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The Impact of Political Discourse by Prince Hussein bin Abdullah II on Identifying Training Needs for Employees at the University of Jordan in Light of Digital Age Requirements

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Abstract

The study aimed to explore the impact of political discourse by Prince Hussein bin Abdullah II on identifying training needs for employees at the University of Jordan in light of digital age requirements. To achieve the study objectives, the researcher utilized the descriptive-analytical methodology. The study sample consisted of 90 employees at the University of Jordan. The descriptive-analytical methodology was employed to achieve the study objectives. The results indicated that there is an impact of the political discourse by Prince Hussein bin Abdullah II on identifying training needs for students at the Hussein bin Talal University in light of digital age requirements. Significant statistical differences were found in the political discourse by Prince Hussein bin Abdullah II in identifying training needs for employees at the University of Jordan in light of digital age requirements. The researcher recommended focusing on the impact of the political discourse by Prince Hussein bin Abdullah II in identifying training needs for employees at the University of Jordan in light of digital age requirements by utilizing the expertise of the faculty members at the University of Jordan through conducting training courses and workshops for university students.

Keywords: Political Discourse, Prince Hussein, Training Needs, Digital Age.

Introduction

Since its independence in 1946, the Hashemite Kingdom of Jordan has witnessed significant qualitative leaps in both infrastructure and human development, leaving a tangible impact not only in specific fields but across all aspects and domains of life. This can be described as sustainable and comprehensive development. In response to governmental directives, the Ministry of Higher Education has taken the initiative to contribute to these efforts, playing a crucial and fundamental role in the state. One of the main pillars of this response was the development of intellectual capital of the human resources within Jordan, focusing on building the necessary knowledge, skills, and capabilities to keep up with future institutional and governmental trends. This was achieved through the implementation of effective training plans and programs, characterized by their methods, contents, and topics, as this era came to be known as the digital age.

The political discourse of Prince Hussein bin Abdullah II reflects the Jordanian policy emphasizing investment in Jordanian human capital through education, training, and qualification. It also clarifies the prince's vision for an advanced state, announcing the

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beginning of a crucial and pivotal Jordanian phase characterized by political openness in all its dimensions. The prince's directives in his political speeches constitute a national action program and a future plan for Jordan in the coming decades, which Prince Hussein seeks to build and establish in an era where there is no place for sluggishness, lethargy, complacency, or living in the past without the ability to adapt to the present. It addresses the reasons for strength, weakness, and initiative that give peoples a dignified place in this world, taking into account the necessities of modernity and modernism without losing their authenticity, the goodness of their heritage, and their national, ethnic, and Islamic identity. Prince Hussein stated, "I have recently returned from a training period spent with several companies operating in the information technology sector, the largest and most successful globally. I felt how the world around us is changing rapidly, a world driven by continuous development and ideas, where no sooner does one idea emerge than it is followed by ten others, more advanced." (From Prince Hussein bin Abdullah II's speech at Al-Hussein bin Talal University, July 2, 2018).

Furthermore, Prince Hussein adds, "Jordanians constitute 27 percent of tech entrepreneurs in the Middle East and North Africa region, despite the fact that the Jordanian population accounts for only 3 percent of the region's population. The Jordanian information and communication technology sector supports more than 600 technology startups. Our technical talents have proven their prominent impact, transcending the geographical boundaries of Jordan." (From Prince Hussein bin Abdullah II's speech on the occasion of launching the "Jordanian Source" initiative, November 22, 2021).

The conditions of the digital age with its changes and developments necessitate significant efforts in accomplishing tasks to keep up with the rapid and consecutive changes in all fields. Positive interaction with these changes, especially in the field of administrative information technology, is expected to lead to innovation and creativity in work, resulting in improved administrative performance and the ability to expedite tasks. The digital age requires radical changes in the quality of human resources suitable for it. This means revisiting current education and training systems to keep up with the requirements of the new transformation towards meeting the demands of the era. This includes preparing plans, programs, educational and training methods at all levels, in addition to raising awareness among individuals of society about the culture and nature of the requirements of this era (Ata'ani, 2021).

The requirements of the digital technology era refer to a set of newly available tools and technological means categorized under information and communication technology. Digital technologies are divided into hardware equipment such as computers and mobile phones, and flexible equipment such as web applications and social networks (Al-Azmat, 2020). Therefore, we conclude that the digital age simply means the dominance of digital technology and its various means on the means used in the field of communication, exchange, and transmission of information or means of analyzing it. This is achieved by substituting digital means characterized by speed and accuracy. This requires a change in the thinking pattern in restructuring institutions and preparing them for integration into the digital age, as well as preparing the cadres and workers in them to deal with the new situation that requires distinctive skills and quick adaptability to learning and acquiring knowledge skills in their fields. This is what Prince Hussein refers to when he says, "Our vibrant and dreaming young people are a trust in our hands, and it is our responsibility to provide opportunities that develop their potentials and unleash their creativity, so that they can contribute to building a promising future

in their countries and be a significant force in achieving peace and sustainable development, for the good of our region and our world." (From Prince Hussein bin Abdullah II's speech at the Arab Summit in Algeria, November 3, 2022).

The digital age is characterized by several features and characteristics, as mentioned by Tawfiq (2018) and Al-Sa'irfi (2020):

- Growth of societies and organizations relying on information to control information processing, achieve accuracy, and speed in completing their tasks.
- Emergence of information technology and advanced network systems, including the Internet, which has transcended barriers and made the world a small global village.
- Diverse categories of beneficiaries dealing with information and benefiting from it in their plans, programs, research, studies, and various activities according to their specialties, nature of work, and types.
- Expansion of electronic publishing and its transmission through electronic computers and communication networks, facilitating rapid access to information with minimal time, cost, and effort.
- The new technology in the digital age makes individuals' privacy in personal information vulnerable to risks despite the existence of legislation and regulatory bodies.
- Communication chaos and the threat to national sovereignty through control over information and communication technology, and controlling the level of communication.

Moreover, the International Telecommunication Union (2018) divides digital age skills into three levels:

Basic Skills

These are skills that enable working at the lowest level within the community and are essential for performing basic tasks. Basic skills include equipment (such as keyboard use and touchscreen operation), software (such as word processing and file management on computers, and privacy settings on mobile phones), basic online operations (such as using email, searching, or filling out online forms), and basic skills enrich life, enable interaction with others, and access government, commercial, and financial services.

Intermediate Skills

These are skills that enable the use of digital technologies in more beneficial and feasible ways and are ready for actual job opportunities. They include skills necessary for performing work-related tasks, such as desktop publishing skills, digital graphic design, and digital marketing.

