2025, 10(59s) e-ISSN: 2468-4376

https://www.jisem-journal.com/

Research Article

The Role of Information Technology in Enhancing Work Quality: Field Study at Wasit University

¹Mejbel Isheer Meteab, ²Houda Hakim Guermazi ¹Wasit University ²Manouba University, Tunisia

ARTICLE INFO

ABSTRACT

Revised: 10 Feb 2025 Accepted: 28 Feb 2025

Received: 18 Dec 2024

This study explores the utilization of information technology to enhance the quality of work life of administrative and academic staff at Wasit University. The research aims to establish how the utilization of information technology systems assists in fostering various components of work quality, including employee participation, development opportunities, communication, appreciation, and job security. To this end, the study relied on a formal questionnaire as the primary data collection tool, which was formulated on the basis of validated measures from the literature. (220) responses were collected and analyzed using SPSS and AMOS software. The study experimentally verified a set of hypotheses for the direct effect of information technology on work life quality. Descriptive statistics, reliability analysis (Cronbach's Alpha), exploratory and confirmatory factor analyses, and structural equation modeling (SEM) were employed to analyze the hypothesized relationships. The findings demonstrate a statistically significant positive effect of information technology on work quality, highlighting its significant role in the facilitation of a conducive and productive work environment in institutions of higher learning. Based on these insights, the study provides theoretical contributions and practical recommendations for universities that seek to enhance employee well-being in the context of digital transformation.

Keywords: information technology, work quality, higher education

1. Introduction

Business organizations are increasingly interested in using information technology and developing its applications with the aim of digital transformation towards the electronic business environment. Eslaim & Hakim Guermazi 2023). With the advent of the digital era, information technology (IT) has become a revolutionary power in shaping organizational effectiveness (Hakim-Guermazi, and Nazzal, 2025), innovation (Naser, & Hakim Guermazi, 2024) and service provision, standing as a pillar of contemporary work quality improvement (Laudon & Laudon, 2020; Bahiya & Hakim Guermazi 2023). Work quality, marked by adherence to precision, timeliness, satisfaction of stakeholders, and resistance to evolving needs, increasingly relies on the integration of robust IT infrastructures that reduce processes, enable data-driven decision-making, and foster collaborative settings (Chen et al., 2021). In institutions of higher education, where the pursuit of educational, research, and administrative excellence is the greatest priority, IT adoption has special promise—though its fulfillment is frequently hindered by infrastructure constraints, resistance to change, and fragmented implementation (Al-Hawari & Mouakket, 2020). The present study investigates the contribution of IT to enhancing work quality at Wasit University, a central Iraqi university addressing the twin challenge of technological advancement and academic competitiveness. Through examining IT's contribution to operational efficiency, stakeholder engagement, and institutional performance, this research contributes to some of the most significant gaps in understanding how technology-informed strategies can meaningfully close the gap between theoretical models and actual quality improvement in higher education. Grounded in data gathered through field research, findings aim to serve actionable recommendations for academic leaders and policy-makers to follow, in addition to contributing depth to international discourse regarding the role of IT as a catalyst for organizational excellence (Venkatesh et al., 2016; Hakim Guermazi & Bahiva, 2023).

In depth, Information technology (IT) is pivotal in enhancing work quality by streamlining processes, enabling data-driven decisions (Hakim Guermazi & Fourati, 2016) and fostering collaboration (Eslaim.,

2025, 10(59s) e-ISSN: 2468-4376

https://www.jisem-journal.com/

Research Article

& Hakim Guermazi H., 2023), yet many academic institutions like Wasit University struggle to leverage IT effectively due to systemic barriers. Key challenges include fragmented collaboration between IT specialists and administrative/academic staff, unstructured data governance policies (Hakim Guermazi & Almia, 2015) that hinder the strategic use of big data and analytics, and limited awareness of how management information systems (MIS) can optimize organizational performance and stakeholder satisfaction (Hakim Guermazi & Riahi, 2018). This study investigates the direct impact of IT on work quality at Wasit University—focusing on academic rigor, administrative efficiency, and resource optimization—while identifying obstacles such as misaligned priorities, resistance to technological adoption, and insufficient training.

