 0.076 | 0.036 | 0.671 | 0.503 |
| R = 0.701, Adjusted R square = 0.483, F = 58.7, sig. for F = 0.000 | | | | | |
| a. Dependent Variable: Education & Growth Dimension of BSC | | | | | |
| b. Predictors: (Constant), Hardware & Software, Database Accuracy, Skills & Experience, Communication Network | | | | | |

❖ Social Responsibility dimension of BSC as a dependent variable

The results of MLR carried out to explore the impact that the dimensions of IT have on the Social Responsibility dimension of the BSC as viewed in **Table (4.16)** revealed sig. P-values of less than ($\alpha \leq 0.05$) only for three of the IT dimensions that are; Hardware & Software, Database Accuracy, and Skills & Experience. This finding advocates the rejection of the null hypothesis: "There is no statistically significant impact of information technology at the significance level ($\alpha \leq 0.05$) on the Social Responsibility dimension of organizational performance" for each of the previously mentioned three dimensions. On the contrary, the sig. P-value for the Communication Network

dimension is greater than ($\alpha \leq 0.05$) which indicates a failure to reject the null hypothesis in relation to this dimension.

| Table (4.16): The Impact of IT D.s on Social Responsibility D. of BSC | | | | | |
|---|------------------------------------|-------------------|----------------------------------|----------|--------------|
| Coefficients | | | | | |
| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | B | Std. Error | Beta | | |
| (Constant) | 0.233 | 0.410 | - | 0.568 | 0.571 |
| Hardware & Software | 0.262 | 0.126 | 0.152 | 2.078 | 0.039 |
| Database Accuracy | 0.325 | 0.106 | 0.233 | 3.069 | 0.002 |
| Skills & Experience | 0.378 | 0.089 | 0.295 | 4.237 | 0.000 |
| Communication Network | -0.089 | 0.078 | -0.071 | -1.137 | 0.257 |
| R = 0.549, Adjusted R square = 0.290, F = 26.2, sig. for F = 0.000 | | | | | |
| a. Dependent Variable: Social Responsibility Dimension of BSC | | | | | |
| b. Predictors: (Constant), Hardware & Software, Database Accuracy, Skills & Experience, Communication Network | | | | | |

The sig. value of F shows that this MLR model is statistically significant which allows for the following prediction equation to be estimated:

$$\hat{y} \text{ SR} = 0.262 \text{ HS} + 0.325 \text{ DA} + 0.378 \text{ SE}$$

Where:

$\hat{y} \text{ SR}$: The Social Responsibility dimension of Organizational performance

HS: Hardware & Software

DA: Database Accuracy

SE: Skills & Experience

It's clear from this estimated equation that the Social Responsibility dimension of Organizational Performance at the Palestinian Insurance Companies is positively impacted only by three out of four of the IT dimensions. The descending order of these positive impacts' extent is; Skills & Experience, Data Accuracy, then Hardware & Software. As for the Communication Network dimension, it was found to have no impact on the Social Responsibility dimension of OP.

4.3.2 MLR assuming the total score of BSC (Total Organizational Performance) as a dependent variable

This section studies the impact that IT dimensions (each as an independent variable) have on the total score of the BSC, that is the total Organizational Performance (as a dependent variable) at the Palestinian Insurance Companies.

| Table (4.17): The Impact of IT D.s on the total Organizational Performance | | | | | |
|---|------------------------------------|-------------------|----------------------------------|----------|--------------|
| Coefficients | | | | | |
| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | B | Std. Error | Beta | | |
| (Constant) | 0.315 | 0.244 | - | 1.289 | 0.198 |
| Hardware & Software | 0.026 | 0.075 | 0.020 | 0.346 | 0.729 |
| Database Accuracy | 0.298 | 0.063 | 0.288 | 4.729 | 0.000 |
| Skills & Experience | 0.445 | 0.053 | 0.465 | 8.363 | 0.000 |
| Communication Network | 0.102 | 0.047 | 0.109 | 2.198 | 0.029 |
| R = 0.743, Adjusted R square = 0.545, F = 75.1, sig. for F = 0.000 | | | | | |
| a. Dependent Variable: Organizational Performance (The total score of the Balanced Scorecard) | | | | | |

b. Predictors: (Constant), Hardware & Software, Database Accuracy, Skills & Experience, Communication Network

Studying **Table (4.17)** which reveals the results of MLR applied to examine the impact that the dimensions of IT (as independent variables) have on the total Organizational Performance using BSC (as a dependent variable), it is established that the sig. P-values are less than ($\alpha \leq 0.05$) for three of the IT dimensions that are; Database Accuracy, Skills & Experience, and Communication Network. This observation supports the rejection of the null hypothesis: "There is no statistically significant impact of information technology at the significance level ($\alpha \leq 0.05$) on organizational performance at Insurance Companies in Palestine using the balanced scorecard" for each of the previously mentioned three dimensions. As for the Hardware & Software dimension, the sig. P-value implies failure to reject this null hypothesis in regards to this dimension.

According to sig. value of F, this MLR model is considered statistically significant allowing for the development of the following prediction equation:

$$\hat{y} \text{ OP} = 0.298 \text{ DA} + 0.445 \text{ SE} + 0.102 \text{ CN}$$

Where:

$\hat{y} \text{ OP}$: Organizational performance using the BSC

DA: Database Accuracy

SE: Skills & Experience

CN: Communication Network

The estimated prediction equation reveals that Organizational Performance at Insurance Companies in Palestine using the balanced scorecard is positively impacted only by three out of four of the IT dimensions. The descending order of these positive impacts' extent is; Skills & Experience, Data Accuracy, then Communication Network. As for the Hardware & Software dimension, it was found to have no impact on OP using the Balanced Scorecard.

4.4 Independent Samples T-test and One-Way ANOVA

This section strives to investigate the presence or absence of differences indication between the means of the participants' responses regarding the two main variables of the study (IT and BSC) upon specific demographic factors including; Gender, Educational Degree, Age, Job Title, Years of Experience, and the Insurance Company. This purpose is achieved through the application of the Independent Samples T-test or the One-Way ANOVA on the dimensions composing each main variable and on the total score of both variables.

4.4.1 Information Technology

This section studies, through its sub-sections, the rejection or failure of rejection of the null hypothesis: "There are no statistical differences indication at the significance level ($\alpha \leq 0.05$) between the means of the participants' responses regarding Information Technology upon the demographic factors (Gender, Educational Degree, Age, Job Title, Years of Experience, and the Insurance Company)".

❖ Gender

Examining the results of the applied Independent Samples T-test detailed in **Table (4.18)**, it is found that the sig. P-values for all of the dimensions except the Skills & Experience dimension are greater than ($\alpha \leq 0.05$). This indicates a failure to reject the null hypothesis: "There are no statistical differences indication at the significance level ($\alpha \leq 0.05$) between the means of the participants' responses regarding Information Technology upon the Gender factor" in relation to these three dimensions. on the contrary, the Skills & Experience dimension has a sig. P-value of less than ($\alpha \leq 0.05$), so the null hypothesis is rejected in relation to this dimension, and the Alternative Hypothesis (AH) indicating the presence of statistically significant differences between the means of responses regarding this dimension upon the gender factor is accepted.

| Table (4.18): Independent T-test Results for IT D.s upon (Gender) | | | | | | |
|--|-----------------------------|--|-------------|-------------------------------------|-----------|--------------|
| Dimension | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | |
| | | F | Sig. | t | df | Sig. |
| Hardware & Software | Equal Variances Assumed | 0.328 | 0.568 | -0.181 | 246 | 0.856 |
| | Equal Variances Not Assumed | - | - | -0.180 | 118.893 | 0.858 |
| Database Accuracy | Equal Variances Assumed | 4.535 | 0.034 | 1.514 | 246 | 0.131 |
| | Equal Variances Not Assumed | - | - | 1.626 | 140.545 | 0.106 |
| Skills & Experience | Equal Variances Assumed | 0.167 | 0.683 | 2.133 | 246 | 0.034 |
| | Equal Variances Not Assumed | - | - | 2.255 | 135.548 | 0.026 |

| | | | | | | |
|------------------------------|------------------------------------|--------|-------|--------|---------|-------|
| Communication Network | Equal Variances Assumed | 10.730 | 0.001 | -0.173 | 246 | 0.862 |
| | Equal Variances Not Assumed | - | - | -0.204 | 174.229 | 0.839 |
| Total of IT | Equal Variances Assumed | 2.684 | 0.103 | 1.341 | 246 | 0.181 |
| | Equal Variances Not Assumed | - | - | 1.499 | 154.228 | 0.136 |