Advanced Skills

These are the skills required by specialists in the field of information technology and communications, such as computer programming, network management. These fields include artificial intelligence, big data, encryption, and cybersecurity.

Contemporary global changes and transformations have imposed new future roles on workers at the University of Jordan that they have not previously practiced in many fields, through adopting modern managerial and behavioral ideas that have proven their seriousness, and by applying, considering, and monitoring the systems and laws issued by senior administrations to follow them to achieve work advancement and solidify future thinking to envision new horizons. Therefore, the researcher believes that there is an urgent and necessary need for

employees to be familiar with digital information technology and communication tools, and to possess the skills to deal with them in order to succeed in their duties and tasks with minimal time and effort. This is emphasized by Prince Hussein, who said: "Youth are the most present group on the Internet, and extremist groups spread their poisons through communication and social media to attract victims to enter their dark world, claiming to address them with religion and reward through appealingly filmed movies. The youth look at those categories with admiration, and as if their crimes are great achievements. We must confront this danger, which exploits the energies of youth to build a world devoid of humanity, and not focus all our efforts on answering "what to do", while the essence of the answer lies in "how to do it". Therefore, we must empower youth to engage in the battle of the future themselves by giving them the tools to address their generation through electronic communication platforms, to form intellectual networks and practical alliances that reach this generation and lead youth opinion and thinking based on coexistence, respect for diversity, and rejection of violence (from the speech of Prince Hussein bin Abdullah II, United Nations Security Council, May 23, 2015).

Training in the current era is considered one of the important subjects, given its direct correlation with the productivity efficiency of any organization. It has become a top priority in the agendas of many industrialized countries in general and developing countries in particular. It is one of the important means to establish a competent state apparatus, address deficiencies in administrative competencies, and for training to be effective and achieve its objectives, the training needs of trainees must be realistically and accurately identified. This is in order to design training programs suitable for their needs, whether they are employees within the organization or coming from outside. Training needs refer to how and what information and skills employees need to succeed and excel in their work (Khamis, 2018).

Training itself is an administrative and technical means to maximize human performance at work in a manner that optimally utilizes the available human resources for both society and the organization. Training, as a means to achieve specific goals, requires meticulous, clear, feasible planning. Training planning requires managerial, technical, and scientific expertise. Training is considered an important source for preparing human resources, developing their competencies and work performance, increasing production and productivity. It is an investment expenditure that yields tangible returns to meet the needs of economic and social growth. It is also an important means of technological advancement. The importance of training during service is increasing in the modern era, as it has become an urgent necessity to keep pace with the rapid developments in all fields and professions, in order to meet new responsibilities, tasks, and diverse burdens in order to be a productive member of society (Al-Kubaisi, 2017).

Training represents, in essence, a continuous and integrated process, consisting of various parts and elements, each playing a distinct role. However, the final efficiency and effectiveness of training depend on the degree of integration and interconnection between its parts and elements, and the extent to which the desired objectives are achieved (Yaghi, 2016). The Prince emphasizes that there is no investment like investment in education, and every child should be provided with the opportunity to learn, excel, succeed, and reach the highest ranks with faith, courage, and balance. Efforts must be united, including the people, government, private and public institutions, to provide a nurturing environment and meet the necessary needs to build our human capacities through a sound and effective educational system. From his words: "I look forward to harnessing our meetings to drive growth and progress and empower the youth who are the backbone of the future workforce" (From the speech of Prince Hussein bin

Abdullah II, at the outset of an extensive working lunch hosted by the Singaporean Prime Minister, January 12, 2024). Training needs express the gap between the required level of skills, knowledge, and attitudes to perform a specific job, and the level available to the individual performing this job. From this perspective, training needs are not limited to aspects of deficiencies or defects only, but also extend to other developmental aspects intended for development, modification, change, or refinement (Al-Khalifat, 2017).

The process of identifying training needs occupies an important and decisive place for the effectiveness of the training program, as it is the basis for every step of the training process, starting from setting training objectives, designing the training program content and activities, identifying training methods and means, distinguished by the extreme accuracy in collecting and analyzing data and information. Consequently, identifying training needs according to objective foundations and criteria based on scientific facts from the reality of work problems and workers is necessary to reach effective and sound decisions for training process planning and design, thereby achieving cost reduction and control, raising performance efficiency levels, achieving higher levels of worker productivity, capacity, and skill in work, improving quality, and achieving the organization's comprehensive development and growth goals (Rida, 2018).

Tawfiq (2017) highlights the significant importance of training needs for the success of any organization, as summarized in the following:

1. Being the real factor in enhancing the efficiency of workers in performing their assigned tasks.
2. It is the basis upon which any training activity is built.
3. It is the indicator that guides training towards the appropriate and correct directions.
4. It is the fundamental factor in directing the available training resources in the right direction.
5. Failure to identify training needs in advance leads to wasting effort, money, and time spent on training.
6. Knowing the training needs precedes any professional training activity and comes before the design and implementation of training programs.

The mechanism for determining training needs is based on two elements: the required performance level and the actual performance level. Through the gap between these two elements, most institutions determine their training needs. All of this requires the presence of specific and well-known criteria for determining the current performance level and the required performance level for human resources in the institution. It has been shown (Ridwan, 2022) that identifying training needs requires recognizing the current performance level of employees, setting realistic standards for optimal performance, and providing objective means of performance measurement. It also involves identifying the work and procedures required to determine performance levels.

Based on the aforementioned, the subject of this study is to identify the impact of the political discourse of Prince Hussein bin Abdullah II in determining the training needs of employees at the University of Jordan in light of the requirements of the digital age.

Problem Statement and Research Questions

Given the importance of the impact of Prince Hussein bin Abdullah II's political discourse in determining the training needs of employees at the University of Jordan, to achieve work

objectives and their continuous need for development and training, and in light of the requirements of the digital age and the tremendous evolution witnessed in this era, and in light of the world's developments, it is necessary to train employees at the University of Jordan to enable them to meet the requirements of their jobs in light of the conditions and requirements of this era. Specifically, the problem of the study lies in answering the following questions:

1. What is the impact of Prince Hussein bin Abdullah II's political discourse in determining the training needs of employees at the University of Jordan in light of the requirements of the digital age from their perspective?
2. Are there statistically significant differences (at the significance level $\alpha = 0.05$) between the means of the study sample's estimations of their training needs attributed to gender, educational qualification, and years of experience?