The central research question asks: "How does information technology contribute to improving work quality at Wasit University, and what systemic challenges impede its successful implementation?" The findings aim to provide actionable strategies for overcoming these barriers, ensuring IT systems align with institutional goals to elevate operational and educational outcomes.

This study is of crucial importance in investigating the so far under-emphasized nexus of information technology (IT) and academic work quality in institutions like Iraq's, where digitalization is still at its infancy stage but otherwise indispensable. Through the case study of Wasit University, the research bridges a literature gap that dwells on corporate or Western-centric education contexts, offering findings on how IT solutions can alleviate institutional inefficiencies, enhance academic and administrative outputs, and enhance stakeholder satisfaction in resource-limited environments. The findings will facilitate policymakers and scholarly managers in crafting context-specific IT strategies that appeal to organizational goals, bridge systemic barriers (e.g., fragmented collaboration, information mismanagement), and raise institutional competitiveness. Furthermore, the study contributes to global discourse on digital adoption within higher education, providing transferable frameworks for universities in similar circumstances across emerging economies.

The primary objective of this research is to investigate the role of information technology in enhancing work quality at Wasit University, with a focus on its role in academic seriousness, administrative efficiency, and stakeholder engagement, and the systematic problems that hinder IT from achieving its maximum potential.

The study seeks to achieve the following: (1) assess how current IT systems are impacting measures of work quality, such as service delivery, speed of decision, and resource optimization; (2) identify key barriers—technological, cultural, and procedural challenges—that impede successful incorporation of IT into academic and administrative operations; (3) compare stakeholders' opinions regarding the contribution of IT towards improving institutional performance, focusing on faculty members, administrators, and students; and (4) suggest implementable actions to raise IT adoption rates, with an eye to promoting Wasit University's goal of delivering high-quality education and operational excellence.

2. Literature Review

This section offers a comprehensive analysis of the relevant literature on the impact of information technologies on improving work quality. It describes the main theoretical foundations and previous empirical evidence, as well as the evolution of technological implementation in organisational settings and the quality of work. The objective is to provide a solid conceptual framework to support this research and to identify gaps in previous research.

2.1 Information technology

2.1.1The concept of information technology

Information technology plays a critical role in improving organizational performance and work quality. It significantly speeds up processes, reduces errors, and facilitates integration across different tasks. The Technology Acceptance Model (TAM), developed by Davis in 1989, posits that employees' adoption of information technology depends on their perception of its usefulness and ease of use, which in turn

2025, 10(59s) e-ISSN: 2468-4376

https://www.jisem-journal.com/

Research Article

positively impacts performance quality. Sociotechnical systems theory supports this approach, emphasizing that the effectiveness of technology depends on its integration with the human components within the work environment (Trist and Bamforth, 1951, Hakim Guermazi & Kessentini, 2017; Hakim Guermazi & Zorai 2017).

The term "Information Technology" emerged in the early 1950s, referring to the use of computers in both government and private business. Information technology encompasses all technologies, computers, software, and communications used by an organization and its human resources to gather and implement the information necessary to carry out its various activities. This is done with the goal of enhancing efficiency, effectiveness, and creativity, thus achieving the organization's strategic objectives, growth, and development (Boudarbat and al 2021, Hakim Guermazi & Eslaim 2023). Information technology is a strategic weapon that can help build organizational capabilities by providing the best data and information, enhancing the organization's relationship with customers and other organizations (Hakim Guermazi & Ayad 2012). It has been described as the technological ability to obtain, process, and exchange data for the purpose of making effective decisions within the organization (Sanders, 2007). Al-Hawasi and Al-Barzanji defined it as all technologies used to collect, store, process, and transmit the results of information analysis, classification, and extraction processes, and to direct their use by beneficiaries in the easiest ways, while ensuring accuracy, speed, and timeliness. Sharif and Awda defined information technology as a set of technologies represented by the physical entity, software components, and human resources, in addition to the procedures used to organize the work of these components together in order to manage data and information efficiently. Based on the above, it can be said that information technology encompasses all the technologies used by contemporary organizations to collect information used in carrying out their various activities with the highest degree of efficiency and effectiveness, in a manner that leads to their excellence and success. (Sharif Atheer Anwar Odeh, 2016)

Information technology is defined as all activities related to the study, analysis, design, development, support and operation of computer-based information systems. This technology is concerned with the use of computers and their software applications to transfer, store, protect, process, send and securely retrieve data and information (Mustafa, 2016).