❖ Educational Degree

The results of the One-Way ANOVA shown in **Table (4.19)**, demonstrate sig. P-values that are greater than ($\alpha \leq 0.05$) for both; the Database Accuracy and the Communication Network dimensions. This advocates failure to reject the null hypothesis: "There are no statistical differences indication at the significance level ($\alpha \leq 0.05$) between the means of the participants' responses regarding Information Technology upon the Educational Degree factor" in relation to these two dimensions. As for; the Hardware and Software dimension, the Skills & Experience dimension, and the total of the IT variable, all have sig. P-values of less than ($\alpha \leq 0.05$) which indicate the rejection of the null hypothesis in relation to both dimensions and the total of the IT variable, and the acceptance of the AH, that is; the presence of statistically significant differences.

| Table (4.19): One-Way ANOVA Results for IT D.s upon (Educational Degree) | | | | | | |
|---|-----------------------|-----------------------|-----------|--------------------|----------|--------------|
| Dimension | | Sum of Squares | df | Mean Square | F | Sig. |
| Hardware & Software | Between Groups | 1.502 | 2 | 0.751 | 5.018 | 0.007 |
| | Within Groups | 36.675 | 245 | 0.150 | - | - |
| | Total | 38.178 | 247 | - | - | - |

| | | | | | | |
|--------------------------------|-----------------------|--------|-----|-------|-------|--------------|
| Database Accuracy | Between Groups | 0.759 | 2 | 0.380 | 1.611 | 0.202 |
| | Within Groups | 57.728 | 245 | 0.236 | - | - |
| | Total | 58.487 | 247 | - | - | - |
| Skills & Experience | Between Groups | 2.133 | 2 | 1.067 | 3.924 | 0.021 |
| | Within Groups | 66.587 | 245 | 0.272 | - | - |
| | Total | 68.720 | 247 | - | - | - |
| Communication Network | Between Groups | 0.193 | 2 | 0.097 | 0.331 | 0.719 |
| | Within Groups | 71.623 | 245 | 0.292 | - | - |
| | Total | 71.817 | 247 | - | - | - |
| Total of IT | Between Groups | 1.002 | 2 | 0.501 | 3.356 | 0.036 |
| | Within Groups | 36.570 | 245 | 0.149 | - | - |
| | Total | 37.572 | 247 | - | - | - |

❖ Age

Table (4.20) Viewing the results of the One-Way ANOVA reveals sig. P-values that are less than ($\alpha \leq 0.05$) for three dimensions out of the four dimensions of IT, that are; Hardware and Software dimension, Database Accuracy, and Skills & Experience dimension. In addition, the total of the IT variable has a sig. P-value of less than ($\alpha \leq 0.05$). These findings support the rejection of the null hypothesis: "There are no statistical differences indication at the significance level ($\alpha \leq 0.05$) between the means of the participants' responses regarding Information Technology upon the Age factor" in relation to all three dimensions and to the total of the IT variable, and the acceptance of the AH that there are statistically significant differences. On the other hand, in relation to the Communication Network dimension, the null hypothesis failed to be rejected.

| Table (4.20): One-Way ANOVA Results for IT D.s upon (Age) | | | | | | |
|--|-----------------------|-----------------------|-----------|--------------------|----------|--------------|
| Dimension | | Sum of Squares | df | Mean Square | F | Sig. |
| Hardware & Software | Between Groups | 1.274 | 3 | 0.425 | 2.808 | 0.040 |
| | Within Groups | 36.904 | 244 | 0.151 | - | - |
| | Total | 38.178 | 247 | - | - | - |
| Database Accuracy | Between Groups | 1.899 | 3 | 0.633 | 2.729 | 0.045 |
| | Within Groups | 56.589 | 244 | 0.232 | - | - |
| | Total | 58.487 | 247 | - | - | - |
| Skills & Experience | Between Groups | 3.184 | 3 | 1.061 | 3.951 | 0.009 |
| | Within Groups | 65.537 | 244 | 0.269 | - | - |
| | Total | 68.720 | 247 | - | - | - |
| Communication Network | Between Groups | .345 | 3 | 0.115 | 0.392 | 0.759 |
| | Within Groups | 71.472 | 244 | 0.293 | - | - |
| | Total | 71.817 | 247 | - | - | - |
| Total of IT | Between Groups | 1.315 | 3 | 0.438 | 2.951 | 0.033 |
| | Within Groups | 36.256 | 244 | 0.149 | - | - |
| | Total | 37.572 | 247 | - | - | - |

❖ Job Title

Studying the results of the One-Way ANOVA detailed in **Table (4.21)**, it is found that the sig. P-values for all of the dimensions except the Hardware & software and Database Accuracy

dimensions are greater than ($\alpha \leq 0.05$). This indicates a failure to reject the null hypothesis: "There are no statistical differences indication at the significance level ($\alpha \leq 0.05$) between the means of the participants' responses regarding Information Technology upon the Job Title factor" in relation to these dimensions. On the contrary, the Hardware & software and Database Accuracy dimensions have sig. P-values of less than ($\alpha \leq 0.05$), so the null hypothesis is rejected in relation to these two dimensions, and the AH that there are statistically significant differences is accepted.

| Table (4.21): One-Way ANOVA Results for IT D.s upon (Job Title) | | | | | | |
|--|-----------------------|-----------------------|-----------|--------------------|----------|--------------|
| Dimension | | Sum of Squares | df | Mean Square | F | Sig. |
| Hardware & Software | Between Groups | 1.137 | 3 | 0.379 | 2.498 | 0.060 |
| | Within Groups | 37.040 | 244 | 0.152 | - | - |
| | Total | 38.178 | 247 | - | - | - |
| Database Accuracy | Between Groups | 1.953 | 3 | 0.651 | 2.810 | 0.040 |
| | Within Groups | 56.534 | 244 | 0.232 | - | - |
| | Total | 58.487 | 247 | - | - | - |
| Skills & Experience | Between Groups | 1.317 | 3 | 0.439 | 1.589 | 0.193 |
| | Within Groups | 67.403 | 244 | 0.276 | - | - |
| | Total | 68.720 | 247 | - | - | - |
| Communication Network | Between Groups | 0.315 | 3 | 0.105 | 0.358 | 0.783 |
| | Within Groups | 71.502 | 244 | 0.293 | - | - |
| | Total | 71.817 | 247 | - | - | - |
| Total of IT | Between Groups | 0.757 | 3 | 0.252 | 1.672 | 0.174 |
| | Within Groups | 36.815 | 244 | 0.151 | - | - |

| | | | | | | |
|--|--------------|--------|-----|---|---|---|
| | Total | 37.572 | 247 | - | - | - |
|--|--------------|--------|-----|---|---|---|

❖ Years of Experience

Looking at **Table (4.22)** demonstrating the results of the applied One-Way ANOVA, it is noticed that the sig. P-values for all the dimensions except the Communication Network dimension are greater than ($\alpha \leq 0.05$). This indicates a failure to reject the null hypothesis: "There are no statistical differences indication at the significance level ($\alpha \leq 0.05$) between the means of the participants' responses regarding Information Technology upon the Years of Experience factor" in relation to these dimensions. However, the Communication Network dimension has a sig. P-value of less than ($\alpha \leq 0.05$), which means that the null hypothesis is rejected in relation to this dimension, and the AH, that is; the presence of statistically significant differences, is accepted.

| Table (4.22): One-Way ANOVA Results for IT D.s upon (Years of Experience) | | | | | | |
|--|-----------------------|-----------------------|-----------|--------------------|----------|-------------|
| Dimension | | Sum of Squares | Df | Mean Square | F | Sig. |
| Hardware & Software | Between Groups | 0.747 | 3 | 0.249 | 1.623 | 0.185 |
| | Within Groups | 37.431 | 244 | 0.153 | - | - |
| | Total | 38.178 | 247 | - | - | - |
| Database Accuracy | Between Groups | 1.288 | 3 | 0.429 | 1.831 | 0.142 |
| | Within Groups | 57.200 | 244 | 0.234 | - | - |
| | Total | 58.487 | 247 | - | - | - |
| Skills & Experience | Between Groups | 0.897 | 3 | 0.299 | 1.076 | 0.360 |
| | Within Groups | 67.823 | 244 | 0.278 | - | - |

| | | | | | | |
|------------------------------|-----------------------|--------|-----|-------|-------|--------------|
| | Total | 68.720 | 247 | - | - | - |
| Communication Network | Between Groups | 4.861 | 3 | 1.620 | 5.905 | 0.001 |
| | Within Groups | 66.956 | 244 | 0.274 | - | - |
| | Total | 71.817 | 247 | - | - | - |
| Total of IT | Between Groups | 0.468 | 3 | 0.156 | 1.025 | 0.382 |
| | Within Groups | 37.104 | 244 | 0.152 | - | - |
| | Total | 37.572 | 247 | - | - | - |