Objectives

This study aims to achieve the following:

1. Determine the impact of Prince Hussein bin Abdullah II's political discourse in identifying the training needs of employees at the University of Jordan in light of the requirements of the digital age to direct the attention of decision-makers at the University of Jordan to build training programs to meet those needs.
2. Reveal differences in the estimations of the study sample individuals' needs in light of variables (gender, educational qualification, years of experience) to provide recommendations accordingly.

Study Importance

The importance of this study lies in providing the Jordanian library, specifically, and the Arab library, in general, with scientific material related to the subject of political discourse and training needs. It sheds light on the concept of the digital age and its requirements, and the necessary skills for employees at the University of Jordan to keep pace with the requirements of this era. This study is among the first studies conducted in Jordan - to the extent of the researcher's knowledge - that link Prince Hussein's political discourse with training needs and the requirements of the digital age. It is expected that this study will benefit those responsible for building training programs by identifying the actual needs of employees at the University of Jordan in light of the requirements of the digital age. Furthermore, the study's results and recommendations can be utilized in organizing training courses aimed at enhancing the performance of employees at the University of Jordan in light of the requirements of the digital age and technological revolution.

Terminological and Procedural Definitions

The study included the following terminological and procedural definitions:

Training: It encompasses all study sessions and activities in which the trainee participates with the aim of increasing their professional knowledge, inclinations, and skills. This includes all studies that qualify them for higher certifications than their original qualifications that enabled them to enter the profession (Al-Qarni, 2017).

Training Needs: They are "the changes required to be introduced to the individual's job behavior, performance patterns, and level of competence through training. Identifying training

needs is of utmost importance, as accurate identification makes training activities purposeful and realistic, saving a lot of effort and expenses" (Al-Sakarna, 2017). Procedurally, it is defined as the set of technological, technical, administrative, artistic, knowledge, experience, and attitudinal skills needed by employees at the University of Jordan, which significantly contribute to improving their performance in light of the digital age's requirements. In this study, it is measured by the overall score obtained by the worker as a result of their response to the instrument prepared for this purpose.

Digital Age: It is a term used to describe "the period following the industrial age, where information becomes the axis that controls politics, economy, and social life. It is also the era where all forms of information become digital, and this information is transmitted through the international information network by electronic devices" (Shams, 2017). The researcher defines the digital age procedurally as the era in which employees at the University of Jordan practice a set of skills necessary for the requirements of the information technology era. This includes the development in various fields, along with the availability of books, electronic media, and plans, aiding employees at the University of Jordan in advancing administrative and educational processes.

Limitations

The study included the following limitations:

Objective Limitation: This study was limited to determining the impact of Prince Hussein bin Abdullah II's political discourse in identifying the training needs of employees at the University of Jordan in light of the requirements of the digital age.

Human Limitation: This study was applied to employees at the University of Jordan who hold managerial positions.

Spatial Limitation: The study was limited to the University of Jordan.

Temporal Limitation: This study was conducted during the period of November 2023 to December 2023.

Study Delimitations

The generalization of the results of this study is limited to the extent to which the study tool is reliable and stable, and to the extent of the study sample's representation of the community from which it was taken, as well as the accuracy of the sample individuals' response. Several studies have addressed the topics of political discourse, training needs, and the requirements of the digital age. However, the topic of the impact of Prince Hussein bin Abdullah II's political discourse in determining the training needs of employees at the University of Jordan in light of the requirements of the digital age is relatively novel.

Abbas (2018) conducted a study aimed at determining the impact of identifying training needs, training duration, and content on the performance of employees at the Syrian Private University. The researcher used a descriptive-analytical approach and relied on a questionnaire to obtain the necessary data. The researcher employed the comprehensive census method by distributing the questionnaire to all administrative employees in the university, totaling 85 employees. The study concluded that there is a positive impact and a strong inverse relationship between employee training and their performance. Additionally, it found a positive inverse

relationship between identifying training needs, training duration, training content, and employee performance in the university. The study recommended the necessity of developing a training plan that takes into account the practical and scientific steps followed in organizations, focusing on identifying training needs, selecting appropriate training times, and paying attention to training content to avoid wasting money and efforts without achieving the desired benefit.

The study by Al-Rashaydeh (2017) aimed to assess the professional development status of administrators working at Mutah University and attempt to identify their training needs. The study sample consisted of 280 male and female employees. To achieve the study objectives, the researchers developed a questionnaire on professional development and training needs for employees, and extracted the validity and reliability indicators specific to the tool. Among the study's key findings was that the study areas (administrative and technical) received a moderate score. The study also indicated no significant differences in the study areas attributed to the gender variable, while significant differences were found in variables such as educational qualification (favoring those with higher degrees), experience (favoring those with higher experience), and job title (favoring department managers). Additionally, the study revealed the need for training programs for administrators at Mutah University, with the questionnaire items varying between high and moderate. The study recommended building training programs to qualify and develop working administrators and enhance their job performance, with these programs being based on the fundamental principles of professional development.

Through reviewing previous studies, it was acknowledged the importance of training needs and their use of descriptive methodology, as well as the use of a questionnaire to collect data related to training needs. The current study distinguished itself from previous studies by being the only one to link political discourse with training needs and the requirements of the digital age at the University of Jordan.

Methodology and Procedures

The methodology and procedures included a description of the methodology and the procedures followed in conducting the study, as well as a description of its population and sample, in addition to the tool used to achieve the study's goals. It also covered the steps taken to develop and ensure the validity and reliability of the tool, and the statistical methods used in analyzing the data to reach the study's results.

Study Approach

To achieve the study's objectives, the researcher utilized the survey descriptive approach, which aligns with the current study's objectives.

Study Population and Sample

The study population consisted of all employees at the University of Jordan, totaling 116 directors. As for the study sample, it was a random sample consisting of 90 directors, as shown in Table (1).

Table 1: Distribution of Study Sample Individuals According to Their Variables.

Categories	Frequency	Percentage
Educational Level	Bachelor's	63
	Postgraduate Studies	27

Gender	Male	72
	Female	18
Experience	Less than 15 years	53
	15 years or more	37
Total		90

Study Tool

To measure the level of the political discourse impact of Prince Hussein bin Abdullah II in identifying the training needs of employees at the University of Jordan in light of the requirements of the digital age from the perspective of the managers themselves, the researcher developed a questionnaire for this purpose after referring to previous relevant studies.

Validity of the Study Tool

The validity of the study instrument was ensured through two methods: content validity and construct validity. The questionnaire was initially presented to a number of specialized referees, and accordingly, all referees' comments were taken into consideration. To extract the implications of construct validity for the questionnaire, it was applied to a sample outside the targeted study sample consisting of (30) managers, in order to extract the construct validity implications of the scale by calculating the correlation coefficients of each item with its domain and the correlation of each item with the questionnaire as a whole, as shown in Table (2).

Table 2: Correlation Coefficients (r) for Paragraphs, Total Score, and Fields.

No	(r) / Field	(r) / Tool	No	(r) / Field	(r) / Tool	No	(r) / Field	(r) / Tool
1	.82**	.78**	11	.77**	.69**	21	.89**	.87**
2	.66**	.58**	12	.71**	.62**	22	.87**	.84**
3	.78**	.67**	13	.80**	.75**	23	.83**	.81**
4	.85**	.77**	14	.61**	.61**	24	.84**	.78**
5	.91**	.84**	15	.72**	.72**	25	.80**	.82**
6	.76**	.85**	16	.76**	.75**	26	.87**	.83**
7	.77**	.77**	17	.66**	.68**	27	.73**	.68**
8	.79**	.79**	18	.90**	.86**	28	.74**	.66**
9	.75**	.61**	19	.74**	.75**	29	.78**	.63**
10	.84**	.82**	20	.83**	.74**	30	.79**	.72**

From the results in Table (2), it is noted that the correlation coefficients of the items with the instrument as a whole ranged between (0.58-0.87), and with the domain between (0.61-0.91). It is worth mentioning that all correlation coefficients were of acceptable degrees and statistically significant, therefore none of these items were deleted. Additionally, correlation coefficients were extracted for each domain with the total score, and correlation coefficients between the domains themselves as shown in Table (3).

Table (3) shows that all correlation coefficients are acceptable and statistically significant, indicating an appropriate level of construct validity.

Table 3: Correlation Coefficients among Fields and Total Score.

Field	Computer & Internet Usage	Remote Management	Information Security	Overall Training Needs
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Computer & Internet Usage	1			
Remote Management	.748**	1		
Information Security	.612**	.756**	1	
Overall Training Needs	.842**	.854**	.834**	1

Reliability of the Study Instrument: To ensure the reliability of the study instrument, internal consistency was checked using Cronbach's alpha coefficient based on the data from the initial application to the survey sample. For the purpose of assessing the reliability of the questionnaire, it was reapplied to the survey sample using the test-retest method, with a two-week interval between the two applications. Pearson correlation coefficients were then calculated between their estimates on both occasions, which demonstrated their suitability for achieving the objectives of the current study, as shown in Table (4).

Table 4: Cronbach's Alpha for Internal Consistency and Test-Retest Reliability for Domains and Total Score.

Field	Test-Retest Reliability	Internal Consistency
Computer and Internet Usage	0.93	0.91
Remote Management	0.92	0.92
Information Security	0.90	0.89

From the results in Table (4), it is evident that all values of test-retest reliability and internal consistency are acceptable, indicating that the questionnaire is suitable for application. Scoring Correction of the Study Instrument: A five-point Likert scale was adopted to correct the study instruments, assigning one point to each item from the five points (Very High, High, Moderate, Low, Very Low), numerically representing (5, 4, 3, 2, 1) respectively. The following scale was adopted for the purpose of result analysis:

- From 1.00 to 2.33: Low Level
- From 2.34 to 3.67: Moderate Level
- From 3.68 to 5.00: High Level

Statistical Analysis

Arithmetic means and standard deviations were calculated for the estimates of the study sample regarding the impact of the political discourse of Prince Hussein bin Abdullah II in identifying their training needs in light of the requirements of the digital age. The analysis of variance (ANOVA) was used to calculate the differences in the estimates of the sample individuals on each intermediate variable separately. Additionally, Cronbach's alpha equation was used to find the coefficient of internal consistency and Pearson correlation coefficient was used to find the coefficient of internal consistency validity for the study instrument.

Results Analysis and Discussion

The aim of the study was to determine the impact of the political discourse of Prince Hussein bin Abdullah II in identifying the training needs of employees at the University of Jordan in light of the requirements of the digital age, by answering the following questions:

Question 1: What is the impact of the political discourse of Prince Hussein bin Abdullah II in identifying the training needs of employees at the University of Jordan in light of the requirements of the digital age from their perspective?

To answer this question, arithmetic means and standard deviations were extracted for the impact of the political discourse of Prince Hussein bin Abdullah II in identifying the training needs of employees at the University of Jordan in light of the requirements of the digital age from their perspective. Table (5) illustrates this.

Table 5: Descending Order of Training Needs Estimates: Mean and Standard Deviation.

Rank	Number	Field	Mean	S. D.	Level
1	1	Computer and Internet Usage	3.23	0.930	Average
2	2	Remote Management	3.16	0.91	Average
3	3	Information Security	3.15	0.92	Average
Total Scale			3.18	0.850	Average

Table (5) shows that the overall arithmetic mean of the estimates of the study sample for their training needs in light of the requirements of the digital age was (3.18), with a standard deviation of (0.85), indicating a moderate level of need. The field of computer and internet usage ranked first with the highest arithmetic mean of (3.23) and a standard deviation of (0.93), indicating a moderate level of need. This was followed by the field of remote management in second place, with an arithmetic mean of (3.16) and a standard deviation of (0.93), also indicating a moderate level of need. The field of information security ranked last, with an arithmetic mean of (3.15) and a standard deviation of (0.92), also indicating a moderate level of need. Arithmetic means and standard deviations were calculated for the estimates of the study sample on items for each domain of study, as follows:

First Domain: Computer and Internet Usage Arithmetic means and standard deviations for the estimates of the study sample regarding their training needs on items related to computer and internet usage were calculated. Table (6) illustrates this.

Table 6: Descending Ranked A.M. and S.D. for Computer and Internet Usage.

RankNo.	Statements	A.M.	S. D.	Level
1 2	I use the internet for communication within and outside the university.	3.34	1.25	Average
2 1	I use computers and their accessories in administrative operations.	3.30	1.10	Average
3 8	I exchange knowledge with others using the internet.	3.29	1.19	Average
4 6	I master research methods in internet databases.	3.28	1.14	Average
5 7	I handle electronic data and information.	3.25	1.18	Average
6 9	I use online chat programs to communicate with others.	3.22	1.21	Average
7 3	I use email in administrative work.	3.18	1.14	Average
7 4	I download programs onto my computer.	3.18	1.21	Average
9 5	I use computer applications in management.	3.14	1.17	Average
10 10	I use the university's website.	3.13	1.20	Average
Total for the Field		3.23	0.930	Average

Table (6) illustrates that the overall arithmetic mean of the estimates of the study sample for their training needs in light of the requirements of the digital age in this domain was (3.23),

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with a standard deviation of (0.93), indicating a moderate level of need. Paragraph (2), which states "Use the Internet for communication within and outside the university," ranked first with an arithmetic mean of (3.34), while paragraph number (10), which states "Use the university's website," ranked last with an arithmetic mean of (3.13), both indicating a moderate level of need.