❖ Insurance Company

Table (4.23) Viewing the results of the One-Way ANOVA reveals sig. P-values that are less than ($\alpha \leq 0.05$) for all four dimensions of IT and for the total of the IT variable. These observations support the rejection of the null hypothesis: "There are no statistical differences indication at the significance level ($\alpha \leq 0.05$) between the means of the participants' responses regarding Information Technology upon the Insurance Company factor" in relation to all dimensions and to the total of the IT variable, and the acceptance of the AH that there are statistically significant differences.

| Table (4.23): One-Way ANOVA Results for IT D.s upon (Insurance Company) | | | | | | |
|--|-----------------------|-----------------------|-----------|--------------------|----------|--------------|
| Dimension | | Sum of Squares | df | Mean Square | F | Sig. |
| Hardware & Software | Between Groups | 4.006 | 7 | 0.572 | 4.019 | 0.000 |
| | Within Groups | 34.172 | 240 | 0.142 | - | - |
| | Total | 38.178 | 247 | - | - | - |
| | Between Groups | 15.659 | 7 | 2.237 | 12.535 | 0.000 |

| | | | | | | |
|--------------------------------|-----------------------|--------|-----|-------|--------|--------------|
| Database Accuracy | Within Groups | 42.829 | 240 | 0.178 | - | - |
| | Total | 58.487 | 247 | - | - | - |
| Skills & Experience | Between Groups | 12.787 | 7 | 1.827 | 7.838 | 0.000 |
| | Within Groups | 55.933 | 240 | 0.233 | - | - |
| | Total | 68.720 | 247 | - | - | - |
| Communication Network | Between Groups | 16.244 | 7 | 2.321 | 10.022 | 0.000 |
| | Within Groups | 55.573 | 240 | 0.232 | - | - |
| | Total | 71.817 | 247 | - | - | - |
| Total of IT | Between Groups | 8.900 | 7 | 1.271 | 10.643 | 0.000 |
| | Within Groups | 28.672 | 240 | 0.119 | - | - |
| | Total | 37.572 | 247 | - | - | - |

4.4.2 Balanced Scorecard

Through its different sub-sections, this section investigates the rejection or failure rejection of the null hypothesis: "There are no statistical differences indication at the significance level ($\alpha \leq 0.05$) between the means of the participants' responses regarding Organizational Performance using the Balanced Scorecard upon the demographic factors (Gender, Educational Degree, Age, Job Title, Years of Experience, and the Insurance Company)".

❖ Gender

Table (4.24): Independent T-test Results for BSC D.s upon (Gender)

| Dimension | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | |
|---------------------------------|-----------------------------|---|-------|------------------------------|---------|-------|
| | | F | Sig. | t | df | Sig. |
| Financial Dimension | Equal Variances Assumed | 0.554 | 0.457 | 1.196 | 246 | 0.233 |
| | Equal Variances Not Assumed | - | - | 1.228 | 127.516 | 0.222 |
| Customer Dimension | Equal Variances Assumed | 1.402 | 0.238 | 0.407 | 246 | 0.684 |
| | Equal Variances Not Assumed | - | - | 0.435 | 139.025 | 0.664 |
| Internal Operation Dimension | Equal Variances Assumed | 0.454 | 0.501 | 0.823 | 246 | 0.412 |
| | Equal Variances Not Assumed | - | - | 0.906 | 148.650 | 0.367 |
| Education & Growth Dimension | Equal Variances Assumed | 0.047 | 0.828 | 0.115 | 246 | 0.909 |
| | Equal Variances Not Assumed | - | - | 0.117 | 124.438 | 0.907 |
| Social Responsibility Dimension | Equal Variances Assumed | 0.239 | 0.626 | 1.399 | 246 | 0.163 |
| | Equal Variances Not Assumed | - | - | 1.456 | 131.086 | 0.148 |
| Total Score of BSC | Equal Variances Assumed | 0.026 | 0.872 | 0.816 | 246 | 0.415 |
| | Equal Variances Not Assumed | - | - | 0.868 | 137.434 | 0.387 |

Studying the results of the applied Independent Samples T-test detailed in **Table (4.24)**, it is found that the sig. P-values are greater than ($\alpha \leq 0.05$) for all five dimensions of BSC and for the total score of BSC. This advocates failure to reject the null hypothesis: "There are no statistical differences indication at the significance level ($\alpha \leq 0.05$) between the means of the participants' responses regarding Organizational Performance using the Balanced Scorecard upon the Gender factor" in relation to all BSC dimensions and to the total score of BSC.

❖ Educational Degree

| Table (4.25): One-Way ANOVA Results for BSC D.s upon (Educational Degree) | | | | | | |
|--|-----------------------|-----------------------|-----------|--------------------|----------|--------------|
| Dimension | | Sum of Squares | df | Mean Square | F | Sig. |
| Financial Dimension | Between Groups | 2.187 | 2 | 1.093 | 5.252 | 0.006 |
| | Within Groups | 51.012 | 245 | 0.208 | - | - |
| | Total | 53.199 | 247 | - | - | - |
| Customer Dimension | Between Groups | 0.701 | 2 | 0.351 | 1.087 | 0.339 |
| | Within Groups | 79.019 | 245 | 0.323 | - | - |
| | Total | 79.720 | 247 | - | - | - |
| Internal Operations Dimension | Between Groups | 1.103 | 2 | 0.552 | 2.654 | 0.072 |
| | Within Groups | 50.931 | 245 | 0.208 | - | - |
| | Total | 52.034 | 247 | - | - | - |
| Education & Growth Dimension | Between Groups | 4.450 | 2 | 2.225 | 3.825 | 0.023 |
| | Within Groups | 142.525 | 245 | 0.582 | - | - |
| | Total | 146.975 | 247 | - | - | - |
| Social Responsibility Dimension | Between Groups | 3.053 | 2 | 1.526 | 3.390 | 0.035 |
| | Within Groups | 110.302 | 245 | 0.450 | - | - |
| | Total | 113.355 | 247 | - | - | - |
| Total Score of BSC | Between Groups | 1.669 | 2 | 0.835 | 3.338 | 0.037 |
| | Within Groups | 61.254 | 245 | 0.250 | - | - |
| | Total | 62.924 | 247 | - | - | - |

The results of the One-Way ANOVA viewed in **Table (4.25)**, demonstrates sig. P-values less than ($\alpha \leq 0.05$) for three BSC dimensions that are; the Financial, the Education & Growth, and the

Social Responsibility dimensions. In addition, the total score of BSC has a sig. P-value of less than ($\alpha \leq 0.05$). These findings support the rejection of the null hypothesis: "There are no statistical differences indication at the significance level ($\alpha \leq 0.05$) between the means of the participants' responses regarding Organizational Performance using the Balanced Scorecard upon the Educational Degree factor" in relation to all three dimensions and to the total score of BSC, and the acceptance of the AH that there are statistically significant differences. On the other hand, in relation to both; the Customer dimension and the Internal Operations dimension, the null hypothesis failed to be rejected.

❖ Age

| Table (4.26): One-Way ANOVA Results for BSC D.s upon (Age) | | | | | | |
|---|-----------------------|-----------------------|-----------|--------------------|----------|--------------|
| Dimension | | Sum of Squares | df | Mean Square | F | Sig. |
| Financial Dimension | Between Groups | 2.044 | 3 | 0.681 | 3.251 | 0.022 |
| | Within Groups | 51.154 | 244 | 0.210 | - | - |
| | Total | 53.199 | 247 | - | - | - |
| Customer Dimension | Between Groups | 3.219 | 3 | 1.073 | 3.422 | 0.018 |
| | Within Groups | 76.502 | 244 | 0.314 | - | - |
| | Total | 79.720 | 247 | - | - | - |
| Internal Operations Dimension | Between Groups | 2.527 | 3 | 0.842 | 4.152 | 0.007 |
| | Within Groups | 49.507 | 244 | 0.203 | - | - |
| | Total | 52.034 | 247 | - | - | - |
| | Between Groups | 6.253 | 3 | 2.084 | 3.614 | 0.014 |

| | | | | | | |
|---|-----------------------|---------|-----|-------|-------|--------------|
| Education & Growth Dimension | Within Groups | 140.722 | 244 | 0.577 | - | - |
| | Total | 146.975 | 247 | - | - | - |
| Social Responsibility Dimension | Between Groups | 5.202 | 3 | 1.734 | 3.912 | 0.009 |
| | Within Groups | 108.153 | 244 | 0.443 | - | - |
| | Total | 113.355 | 247 | - | - | - |
| Total Score of BSC | Between Groups | 3.193 | 3 | 1.064 | 4.348 | 0.005 |
| | Within Groups | 59.731 | 244 | 0.245 | - | - |
| | Total | 62.924 | 247 | - | - | - |

Table (4.26) Viewing the results of the One-Way ANOVA reveals sig. P-values that are less than ($\alpha \leq 0.05$) for all five dimensions of BSC and for the total score of BSC. This indicates the rejection of the null hypothesis: "There are no statistical differences indication at the significance level ($\alpha \leq 0.05$) between the means of the participants' responses regarding Organizational Performance using the Balanced Scorecard upon the Age factor" in relation to all BSC dimensions and to the total score of BSC, and the acceptance of the AH that there are statistically significant differences.