Second Domain: Remote Management Arithmetic means and standard deviations for the estimates of the study sample regarding their training needs on items related to remote management were calculated. Table (7) illustrates this.

Table 7: A.M. and S D for Remote Management, Descending Order.

Rank	No.	Statements	A.M	S.D	Level
1	15	I ensure that workflows are conducted correctly.	3.31	1.17	Average
2	13	I provide smooth flow of information among colleagues.	3.28	1.07	Average
3	12	I monitor colleagues' work remotely.	3.26	1.16	Average
4	16	I am able to access training platforms.	3.19	1.19	Average
5	11	I use electronic platforms for remote training.	3.15	1.12	Average
6	19	I issue certificates and documents electronically.	3.13	1.19	Average
9	14	I exchange feedback with colleagues on performance through the university's website.	3.12	1.06	Average
10	18	I complete tasks required of me remotely.	3.02	1.15	Average
11	17	I attend meetings remotely.	2.91	1.06	Average
Total for the Field			3.16	0.910	Average

Table (7) indicates that the overall arithmetic mean of the estimates of the study sample for their training needs in light of the requirements of the digital age in this domain was (3.16), with a standard deviation of (0.91), indicating a moderate level of need. Paragraph (15), which states "Ensure the proper flow of work," ranked first with an arithmetic mean of (3.31) and a standard deviation of (1.17), indicating a moderate level of need. Paragraph (13), which states "Facilitate information flow among colleagues," ranked second with an arithmetic mean of (3.28) and a standard deviation of (1.07), also indicating a moderate level of need. Paragraph (17), which states "Attend meetings remotely," ranked last with an arithmetic mean of (2.91), and a standard deviation of (0.92), indicating a moderate level of need.

Third Domain: Information Security Arithmetic means and standard deviations for the estimates of the study sample regarding their training needs on items related to information security were calculated. Table (8) illustrates this.

Table 8: Descending Ranked A.M and S.D in Information Security.

Rank	No.	Statements	A.M.	S.D.	Level
1	20	I work on securing information when conducting electronic transactions using password management.	3.36	1.14	Average
2	23	I work on preserving information when updating the administrative system.	3.33	1.20	Average
3	21	I save files electronically.	3.26	1.19	Average
4	25	I master information backup.	3.19	1.12	Average
5	24	I convert paper records into secure electronic files.	3.18	1.07	Average
6	26	I deal with antivirus programs.	3.10	1.18	Average
7	27	I encrypt information to protect it from hacking.	2.98	1.19	Average
8	22	I transfer electronic files with high secrecy.	2.98	1.12	Average
9	28	I can hide and retrieve information.	2.96	1.09	Average
Total for the Field			3.15	0.920	Average

Table (8) reveals that the overall arithmetic mean of the estimates of the study sample for their training needs in light of the requirements of the digital age in this domain was (3.15), with a standard deviation of (0.92), indicating a moderate level of need. Paragraph (20), which states "Secure information protection when conducting electronic administrative transactions using password management," ranked first with an arithmetic mean of (3.36) and a standard deviation of (1.14), also indicating a moderate level of need. On the other hand, paragraph (28), which states "I can hide and retrieve information," ranked last with an arithmetic mean of (2.96) and a standard deviation of (1.09), also indicating a moderate level of need.

According to the previous, the result shows that the training needs of employees at the University of Jordan are moderate. Regarding the domains, the domain of computer and internet usage ranked first with the highest arithmetic mean, followed by remote management, and information security ranked last. This result indicates that employees at the University of Jordan lack some skills and are in need of training to improve their job performance. The researcher attributes this to the underutilization of technological electronic systems in the university, leading to deficiencies in the performance of employees. With the emerging situation necessitating these skills, the actual training needs of employees have become apparent. Regarding the domain of computer and internet usage ranking first, the researcher attributes this to the lack of attention to holding necessary training courses. Even if such courses are conducted, they do not address the actual training needs of employees. The findings of the current study align with the results of Abbas's study (2018), which showed the existence of training needs among employees in all domains and at a level above average.

Question 2: Are there statistically significant differences (at a significance level of $\alpha = 0.05$) between the means of the estimates of the sample individuals' training needs attributed to gender and educational qualification variables?

To answer this question, arithmetic means and standard deviations were extracted for the means of the study sample's estimates of their training needs based on gender and educational qualification. Table (9) illustrates this.

Table 9: A.M & S.D. of Training Needs by Gender & Education.

Variables	Category	Variable	Computer and Internet Usage	Remote Management	Information Security	Overall Training Needs
Gender	Male	AM	3.03	2.92	2.90	2.95
		SD	0.970	0.934	0.935	0.900
	Female	AM	3.42	3.38	3.37	3.39
		SD	0.863	0.828	0.840	0.755
Educational Qualification	Bachelor's and below	AM	3.20	3.15	3.17	3.17
		SD	0.927	0.897	0.935	0.847
	Postgraduate Studies	AM	3.27	3.18	3.12	3.19
		SD	0.944	0.926	0.896	0.865

Table (9) demonstrates apparent variability in the arithmetic means and standard deviations for the means of the study sample's estimates of their training needs due to differences in the categories of the gender and educational qualification variables. To elucidate the statistical significance of the differences between the arithmetic means, a multivariate analysis of variance (MANOVA) was conducted on the domains, as shown in Table (10).

Table 10: MANOVA for the Effect of Gender and Educational Qualification on Study Domains.