❖ Job Title

| Table (4.27): One-Way ANOVA Results for BSC D.s upon (Job Title) | | | | | | |
|---|-----------------------|-----------------------|-----------|--------------------|----------|-------------|
| Dimension | | Sum of Squares | Df | Mean Square | F | Sig. |
| Financial Dimension | Between Groups | 0.818 | 3 | 0.273 | 1.271 | 0.285 |
| | Within Groups | 52.380 | 244 | 0.215 | - | - |

| | | | | | | |
|---|-----------------------|---------|-----|-------|--------|--------------|
| | Total | 53.199 | 247 | - | - | - |
| Customer Dimension | Between Groups | 3.369 | 3 | 1.123 | 3.589 | 0.014 |
| | Within Groups | 76.351 | 244 | 0.313 | - | - |
| | Total | 79.720 | 247 | - | - | - |
| Internal Operations Dimension | Between Groups | 2.157 | 3 | 0.719 | 3.517 | 0.016 |
| | Within Groups | 49.878 | 244 | 0.204 | - | - |
| | Total | 52.034 | 247 | - | - | - |
| Education & Growth Dimension | Between Groups | 16.790 | 3 | 5.597 | 10.490 | 0.000 |
| | Within Groups | 130.185 | 244 | 0.534 | - | - |
| | Total | 146.975 | 247 | - | - | - |
| Social Responsibility Dimension | Between Groups | 11.447 | 3 | 3.816 | 9.136 | 0.000 |
| | Within Groups | 101.908 | 244 | 0.418 | - | - |
| | Total | 113.355 | 247 | - | - | - |
| Total Score of BSC | Between Groups | 4.125 | 3 | 1.375 | 5.706 | 0.001 |
| | Within Groups | 58.799 | 244 | 0.241 | - | - |
| | Total | 62.924 | 247 | - | - | - |

Examining the results of the One-Way ANOVA revealed in **Table (4.27)**, it is found that the sig. P-values are less than ($\alpha \leq 0.05$) for four of the BSC dimensions, which are; the Customer, the Internal Operations, the Education & Growth, and the Social Responsibility dimensions. Moreover, the total score of BSC has a sig. P-value of less than ($\alpha \leq 0.05$). This indicates the rejection of the null hypothesis: "There are no statistical differences indication at the significance level ($\alpha \leq 0.05$) between the means of the participants' responses regarding Organizational Performance using the Balanced Scorecard upon the Job Title factor" in relation to all four

dimensions and to the total score of BSC, and the acceptance of the AH. On the contrary, in relation to the Financial dimension, the null hypothesis failed to be rejected.

❖ **Years of Experience**

| Table (4.28): One-Way ANOVA Results for BSC D.s upon (Years of Experience) | | | | | | |
|---|-----------------------|-----------------------|-----------|--------------------|----------|-------------|
| Dimension | | Sum of Squares | df | Mean Square | F | Sig. |
| Financial Dimension | Between Groups | 1.079 | 3 | 0.360 | 1.684 | 0.171 |
| | Within Groups | 52.119 | 244 | 0.214 | - | - |
| | Total | 53.199 | 247 | - | - | - |
| Customer Dimension | Between Groups | 1.269 | 3 | 0.423 | 1.316 | 0.270 |
| | Within Groups | 78.451 | 244 | 0.322 | - | - |
| | Total | 79.720 | 247 | - | - | - |
| Internal Operations Dimension | Between Groups | 0.294 | 3 | 0.098 | 0.463 | 0.708 |
| | Within Groups | 51.740 | 244 | 0.212 | - | - |
| | Total | 52.034 | 247 | - | - | - |
| Education & Growth Dimension | Between Groups | 1.079 | 3 | 0.360 | 0.602 | 0.614 |
| | Within Groups | 145.896 | 244 | 0.598 | - | - |
| | Total | 146.975 | 247 | - | - | - |
| Social Responsibility Dimension | Between Groups | 3.466 | 3 | 1.155 | 2.566 | 0.055 |
| | Within Groups | 109.888 | 244 | 0.450 | - | - |
| | Total | 113.355 | 247 | - | - | - |
| | Between Groups | 0.957 | 3 | 0.319 | 1.256 | 0.290 |

| | | | | | | |
|---------------------------|----------------------|--------|-----|-------|---|---|
| Total Score of BSC | Within Groups | 61.966 | 244 | 0.254 | - | - |
| | Total | 62.924 | 247 | - | - | - |

The results of the One-Way ANOVA viewed in **Table (4.28)**, demonstrate sig. P-values that are greater than ($\alpha \leq 0.05$) for all five dimensions of BSC and for the total score of BSC. This supports the failure to reject the null hypothesis: "There are no statistical differences indication at the significance level ($\alpha \leq 0.05$) between the means of the participants' responses regarding Organizational Performance using the Balanced Scorecard upon the Years of Experience factor" in relation to all BSC dimensions and to the total score of BSC.

❖ **Insurance Company**

| Table (4.29): One-Way ANOVA Results for BSC D.s upon (Insurance Company) | | | | | | |
|---|-----------------------|-----------------------|-----------|--------------------|----------|--------------|
| Dimension | | Sum of Squares | df | Mean Square | F | Sig. |
| Financial Dimension | Between Groups | 14.031 | 7 | 2.004 | 12.283 | 0.000 |
| | Within Groups | 39.167 | 240 | 0.163 | - | - |
| | Total | 53.199 | 247 | - | - | - |
| Customer Dimension | Between Groups | 27.052 | 7 | 3.865 | 17.611 | 0.000 |
| | Within Groups | 52.668 | 240 | 0.219 | - | - |
| | Total | 79.720 | 247 | - | - | - |
| Internal Operations Dimension | Between Groups | 19.175 | 7 | 2.739 | 20.007 | 0.000 |
| | Within Groups | 32.859 | 240 | 0.137 | - | - |

| | | | | | | |
|---|-----------------------|---------|-----|-------|--------|--------------|
| | Total | 52.034 | 247 | - | - | - |
| Education & Growth Dimension | Between Groups | 38.336 | 7 | 5.477 | 12.099 | 0.000 |
| | Within Groups | 108.639 | 240 | 0.453 | - | - |
| | Total | 146.975 | 247 | - | - | - |
| Social Responsibility Dimension | Between Groups | 28.972 | 7 | 4.139 | 11.772 | 0.000 |
| | Within Groups | 84.383 | 240 | 0.352 | - | - |
| | Total | 113.355 | 247 | - | - | - |
| Total Score of BSC | Between Groups | 21.578 | 7 | 3.083 | 17.893 | 0.000 |
| | Within Groups | 41.346 | 240 | 0.172 | - | - |
| | Total | 62.924 | 247 | - | - | - |

Studying **Table (4.29)** detailing the results of the One-Way ANOVA, sig. P-values that are less than ($\alpha \leq 0.05$) for all five BSC dimensions and for the total score of BSC are noticed. These observations support rejection of the null hypothesis: "There are no statistical differences indication at the significance level ($\alpha \leq 0.05$) between the means of the participants' responses regarding Organizational Performance using the Balanced Scorecard upon the Insurance Company factor" in relation to all BSC dimensions and to the total score of BSC, and the acceptance of the AH that there are statistically significant differences.

Chapter Five: Results and Recommendations

Introduction

Building upon the previous discussions of the various sections of the study, this chapter pursues the answers of the study's sub-questions navigating its way to answer its main question, while deducing its most prominent conclusions and recommendations.

5.1 Results of the Study

This section employs the previous discussion of statistical analysis for the purpose of answering its sub-questions.

5.1.1 Sub-Question [1]: What is the reality of the application of Information Technology at Insurance Companies in Palestine from the participants' perspective?

Deriving from the previous discussion related to the descriptive statistics of the four dimensions of Information Technology in Tables (4.2 – 4.5); the reality of application of each dimension of IT at the Palestinian Insurance Companies (ICs) can be summarized as represented in Table (5.1). Deducing from the table, it is found that from the participants' perspective, Information Technology is applied with a high application percentage of {80.6%} and an average mean of {4.03} at the Insurance Companies in Palestine.

| Table (5.1): The reality of application of IT at the Palestine ICs | | |
|---|------------------------|--------------------|
| Dimension | Application (%) | Mean of Use |
| Hardware & Software | 81.2 | 4.06 |
| Database Accuracy | 83.8 | 4.19 |
| Skills & Experience | 73.4 | 3.67 |
| Communication Network | 83.8 | 4.19 |
| Total of IT | 80.6 | 4.03 |

5.1.2 Sub-Question [2]: What is the reality of Organizational Performance at Insurance Companies in Palestine using the Balanced Scorecard from the participants' perspective?

From the previous discussion related to the descriptive statistics of the five dimensions of the Balanced Scorecard in Tables (4.6 – 4.10); the reality of the level of Organizational Performance at the Palestinian Insurance Companies can be deduced as detailed in Table (5.2). The table shows that, from the participants' perspective, Organizational Performance using BSC at the Palestinian Insurance Companies has a high level, with a percentage of {74.4%} and an average mean of {3.72}.

| Table (5.2): Reality of Organizational Performance at the Palestinian ICs | | |
|--|------------------|-------------|
| Dimension | Level (%) | Mean |
| Financial Dimension | 74.2 | 3.71 |
| Customer Dimension | 76.2 | 3.81 |
| Internal Operations Dimension | 77.4 | 3.87 |
| Education & Growth Dimension | 71.0 | 3.55 |
| Social Responsibility Dimension | 73.6 | 3.68 |

| | | |
|---|-------------|-------------|
| Total of OP (Total Score of BSC) | 74.4 | 3.72 |
|---|-------------|-------------|

5.1.3 Sub-Question [3]: Are there significant relationships between Information Technology and the organizational performance measured through the Balanced Scorecard at Insurance Companies in Palestine?

Table (4.11) detailing the values of Pearson correlation coefficients revealed the presence of statistically significant relationships between Information Technology dimensions and the organizational performance measured using the Balanced Scorecard dimensions. These correlations had values that ranged from (+0.215) to (+0.765); representing weak to moderate positive correlations.

One of the most important findings derived from the table was the moderate positive correlation between the total of the IT variable and the total score of the BSC (Total OP) with the value of (+0.728). It was also found that the strongest correlation occurred between the Skills & Experience dimension and the financial dimension, while the weakest correlation occurred between the Communication Network dimension and the Social Responsibility dimension.

5.1.4 Sub-Question [4]: What is the impact of information technology on the financial dimension of organizational performance at Insurance Companies in Palestine?

Concluding from Table (4.12) which shows the results of MLR applied with the intention to answer this question, it is found that the financial dimension of the Organizational Performance (using BDC) at the Palestinian Insurance Companies is positively impacted only by three out of four of the IT dimensions. The descending order of these positive impacts' extent is; Skills & Experience, Data Accuracy, then Communication Network. As for the Hardware & Software dimension, it was found to have a negative impact on the financial dimension of OP.

5.1.5 Sub-Question [5]: What is the impact of information technology on the Customer dimension of organizational performance at Insurance Companies in Palestine?

It is deduced from Table (4.13), viewing the results of MLR applied to answer this question, that the Customer dimension of the OP at the Palestinian Insurance Companies is positively impacted only by three out of four of the IT dimensions. The descending order of these positive impacts' extent is; Skills & Experience, Data Accuracy, then Communication Network. As for the Hardware & Software dimension, it was found to have no impact on the customer dimension of OP.

5.1.6 Sub-Question [6]: What is the impact of information technology on the Internal Operations dimension of organizational performance at Insurance Companies in Palestine?

Studying Table (4.14) summarizing the results of MLR applied for the purpose of answering this question, it could be concluded that the Internal Operations dimension of the OP at the Palestinian Insurance Companies is positively impacted only by three out of four of the IT dimensions. The descending order of these positive impacts' extent is; Skills & Experience, Data Accuracy, then Communication Network. As for the Hardware & Software dimension, it was found to have no impact on the Internal Operations dimension of OP.

5.1.7 Sub-Question [7]: What is the impact of information technology on the Education & Growth dimension of organizational performance at Insurance Companies in Palestine?

Deriving from Table (4.15) which represents the results of MLR applied to serve the aim of answering this question, it is inducted that the Education & Growth dimension of the OP at the Palestinian Insurance Companies is positively impacted only by two out of four of the IT dimensions. These two dimensions are; Skills & Experience and Data Accuracy, with the Skills & Experience dimension having the greater extent of impact among the two. As for the Hardware & Software and the Communication Network dimensions, no impact on the Education and Growth dimension of OP was found

5.1.8 Sub-Question [8]: What is the impact of information technology on the Social Responsibility dimension of organizational performance at Insurance Companies in Palestine?

It is revealed after examining Table (4.16) which details the results of MLR applied to answer this question, that the Social Responsibility dimension of the OP at the Palestinian Insurance Companies is positively impacted only by three out of four of the IT dimensions. The descending order of these positive impacts' extent is; Skills & Experience, Data Accuracy, then Hardware & Software. As for the Communication Network dimension, it was found to have no impact on the Social Responsibility dimension of OP.

5.1.9 Sub-Question [9]: Are there significant statistical differences between the means of the participants' responses regarding Information Technology at the Palestinian Insurance Companies upon the demographic factors (Gender, Educational Degree, Age, Job Title, Years of Experience, and the Insurance Company)?

Reviewing the previous discussion of the results of the applied Independent Samples T-test and One-Way ANOVA in Tables (4.18 – 4.23), the most important findings can be concluded as those summarized in Table (5.3). This table marks the presence or absence of statistically significant differences between the means of the participants' responses regarding Information Technology at the Palestinian ICs upon the studied demographic factors. The symbol (✓) is used to mark the presence of statistically significant differences among the responses to a specific dimension upon a specific demographic factor. On the contrary, the symbol (×) is used to mark the absence of such differences.

Examining the results summarized in **Table (5.3)** in regards to the Total of the IT variable, it is found that the null hypothesis: "There are no statistical differences indication at the significance level ($\alpha \leq 0.05$) between the means of the participants' responses regarding Information Technology upon a specific demographic factor" is rejected in relation to three of the studied demographic factors including; Educational Degree, Age, and Insurance Company, that is due to the presence of statistically significant differences among the responses regarding IT upon those three factors. As for the other three demographic factors which are; Gender, Job Title, and Years of Experience, the null hypothesis failed to be rejected upon these factors.

| Table (5.3): Differences among participants' responses regarding IT at the Palestinian ICs upon demographic factors | | | | | | | |
|--|-----------------------|--------|--------------------|-----|-----------|---------------------|-------------------|
| Demographic Factor | | Gender | Educational Degree | Age | Job Title | Years of Experience | Insurance Company |
| IT Dimensions | Hardware & Software | × | ✓ | ✓ | ✓ | × | ✓ |
| | Database Accuracy | × | × | ✓ | ✓ | × | ✓ |
| | Skills & Experience | ✓ | ✓ | ✓ | × | × | ✓ |
| | Communication Network | × | × | × | × | ✓ | ✓ |
| | Total of IT | × | ✓ | ✓ | × | × | ✓ |

5.1.10 Sub-Question [10]: Are there significant statistical differences between the means of the participants' responses regarding Organizational Performance using the Balanced Scorecard at the Palestinian Insurance Companies upon the demographic factors (Gender, Educational Degree, Age, Job Title, Years of Experience, and the Insurance Company)?