Source of Variation	Domains	SS	df	MS	F Value	p
Gender	Computer and Internet Usage	7.043	1	7.043	8.523	.004
Hotelling's t^2	Remote Management	10.063	1	10.063	12.999	.000
= 003	Information Security	10.110	1	10.110	12.821	.000
Educational Qualification	Computer and Internet Usage	0.497	1	0.497	0.601	.439
Hotelling's t^2	Remote Management	0.247	1	0.247	0.319	.573
= 425	Information Security	0.010	1	0.010	0.012	.912
Error	Computer and Internet Usage	145.433	87	0.826		
	Remote Management	136.255	87	0.774		
	Information Security	138.789	87	0.789		
Total	Computer and Internet Usage	155.757	89			
	Remote Management	147.577	89			
	Information Security	149.905	89			

Sum of Squares (SS) Degrees of Freedom (df) Mean Square (MS) F Value (F) Statistical Significance (p or p-value)

Table 10 shows the following:

- There are statistically significant differences ($\alpha = 0.05$) attributed to the effect of gender in all domains, with the differences favoring females.
- There are no statistically significant differences ($\alpha = 0.05$) attributed to the effect of educational qualification in all domains.

Additionally, a multivariate analysis of variance (MANOVA) was conducted for the entire tool, as illustrated in Table (11).

Table 11: MANOVA for the Effect of Gender and Educational Qualification on the Means of the Study Sample's Estimates of their Training Needs.

Source of Variation	SS	df	MS	F Value	p
Gender	9.010	1	9.010	13.244	.0000
Educational Qualification	.1500	1	.1500	.2210	.6390
Error	119.732	87	.6800		
Total	130.370	89			

Sum of Squares (SS) Degrees of Freedom (df) Mean Square (MS) F Value (F) Statistical Significance (p or p-value)

Table 11, shows the following:

- There are statistically significant differences ($\alpha = 0.05$) attributed to the effect of gender, with an F-value of 13.244 and a statistical significance of 0.000. These differences favor females.
- There are no statistically significant differences ($\alpha = 0.05$) attributed to the effect of educational qualification, with an F-value of 0.221 and a statistical significance of 0.639.

Based on the above results, there are differences in the training needs of employees attributed to gender, favoring females. Female school principals in the Al-Tayyiba and Al-Wasatiyah districts showed the highest need for training. However, no differences attributed to educational qualification were observed. The lack of significant differences attributed to educational qualification suggests a consensus among university employees, regardless of their qualifications, regarding their need for training in all the skills included in the study, especially given the current global situation. The homogeneity among the sample members may reduce the gap in differences between qualifications, indicating their awareness of their training needs

and their understanding of their shortcomings, regardless of their qualifications.

Recommendations

In light of the results yielded by the study, the researcher provided a set of recommendations as follows:

1. Continuing to train employees based on precise identification of training needs according to scientific methods, while considering the immense cognitive explosion in the digital age.
2. Increasing focus on conducting necessary training programs for employees, especially in meeting management and remote work completion.
3. Encouraging researchers and stakeholders in the field of training to conduct similar research in other ministries and universities.

References

- Al-Adhamat, M. (2020). Building a Proposed Training Program for Human Resource Management to Identify Training Needs in Computer Applications for Teachers in the Digital Age [Unpublished doctoral dissertation]. Yarmouk University. Irbid, UAE.
- Aliwa, A.-S. (2016). Identifying Training Needs. Itrack Publishing and Distribution. Cairo.
- Al-Khalifat, E. A. (2017). Identifying Training Needs to Ensure the Effectiveness of Training Programs. Safaa Publishing and Distribution House. Oman.
- Al-Kubaisi, A. K. (2010). Administrative and Security Training: A Contemporary Vision for the Twenty-First Century (1st ed.). Naif Arab University for Security Sciences. Riyadh.
- Al-Qarni, A. bin S. (2017). Employee Training and Development, Part One. Research and Studies Center. Riyadh.
- Al-Saerfi, M. (2020). Administrative Training, Identifying Training Needs, and Designing Training Programs. Dar Al-Manahij for Publishing and Distribution. Cairo.
- Al-Sakarna, B. K. (2017). Analysis and Identification of Training Needs. Al-Maseera Publishing and Distribution House. Oman.
- Al-Ta'ani, H. A. (2021). Administrative Training According to a Developmental Vision. Wael Publishing and Distribution House. Oman.
- Al-Talib, G. (2020). We and the Prospects of the Digital Future. Retrieved on February 21, 2023, from <https://alghad.com>
- Gran, S. (2017). Education and Skills in the Digital Age. RAND Corporation. United Kingdom.
- International Telecommunication Union. (2018). Digital Skills Toolkit. Retrieved on February 20, 2023, from <https://www.itu.int/en/ITU-D/Digital>
- Khamees, S. (2018). 21st Century Skills: A Framework for Education for the Future. Childhood and Development Journal, (31), 149-155.
- Radwan, M. A. F. (2022). Training Theory: Transforming Training Ideas and Principles into Tangible Reality. Arab Training and Publishing Group. Cairo.
- Reda, H. H. (2018). Administrative Training and Qualification. Dar Al-Raya for Publishing and Distribution. Oman.
- Abusaimeh, H. (2020). Distributed denial of service attacks in cloud computing. International Journal of Advanced Computer Science and Applications, 11(6).
- Abusaimeh, H., Shkoukani, M., & Alshrouf, F. (2014). Balancing the network clusters for the