Deriving from the previous discussion of the Independent Samples T-test and One-Way ANOVA in Tables (4.24 – 4.29), the most prominent observations can be summarized in Table (5.4). studying this table in regards to Total Organizational Performance, it is revealed that the null hypothesis: "There are no statistical differences indication at the significance level ($\alpha \leq 0.05$) between the means of the participants' responses regarding Organizational Performance using the Balanced Scorecard upon a specific demographic factor" is rejected upon four of the studied demographic factors, namely; Educational Degree, Age, Job Title, and Insurance Company, due to the presence of statistically significant differences among the responses regarding OP upon those factors. As for the remaining two demographic factors; Gender and Years of Experience, the null hypothesis failed to be rejected upon both factors.

| Table (5.4): Differences among participants' responses regarding OP using the BSC at the Palestinian ICs upon demographic factors | | | | | | | |
|--|--------------------------------------|--------|--------------------|-----|-----------|---------------------|-------------------|
| Demographic Factor | | Gender | Educational Degree | Age | Job Title | Years of Experience | Insurance Company |
| OP (BSC) Dimensions | Financial Dimension | × | ✓ | ✓ | × | × | ✓ |
| | Customer Dimension | × | × | ✓ | ✓ | × | ✓ |
| | Internal Operations Dimensions | × | × | ✓ | ✓ | × | ✓ |
| | Education & Growth Dimension | × | ✓ | ✓ | ✓ | × | ✓ |
| | Social Responsibility Dimension | × | ✓ | ✓ | ✓ | × | ✓ |
| | Total OP (Total score of BSC) | × | ✓ | ✓ | ✓ | × | ✓ |

5.2 Answer of the Main Question of the Study

This section highlights the part of the previous discussion representing the answer to the main question of the study which is:

"What is the impact of information technology on organizational performance at Insurance companies in Palestine using the balanced scorecard?"

Studying Table (4.17) that details the results of MLR applied to examine the impact IT dimensions have on the total OP using BSC, **it can be deduced that the following estimated prediction equation represents the answer to the study's main question:**

$$\hat{y} \text{ OP} = 0.298 \text{ DA} + 0.445 \text{ SE} + 0.102 \text{ CN}$$

Where:

$\hat{y} \text{ OP}$: Organizational performance using BSC

DA: Database Accuracy

SE: Skills & Experience

CN: Communication Network

This equation demonstrates that Organizational Performance at Insurance Companies in Palestine using the Balanced Scorecard is positively impacted only by three out of four of the IT dimensions. The descending order of these positive impacts' extent is; Skills & Experience, Data Accuracy,

then Communication Network. As for the Hardware & Software dimension, it was found to have no impact on OP.

5.3 Main Conclusions

Reflecting on the preceding sections of the study, the following represents its most prominent conclusions:

- ❖ From the participants' perspective, Information Technology is applied with a high application percentage of {80.6% } at the Insurance Companies in Palestine.
- ❖ From the participants' perspective, Organizational Performance using BSC at the Palestinian Insurance Companies has a high level of {74.4% }.
- ❖ The total of Information Technology and the total Organizational Performance using BSC are positively correlated with a moderate strength correlation that has the value of (+0.728).
- ❖ There are statistically significant differences among the participants' responses regarding Information Technology upon three demographic factors including; Educational Degree, Age, and Insurance Company.
- ❖ There are statistically significant differences among the participants' responses regarding Organizational Performance using BSC upon four demographic factors, that are; Educational Degree, Age, Job Title, and Insurance Company.

- ❖ Organizational Performance at Insurance Companies in Palestine using BSC is positively impacted by three of the IT dimensions. The descending order of these impacts' extent being; Skills & Experience, Data Accuracy, then Communication Network.

5.4 Recommendations

After navigating all previous sections of this study, the following represents its main recommendations for Palestinian Insurance Companies:

- ✓ Digital transformation of files, that is; converting the traditional paper-based files into digital formats. Some methods to achieve that may include; scanning and cloud storage.
- ✓ Adoption of electronic signature to complete digital transformation in a way that includes all files, procedures, and agreements.
- ✓ Development of databases, communication networks, all sub-systems, and their management methods through an approach including both technical improvements and process optimizations.
- ✓ Training human resources in order to enhance their skills, increase productivity, and ensure their ability to adapt to new technologies and methodologies. This can partially be achieved through; communication workshops, leadership training, and Team-Building activities.
- ✓ Developing an emergency management plan (EMP) to ensure the company's ability to respond effectively to any emergencies, minimize the damage, and protect its employees, customers, and assets.

- ✓ Building awareness about the importance of digital transformation among employees to guarantee their buy-in and active participation.
- ✓ Tracking complaints submitted by various parties and addressing issues effectively following a systematic approach.
- ✓ Using non-financial metrics in planning future performance in order to gain a complete understanding of the company's operations and any growth potential areas. Examples of such non-financial metrics are; customer satisfaction and loyalty, process improvement, and employee turnover rates.
- ✓ Improving the company's social responsibility practices by means of:
 - Supporting the local community through philanthropy and volunteer programs.
 - Providing educational grants and training programs to help develop the local community.
 - Engaging in social projects, specifically those that include; building infrastructure, supporting the healthcare system, and improving public services.
- ✓ Carrying out future more in-depth research in the fields of; Information Technology, Organizational Performance, and the Balanced Scorecard.

References

Arabic References

Ahmed Bin Saeed Al-Hadhrami. (2008). A Proposed Concept for Developing the Management of Sultan Qaboos Institutes for Islamic Sciences in the Sultanate of Oman in Light of the Requirements of Electronic Management. Arab Research and Studies Institute. Cairo.

Abu Sharakh, Jamal. (2012). The Feasibility of Evaluating the Performance of the Islamic University of Gaza Using the Balanced Scorecard, Master's Thesis, Faculty of Commerce, Islamic University, Gaza, Palestine.

Abu Ghobn, Nidal Farouk. (2016). The Feasibility of Using the Balanced Scorecard to Evaluate the Performance of Al-Aqsa University, Master's Thesis, Faculty of Commerce, Islamic University, Gaza, Palestine.

Bilal Khalf Al-Sakarna (2009), Work Ethics, Dar Al-Masirah for Publishing and Distribution, Second Edition, Oman.

Mohammed Saddam Jaber. (2002). The Coming Electronic Wave "E-Government". Administrative Journal. Issue 91. General Administration Institute. Muscat.

Saleh, Sabah Fawzi. (2014). Strategic Cost Management and Its Role in Decision-Making in Palestinian Service Sector Companies in Gaza Strip, Master's Thesis, Faculty of Commerce, Islamic University, Gaza, Palestine.

Mohammed Hassan Mufti. (2004). Electronic Management and Its Applications, Arab Journal, Issue 89, Riyadh.

Muthanna Al-Manasir, Mahmoud Maqableh, Alaa Al-Din Rawashdeh, and Ra'ed Masa'adeh. (2019). The Impact of Information Technology on Organizational Performance in Public Governmental Institutions in the Hashemite Kingdom of Jordan. *Jordanian Journal of Business Administration*. Volume 15, Issue 4.

Noue Hussain, Yaqouta Badoshna, and Ghareeb Laakhad. (2018). The Role of Information and Communication Technology in Improving the Quality of Public Services Provided in the United Arab Emirates. *Journal of Contemporary Economic Studies*. Issue 5.

Sari Al-Hassanat. (2012). Obstacles to the Application of Electronic Management in Palestinian Universities. Arab League University. Arab Organization for Education, Culture and Science. Arab Research and Studies Institute. Department of Educational Studies. Cairo.

Sulaiman Abu Salama. (2017). Electronic Management and Its Impact on the Public Sector in Palestine. Al-Azhar University, Gaza.

Rimash Boumediene. (2020). The Impact of Information and Communication Technology on the Job Performance of Employees at Arabi Bin Mahi University - Oum El Bouaghi.

Talib Ahmed. (2016). The Impact of Using Information Technology on the Performance of Students of Tishreen University Using Discriminant Analysis. *Journal of Tishreen University for Research and Scientific Studies*. Volume 38, Issue 4.

Kheiri Oso. (2016). Application of Electronic Management at Polytechnic University of Duhok. *Administrative Technical Institute*. Volume 20, Issue 1.

Samia Hassan and Wadah Hatem. (2016). Study of Obstacles to the Implementation of Electronic Management in Higher Education Institutions. *Dayaly Journal of Engineering Sciences*. Volume 9, Issue 3, pp. 12-24.

Qadum Lazhar and Qarawi Abdel Rahman. (2016). Electronic Management as a Mechanism for Developing the Performance of Local Groups in Algeria.

Abu Azoum Abu Jidiriyah and Younis Abu Khattab. (2019). Electronic Banking Tools and Their Impact on Banking Services Effort in Libya: A Case Study of Commercial Banks Operating in Sebha City. *Journal of Research and Applied Sciences*.

Sanaa Jaberat. (2021). The Impact of Human Resource Information Systems on Individual Performance of Employees in Algerian Economic Institutions. *Jordanian Journal of Business Administration*. Volume 17, Issue 1.

Rajm Khaled and Dadan Abdul Ghani. (2015). Evaluating the Impact of Human Resource Information System on Human Resource Management Functions in the Regional Directorate of Production of Sonatrach-Hassi Messaoud. *Economic and Administrative Research*. Issue 19.

Saleh Blaksa. (2012). Feasibility of Implementing the Balanced Scorecard as a Tool for Evaluating Strategy in Algerian Economic Enterprise. University of Ferhat Abbas - Setif. Faculty of Economic and Commercial Sciences and Management.

Abdel Fattah Bayoumi Hegazy. (2004). *Legal System for Protecting E-Government*, Dar Al-Fikr Al-Jami'i, Alexandria, pp. 99-103.

Hussein Sandi. (2002). *Electronic Management in the Arab World: Between Reality and Ambition*. Working Paper Presented to: E-Government Conference, Muscat.

Hijazi, Malak Zakaria. (2015). The Role of the Balanced Scorecard in Achieving the Principles of Sustainable University at the Islamic University of Gaza, Master's Thesis, Faculty of Education, Islamic University, Gaza, Palestine.

English References

Abbas, k & Qanbar, M. (2019). Obstacles to The Application of Electronic Management In Iraqi Universities. *Opcion*35, Vol. 35 pp.491-526.

Abbaspour, A. & Farhanghi, A. & Ghassemi, R. (2013). The Effect of Information Technology on Organizational Structure and Firm Performance: An Analysis of Consultant Engineers Firms (CEF) in Iran. *Procedia - Social and Behavioral Sciences*. 81. pp. 644-649.

Ahmed, A. & Naser, S & Talla, S. & Shobaki, M. (2018). The Impact of Information Technology Used on the Nature of Administrators Work at Al-Azhar University in Gaza. *International Journal of Academic Information Systems Research (IJAISR)*. Vol. 2 (6). pp.1-20.

Ahmad, M. & Al-Shbiel, S. (2019). The Effect of Accounting Information System on Organizational Performance in Jordanian Industrial SMEs: The Mediating Role of Knowledge Management. *International Journal of Business and Social Science*. Vol. 10 (3).

Alzoubi, H. & Alnazer, N. & Alzoubi, A. (2016). Exploring the Impact of the use of Business Information systems BIS on the organizational performance effectiveness in banks in Jordan. *International Journal of Business and Management Invention*. Vol. 5 (3). pp.48-55.

Azeez, R. & Yakkub, K. (2019). The Effect of Management Information System on Organizational Performance: A Survey Study at Missan Oil Company in Iraq. *Journal of Global Scientific Research*. Vol. 2, pp.135-165.

Croteau, A. & Bergeron, F. (2001). An Information Technology Trilogy: Business Strategy, Technological Deployment, and Organizational Performance. *Journal of Strategic Information Systems*. Vol.10 pp. 77-99. Montreal, Canada.

Dewett, T. & Jones, G. (2001). The Role of Information Technology in the Organization: a review, model, and assessment. *Journal of Management*, Vol.27 pp. 313–346.

Enakirehi, L. & Efarekeya, I. & Alabo, M. (2020). The Balanced Score Card (BSC) approach to measuring performance in Service Firms in Nigeria: A Theoretical Perspective. *International Journal of Management and Commerce Innovations*. Vol.7 (2). pp.1419-1421.

Georgiev, M. (2017). The Role of the Balanced Scorecard as a Tool of Strategic Management and Control. *Journal of Innovations and Sustainability*. Vol.3(2).

Hosain, M. (2019). The Impact of Accounting Information System on Organizational Performance: Evidence from Bangladeshi Small & Medium Enterprises. *Journal of Asian Business Strategy*. Vol. 9 (2). pp.11-147.

Jacks, T. & Palvia, P. & Schilhavy, R. & Wang, L. (2011). A framework for the impact of IT on organizational performance. *Business Process Management Journal*. Vol.17 (5). pp. 846-870.

John, N. (2018). *Importance of information technology in today world*. [online] Medium.

Available at: <https://medium.com/@niyajohn9495/importance-of-information-technology-in-today-world-dba3d6bd2eb2>.

Malina, M. (2013). The Evolution of a Balanced Scorecard. *The Journal of Applied Business Research*. Vol. 29 (3). University of Colorado Denver, USA.

- Mihalcova, B. & Gallo, P. & Timkova, V. & Tomcikova, L. (2018). Importance of Financial and Non-financial Indicators in Companies with the Balanced Scorecard Concept. *Researchgate*. Vol. 19 (165).
- Nofiyanti, R. & Sugiharto, T. & Sulistiowati, N. (2016). Business and Information System Strategic Alignment: Determinants and Impact on Rural Bank Organizational Performance. *Research Journal of Business and Management*. Vol. 3 (1).
- Reda, N. Ali, A. Jassim, H. (2019). The Role of Balanced Performance Card in Improving Strategic Performance: Applied Study. *Journal of University of Babylon, Pure and Applied Sciences*, Vol. 27 (1).
- Rosli, M. & Ariff, F. & Said, J. (2019). *Factors that influenced Balanced Scorecard Adoption in Malaysian Private Institutions of Higher Learning*. International Conference on Business Economics & Finance (ICBEF).
- Saad, R. & Daraghma, M. (2016). Using of the Balanced Scorecard for Performance Evaluation: Empirical Evidence from the Listed Corporations in the Palestine Exchange (PEX). *International Journal of Business and Management*. Vol. 11(3).
- Shaukat, M. & Zafurallah, M. (2009). Impact of Information Technology on Organizational Performance: An Analysis of Qualitative Performance Indicators of Pakistan's Banking and Manufacturing Companies. *European Journal of Economics, Finance and Administrative Sciences*. Issue 16.
- Wanjiru, T. (2012). The Challenges of Implementation of the Balanced Scorecard Strategy at Safaricom Kenya Limited. School of Business, University of Nairobi.

Zimmer, T. (2019). *What Are the Advantages of Information Technology in Business?* [online] *Chron.* Available at: <https://smallbusiness.chron.com/advantages-information-technology-business-774.html> [Accessed 18 Nov. 2021].

Kaigorodova, G N. (2018) et al. Directions of improving information system of insurance company *Journal of Physics: Conference Series*, vol. 1015, p. 042016, <https://doi.org/10.1088/1742-6596/1015/4/042016>.

Aduloju, Sunday Adekunle. (2014). Information technology managerial capabilities and customer service performance among insurance firms in Nigeria. *SAGE Open*, vol. 4, no. 4, p. 215824401456119, <https://doi.org/10.1177/2158244014561198>.

Taghbator, Peggy (2014). The Strategic Use of Information Technology in the Insurance Industry: A Case Study of State Insurance Company- Kumasi, Ghana. *European Journal of Business and Management* www.iiste.org. ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online) Vol.6, No.39.

Appendix (3.1): Tool of the study (Questionnaire)



Deanship of Higher Studies

Al-Quds University

Faculty of Business and Economics

Dear Employee,

Please grant few minutes to answer this questionnaire built by the researcher as a means of conducting a study titled:

"The Impact of Information Technology on the Organizational Performance at Insurance Companies in Palestine using the Balanced Scorecard"

in order to recognize the impact of information technology on organizational performance at Insurance companies using the balanced scorecard. This study is to be submitted as a partial fulfillment of the requirements for the degree of master's in business administration at Al-Quds University.

Please take into consideration that your honest opinions are of high significance to achieving the goals of the study and be assured that your individual opinions are not to be disclosed and are only going to be used for academic purposes.

Thank you for your cooperation!