- lifetime enhancement in dense wireless sensor networks. *Arabian Journal for Science and Engineering*, 39, 3771-3779.
- Abusaimeh, H., & Alshareef, Y. (2021). Detecting the phishing website with the highest accuracy. *TEM Journal*, 10(2), 947.
- Abusaimeh, H. (2020). Virtual machine escape in cloud computing services. *International Journal of Advanced Computer Science and Applications*, 11(7).
- Mahafzah, A. H., & Abusaimeh, H. (2018). Optimizing power-based indoor tracking system for wireless sensor networks using ZigBee. *International Journal of Advanced Computer Science and Applications*, 9(12).
- Abusaimeh, H. (2022). Computation Offloading for Mobile Cloud Computing Frameworks and Techniques. *TEM Journal*, 11(3), 1042-1046.
- Abusaimeh, H. (2020). Enhance the security and prevent vampire attack on wireless sensor networks using energy and broadcasts threshold values. *International Journal of Advanced Computer Science and Applications*, 11(3).
- Abusaimeh, H., Sharabati, A., & Asha, S. (2023). Using cloud computing services to enhance competitive advantage of commercial organizations. *International Journal of Data and Network Science*, 7(3), 1349-1360.
- Abusaimeh, h., & isaid, o. (2017). Hybrid data deduplication technique in cloud computing for cloud storage. *Journal of Theoretical & Applied Information Technology*, 95(24).
- Ahmad, A. Y. B., Kumari, D. K., Shukla, A., Deepak, A., Chandnani, M., Pundir, S., & Shrivastava, A. (2024). Framework for Cloud Based Document Management System with Institutional Schema of Database. *International Journal of Intelligent Systems and Applications in Engineering*, 12(3s), 672-678.
- Singh, R., Gupta, N. R., & Ahmad, A. Y. (2024). An Empirical Study on Challenges of Working from Home During COVID-19 on Work-Life Domains in the Education Sector in Bengaluru. In S. Singh, S. Rajest, S. Hadoussa, A. Obaid, & R. Regin (Eds.), *Data-Driven Intelligent Business Sustainability* (pp. 111-121). IGI Global. <https://doi.org/10.4018/979-8-3693-0049-7.ch008>
- Ahmad, A. Y. B., Kumari, D. K., Shukla, A., Deepak, A., Chandnani, M., Pundir, S., & Shrivastava, A. (2024). Framework for Cloud Based Document Management System with Institutional Schema of Database. *International Journal of Intelligent Systems and Applications in Engineering*, 12(3s), 672-678.
- Ahmad, A. Y. B., Tiwari, A., Nayeem, M. A., Biswal, B. K., Satapathy, D. P., Kulshreshtha, K., & Bordoloi, D. (2024). Artificial Intelligence Perspective Framework of the Smart Finance and Accounting Management Model. *International Journal of Intelligent Systems and Applications in Engineering*, 12(4s), 586-594.
- Ahmad, A., Abusaimeh, H., Rababah, A., Alqsass, M., Al-Olima, N., & Hamdan, M. (2024). Assessment of effects in advances of accounting technologies on quality financial reports in Jordanian public sector. *Uncertain Supply Chain Management*, 12(1), 133-142.
- Ahmad, A. (2024). Ethical implications of artificial intelligence in accounting: A framework for responsible ai adoption in multinational corporations in Jordan. *International Journal of Data and Network Science*, 8(1), 401-414.
- Ahmad Y. A. Bani Ahmad, "Firm Determinants that Influences Implementation of Accounting Technologies in Business Organizations," *WSEAS Transactions on Business and Economics*, vol. 21, pp. 1-11, 2024
- Ahmad, A. Y. B., William, P., Uike, D., Murgai, A., Bajaj, K. K., Deepak, A., & Shrivastava, A. (2024). Framework for Sustainable Energy Management using Smart Grid Panels

- Integrated with Machine Learning and IOT based Approach. *International Journal of Intelligent Systems and Applications in Engineering*, 12(2s), 581-590.
- Ahmad, A. B., Atta, A. A. B., Asma'a Al-Amarneh, M. S., & Dahbour, S. A. (2023). Fund Family Selectivity Skills and Market Timing Ability: Comparison Study
- Ahmad, A. Y. Bani ahmad , (2019). Empirical Analysis on Accounting Information System Usage in Banking Sector in Jordan. *Academy of Accounting and Financial Studies Journal*, 23(5), 1-9.
- Ahmad, A. Y. B., Gongada, T. N., Shrivastava, G., Gabbi, R. S., Islam, S., & Nagaraju, K. (2023). E-Commerce Trend Analysis and Management for Industry 5.0 using User Data Analysis. *International Journal of Intelligent Systems and Applications in Engineering*, 11(11s), 135-150.
- Alhawamdeh, H., Al-Saad, S. A., Almasarweh, M. S., Al-Hamad, A. A.-S. A., Bani Ahmad, A. Y. A. B., & Ayasrah, F. T. M. (2023). The Role of Energy Management Practices in Sustainable Tourism Development: A Case Study of Jerash, Jordan. *International Journal of Energy Economics and Policy*, 13(6), 321–333. <https://doi.org/10.32479/ijeep.14724>
- Allahham, M., & Ahmad, A. (2024). AI-induced anxiety in the assessment of factors influencing the adoption of mobile payment services in supply chain firms: A mental accounting perspective. *International Journal of Data and Network Science*, 8(1), 505-514.
- Y. A. B. Ahmad, S. S. Kumari, M. S, S. K. Guha, A. Gehlot and B. Pant, "Blockchain Implementation in Financial Sector and Cyber Security System," 2023 International Conference on Artificial Intelligence and Smart Communication (AISC), Greater Noida, India, 2023, pp. 586-590, <https://doi.org/10.1109/AISC56616.2023.10085045>
- Ahmad, A. Y. B., Atta, A. A. B., Shehadeh, M. A. H. A., Baniata, H. M. A., & Hani, L. Y. B. (2023). Fund family performance: Evidence from emerging countries. *WSEAS Trans. Bus. Econ*, 20, 951-964.
- Bani Atta, A. A., Ali Mustafa, J., Al-Qudah, S. S., Massad, E., & Ahmad, A. B. (2023). The effect of macroprudential regulation on banks' profitability during financial crises [Specialissue]. *Corporate Governance and Organizational Behavior Review*, 7(2), 245-258.
- Cheng, Congbin, Sayed Fayaz Ahmad, Muhammad Irshad, Ghadeer Alsanie, Yasser Khan, Ahmad Y. A. Bani Ahmad (Ayassrah), and Abdu Rahman Aleemi. 2023. "Impact of Green Process Innovation and Productivity on Sustainability: The Moderating Role of Environmental Awareness" *Sustainability* 15, no. 17: 12945. <https://doi.org/10.3390/su151712945>
- Daoud, M. K., Al-Qeed, M., Ahmad, A. Y. B., & Al-Gasawneh, J. A. (2023). Mobile Marketing: Exploring the Efficacy of User-Centric Strategies for Enhanced Consumer Engagement and Conversion Rates. *International Journal of Membrane Science and Technology*, 10(2), 1252-1262.
- Daoud, M., Taha, S., Al-Qeed, M., Alsafadi, Y., Ahmad, A., & Allahham, M. (2024). EcoConnect: Guiding environmental awareness via digital marketing approaches. *International Journal of Data and Network Science*, 8(1), 235-242.
- Fraihat, B. A. M., Ahmad, A. Y. B., Alaa, A. A., Alhawamdeh, A. M., Soumadi, M. M., Aln'emi, E. A. S., & Alkhawaldeh, B. Y. S. (2023). Evaluating Technology Improvement in Sustainable Development Goals by Analysing Financial Development and Energy Consumption in Jordan. *International Journal of Energy Economics and Policy*, 13(4), 348
- Lin, C., Ahmad, S. F., Ayassrah, A. Y. B. A., Irshad, M., Telba, A. A., Awwad, E. M., & Majid, M. I. (2023). Green production and green technology for sustainability: The mediating role

- of waste reduction and energy use. Heliyon, e22496.
- K. Daoud, D. Alqudah, M. Al-Qeed, B. A. Al Qaied, and A. Y. A. B. Ahmad, "The Relationship Between Mobile Marketing and Customer Perceptions in Jordanian Commercial Banks: The Electronic Quality as A Mediator Variable", *ijmst*, vol. 10, no. 2, pp. 1360-1371, Jun. 2023
- Mustafa, J. A., ATTA, A. A. B., ahmad, a. Y. B., shehadeh, m., & Agustina, R. (2023). Spillover Effect in Islamic and Conventional Fund Family: Evidence from Emerging Countries. *WSEAS Transactions on Business and Economics*, 20, 1042-1058.
- Mohsin, H. J., Hani, L. Y. B., Atta, A. A. B., Al-Alawneh, N. A. K., Ahmad, A. B., & Samara, h. H. (2023). The impact of digital financial technologies on the development of entrepreneurship: evidence from commercial banks in the emerging markets.
- Ni, L., Ahmad, S. F., Alshammari, T. O., Liang, H., Alsanie, G., Irshad, M., ... & Ayassrah, A. Y. B. A. (2023). The role of environmental regulation and green human capital towards sustainable development: The mediating role of green innovation and industry upgradation. *Journal of Cleaner Production*, 138497.
- Peng, Yixuan, Sayed Fayaz Ahmad, Ahmad Y. A. Bani Ahmad, Mustafa S. Al Shaikh, Mohammad Khalaf Daoud, and Fuad Mohammed Hussein Alhamdi. 2023. "Riding the Waves of Artificial Intelligence in Advancing Accounting and Its Implications for Sustainable Development Goals" *Sustainability* 15, no. 19: 14165. <https://doi.org/10.3390/su151914165>
- Peiran Liang, Yulu Guo, Sohaib Tahir Chauhdary, Manoj Kumar Agrawal, Sayed Fayaz Ahmad, Ahmad Yahya Ahmad Bani Ahmad, Ahmad A. Ifseisi, Tiancheng Ji, 2024, "Sustainable development and multi-aspect analysis of a novel polygeneration system using biogas upgrading and LNG regasification processes, producing power, heating, fresh water and liquid CO₂," *Process Safety and Environmental Protection*,
- Peiran Liang, Yulu Guo, Tirumala Uday Kumar Nutakki, Manoj Kumar Agrawal, Taseer Muhammad, Sayed Fayaz Ahmad, Ahmad Yahya Ahmad Bani Ahmad, Muxing Qin, 2024. "Comprehensive assessment and sustainability improvement of a natural gas power plant utilizing an environmentally friendly combined cooling heating and power-desalination arrangement", *Journal of Cleaner Production*, Volume 436, 140387,
- A. Y. A. Bani Ahmad, Y. M. A. Tarshany, F. T. M. Ayasrah, F. S. Mohamad, S. I. A. Saany and B. Pandey, "The Role of Cybersecurity in E-Commerce to Achieve the Maqasid of Money," 2023 International Conference on Computer Science and Emerging Technologies (CSET), Bangalore, India, 2023, pp. 1-8, doi: 10.1109/CSET58993.2023.10346972.
- SALIH, A. A., & NASEREDDIN, A. Y. The Role of Strategic Awareness in Developing the Practice of Strategic Foresight in Business Organizations-Epistemological Perspective.
- Nasereddin, A. (2023). Exploring the effect of corporate environmental management responsibility on firm performance. *Uncertain Supply Chain Management*, 11(2), 625-636.
- Salih, A., Mousa, Z., & Nasereddin, A. (2023). The impact of career capital on sustainable competitive advantage: The mediating role of human resource management capabilities. *Uncertain Supply Chain Management*, 11(2), 489-502.
- Raza, A., Al Nasar, M. R., Hanandeh, E. S., Zitar, R. A., Nasereddin, A. Y., & Abualigah, L. (2023). A Novel Methodology for Human Kinematics Motion Detection Based on Smartphones Sensor Data Using Artificial Intelligence. *Technologies*, 11(2), 55.
- Nasereddin, A. Y. (2023). Impact of the Blue Ocean Strategy Dimensions in Achieving Competitive Advantage from the Perspective of Faculty Members.
- Nasereddin, A. Y. (2023). A Business Analytics Approach to Strategic Management using

Uncovering Corporate Challenges through Topic Modeling.

- Yacoub Nasereddin, Ahmad (2023) "The Impact of Lean Thinking on Strategic Planning in Industrial Companies in Jordan from the Upper and Middle Management: A Perspective Study," *Information Sciences Letters*: Vol. 12 : Iss. 6 , PP -
- William, P., Ahmad, A. Y. B., Deepak, A., Gupta, R., Bajaj, K. K., & Deshmukh, R. (2024). Sustainable Implementation of Artificial Intelligence Based Decision Support System for Irrigation Projects in the Development of Rural Settlements. *International Journal of Intelligent Systems and Applications in Engineering*, 12(3s), 48-56.
- Wang, C., Ahmad, S. F., Ayassrah, A. Y. B. A., Awwad, E. M., Irshad, M., Ali, Y. A., ... & Han, H. (2023). An empirical evaluation of technology acceptance model for Artificial Intelligence in E-commerce. *Heliyon*, 9(8).
- Yahiya Ahmad Bani Ahmad (Ayassrah), Ahmad; Ahmad Mahmoud Bani Atta, Anas; Ali Alawawdeh, Hanan; Abdallah Aljundi, Nawaf; Morshed, Amer; and Amin Dahbour, Saleh (2023) "The Effect of System Quality and User Quality of Information Technology on Internal Audit Effectiveness in Jordan, And the Moderating Effect of Management Support," *Applied Mathematics & Information Sciences*: Vol. 17: Iss. 5, Article 12. DOI: <https://dx.doi.org/10.18576/amis/170512>
- Zhan, Y., Ahmad, S. F., Irshad, M., Al-Razgan, M., Awwad, E. M., Ali, Y. A., & Ayassrah, A. Y. B. A. (2024). Investigating the role of Cybersecurity's perceived threats in the adoption of health information systems. *Heliyon*, 10(1).
- Shams, N. A. H. (2017). *Citizenship in the Digital Age - The Bahrain Model*. Studies Series, Bahrain Institute for Political Development.
- Tawfik, A. R. (2018). *Training Skills Approach: Training Planning and Needs Assessment*. Professional Expertise Center for Management. Egypt.
- Yaghi, M. A. F. (2010). *Administrative Training Between Theory and Practice*. Wael Publishing and Distribution. Oman.