Researcher: Asem Al-Natsheh

Supervisor: Dr. Ahmad Herzallah

Part II: Information Technology

Please determine the level to which you agree with the following statements regarding the different aspects of Information Technology implementation in the Palestinian insurance companies by marking the suitable level of agreement with a (X) sign.

| First Dimension: Hardware and software | | | | | | |
|--|--|-------------------|----------|------------|-------|----------------|
| No. | Statement | Strongly Disagree | Disagree | Don't Know | Agree | Strongly Agree |
| 1. | I use financial, administrative, and operational apps and programs to accomplish my daily tasks and job duties | | | | | |
| 2. | Information technology has helped facilitate dealing with other companies and institutions to complete transactions as quickly as possible | | | | | |
| 3. | Information technology helps increase the effectiveness of administrative supervision | | | | | |
| 4. | Information technology helps increase the connectivity between subsidiary branches and the company's head-management | | | | | |
| 5. | Files, messages, official documents, forms, employee procedures, and service requests are exchanged electronically | | | | | |
| 6. | Electronic signatures are used for all online transactions by the beneficiary through the internet | | | | | |
| 7. | There is a shortage of expertise and skills in dealing with internet services | | | | | |

| | | | | | | |
|----|--|--|--|--|--|--|
| 8. | There is weakness in the necessary infrastructure level needed for implementing electronic management | | | | | |
| 9. | There is a sufficient number of computer devices in the company | | | | | |

| Second Dimension: Database accuracy | | | | | | |
|--|--|--------------------------|-----------------|-------------------|--------------|-----------------------|
| No. | Statement | Strongly Disagree | Disagree | Don't Know | Agree | Strongly Agree |
| 1. | Data can be accessed in a timely manner and quickly | | | | | |
| 2. | Using information system leads to reducing errors and improving the accuracy of work | | | | | |
| 3. | Continuous data updating is possible | | | | | |
| 4. | Using information system offers solutions to files' storage problems | | | | | |
| 5. | There is a security system to protect information and data in electronic transactions | | | | | |
| 6. | The company has plans to address system and information-related emergencies or disasters | | | | | |

| Third Dimension: Skills and experience | | | | | | |
|---|--|--------------------------|-----------------|-------------------|--------------|-----------------------|
| No. | Statement | Strongly Disagree | Disagree | Don't Know | Agree | Strongly Agree |
| 1. | The company strives to continuously provide workshops and programs aiming to develop and enhance the skills and expertise of its employees | | | | | |
| 2. | The IT department trains employees to proficiently use software applications | | | | | |
| 3. | Information systems have helped increase the efficiency and productivity of employees and administrative work in general | | | | | |
| 4. | Information technology has helped the company in quickly making decisions | | | | | |

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| 5. | Information technology has facilitated innovation in administrative work | | | | | |
| 6. | Experts in the field of electronic software design and development are consulted | | | | | |
| 7. | Specialized technicians are relied upon to address issues and malfunctions faced during the implementation of electronic management | | | | | |
| 8. | There is a lack of awareness about the importance of using computers in electronic transactions | | | | | |
| 9. | There is a shortage of expertise and skills in dealing with internet services | | | | | |
| 10. | Some administrative managers fear change to electronic systems | | | | | |
| 11. | Lack of convention in the feasibility of implementing electronic management | | | | | |
| 12. | The company grants privileges to those with creative and innovative ideas | | | | | |

| Fourth Dimension: Communication Network | | | | | | |
|--|--|--------------------------|-----------------|-------------------|--------------|-----------------------|
| No. | Statement | Strongly Disagree | Disagree | Don't Know | Agree | Strongly Agree |
| 1. | The company uses communication networks to connect all administrative and service departments within the company | | | | | |
| 2. | The ease and convenience of exchanging information and data between departments in the company through the | | | | | |

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|----|--|--|--|--|--|--|
| | available communication channels | | | | | |
| 3. | The company conducts regular maintenance for all communication networks | | | | | |
| 4. | Internet service is available for all employees of the company | | | | | |
| 5. | Security and protection measures are available for communication networks and information exchange | | | | | |

Part III: Balanced scorecard

Please determine the level to which you agree with the following statements regarding the implementation of the different dimensions of the balanced scorecard in the Palestinian insurance companies by marking the suitable level of agreement with a (X) sign.

| First Dimension: Financial Dimension | | | | | | |
|--------------------------------------|--|-------------------|----------|------------|-------|----------------|
| No. | Statement | Strongly Disagree | Disagree | Don't Know | Agree | Strongly Agree |
| 1. | The company is keen on providing and funding all advanced programs | | | | | |
| 2. | The company is committed to efficiently implementing the financial plan | | | | | |
| 3. | The company strives to increase its market share of employees | | | | | |
| 4. | The company invests all human resources properly | | | | | |
| 5. | The company relies on cost reduction strategies in providing its services | | | | | |
| 6. | The company implements financial control mechanisms to make the correct decisions or it relies on specific financial | | | | | |

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|----|--|--|--|--|--|--|
| | indicators to measure financial performance | | | | | |
| 7. | The company offers its services at prices that are affordable for everyone | | | | | |
| 8. | The company suffers from low funding that is affecting its goal achievement | | | | | |

| Second Dimension: Customer Dimension | | | | | | |
|---|--|--------------------------|-----------------|-------------------|--------------|-----------------------|
| No. | Statement | Strongly Disagree | Disagree | Don't Know | Agree | Strongly Agree |
| 1. | The company strives to achieve satisfaction for beneficiaries in order to retain and attract them | | | | | |
| 2. | The company cares about the work environment and the services provided to customers | | | | | |
| 3. | The company provides a monitoring and evaluation system for its provided services | | | | | |
| 4. | The company strives to provide the best services using modern technology | | | | | |
| 5. | The company responds to complaints from its administrative team, employees, and customers by addressing the issues promptly | | | | | |
| 6. | The company values continuous communication with customers | | | | | |
| 7. | The company monitors the performance levels of its employees and administrative team and strives to enhance their experiences | | | | | |
| 8. | The company uses non-financial metrics to assess the achieved performance | | | | | |

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|-----------|--|--|--|--|--|--|
| | level and customer satisfaction | | | | | |
| 9. | The company provides non-routine activities | | | | | |

| Third Dimension: Internal operations Dimension | | | | | | |
|---|---|--------------------------|-----------------|-------------------|--------------|-----------------------|
| No. | Statement | Strongly Disagree | Disagree | Don't Know | Agree | Strongly Agree |
| 1. | The company continuously works on improving the style and quality of administrative services | | | | | |
| 2. | The quality level of the company's provided services is proportional to the cost | | | | | |
| 3. | The company is working on improving the process of investing resources and energies | | | | | |
| 4. | The company provides services at suitable times | | | | | |
| 5. | The company devotes efforts to achieving efficiency, streamlining procedures, and reducing costs | | | | | |
| 6. | The company regularly updates and improves its devices and systems | | | | | |
| 7. | The company strives to utilize the available resources properly and efficiently | | | | | |

| Fourth Dimension: Education and Growth Dimension | | | | | | |
|---|--|--------------------------|-----------------|-------------------|--------------|-----------------------|
| No. | Statement | Strongly Disagree | Disagree | Don't Know | Agree | Strongly Agree |
| 1. | The company aims to provide a suitable promotion system that supports professional development of its | | | | | |

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|-----------|--|--|--|--|--|--|
| | employees (system and incentives) | | | | | |
| 2. | The company aims to develop the scientific and professional competence of managers, employees, and trainees | | | | | |
| 3. | The company strives to innovate new methods of work in order to achieve excellence in providing service | | | | | |
| 4. | The company cares about providing a comfortable organizational environment for employees to support and encourage their creativity and innovation | | | | | |
| 5. | The company endeavors to provide training programs that enhances the capabilities of its employees | | | | | |
| 6. | The company supports employees in attending scientific and cultural conferences | | | | | |

| Fifth Dimension: Social Responsibility Dimension | | | | | | |
|---|--|--------------------------|-----------------|-------------------|--------------|-----------------------|
| No. | Statement | Strongly Disagree | Disagree | Don't Know | Agree | Strongly Agree |
| 1. | The company allocates a portion of its budget to finance the community activities | | | | | |
| 2. | The company seeks to build an active social role in serving the community | | | | | |
| 3. | The company aims to provide job opportunities as a participation in solving the issue of unemployment | | | | | |
| 4. | The company contributes in providing support for the special needs members of | | | | | |

| | | | | | | |
|-----------|---|--|--|--|--|--|
| | the community and for those in need financially | | | | | |
| 5. | The company provides helping centers within its local community (providing social, legal, and health services) | | | | | |

THANK YOU FOR YOUR TIME & COOPERATION

Appendix (3.2): Arbitrators committee

| Name | University |
|------------------------------------|---|
| Dr. Sharif Abu Karsh | Arab American University, Palestine |
| Dr. Abed El Qader Daraweesh | Al-Quds Open University, Palestine |
| Dr. Mohammad Abusharbeh | Arab American University, Palestine |
| Dr. Salwa Barghouthi | Al Quds University, Palestine |
| Dr. Nidal Darwish | Al Quds University, Palestine |
| Dr. Nasser Jaradat | Palestine Ahliya University, Palestine |
| Dr. Mahmoud Salahat | Palestine Ahliya University, Palestine |
| Dr. Raed Ereqat | Arab American University, Palestine |