2.1.2 Dimensions of Information Technology

The dimensions of information and communication technology are the main axis for the proper performance of this technology, as without it, it cannot be more technologically effective and performant without the power of ambition. Therefore, its classification and presentation have received more attention. In this context, Krajewski and Ritzman (2005) identify the fundamental aspects of ICT as computers, information networks, current databases, software, and specialised personnel. Al-Hashemi (2003) contends that the primary components of ICT include hardware, equipment, software, applications, and associated human resources. Al-Taie (2006) delineates the primary components of ICT as hardware, software, applications, communication systems, and personnel.

On the other hand, strategic planning has been linked to the quality and type of work in business organizations. Efficiency in work and quality in performance cannot exist in the organization's operations without sound strategic planning that clarifies the organization's mission and its long- and short-term objectives, and without strategic plans that translate this mission and objectives into a tangible reality and enable individuals to carry out their jobs and tasks to the fullest extent and advance their work as it should be in line with the clarity and transparency in the work and responsibilities that strategic plans provide (Saleh Majid Muhammad, 2011).

2.2 The quality of work

Interest in the term quality has increased since the beginning of the seventies of the twentieth century, and this concept has developed with the development of the ages. The search for the concept of total quality began in developed countries, which has been defined as a modern administrative philosophy and a comprehensive administrative approach that aims to bring about radical and positive changes within the organization., These changes encompass various aspects, such as prevailing ideas and values, behaviors, management concepts, leadership style, work procedures, production processes, and relationships with stakeholders within the organization (hakim Guermazi, 2017). This approach aims

2025, 10(59s) e-ISSN: 2468-4376

https://www.jisem-journal.com/

Research Article

to develop all components of the organization's work to achieve the highest possible level of quality at the lowest cost, while achieving customer satisfaction, which is the key element to ensuring the organization's continuity in the market (Joudah, 2006).

2.2.1 The concept of quality of work

Total Quality Management (TQM) provides a framework for analyzing the relationship between continuous improvement and the use of technological tools to enhance work quality, focusing on internal processes, employee satisfaction, and the quality of outcomes (Deming, 1986). Theories suggest that the effective and accurate use of information technology is a critical factor in improving work quality at both the individual and organizational levels.

Quality of work is defined as: new working conditions, appropriate supervision, appropriate and adequate salaries and rewards, a degree of attention, working relationships that allow a degree of participation in decision-making, and a sense of having a role in achieving organizational results (Amouri, 2019).

But Walton defined it through aspects of working life, including compensation and working conditions, employee rights, and opportunities for growth and advancement (Rafaf, 2019).

Undead Career addresses the concept of quality in work through the level that meets and exceeds the expectations of the client or the company, for its mastery, and meeting the expectations of achievement (Career, 2023).

The term "work quality" is associated with numerous influences: employers, employees, and customers. Its importance is also linked to the organization's reputation and the ongoing marketing of work, which contributes to expanding marketing reach, increasing production volume, and increasing operational capacity with minimal waste of resources (Ibrahim, 2023).

2.2.2 Dimensions of work quality

Quality of work life is an important concept that affects employee productivity and performance. Researchers have proposed several dimensions of this concept, and have agreed on a set of key factors that play a role in achieving an ideal work environment.

- Occupational Health and Safety: It contributes to reducing labor costs, providing a safe work environment, and strengthening relations between employees and management (Muayad Saeed Al-Salem, 2008).
- 2. social relations: It is based on respect and cooperation, which positively impacts performance and productivity (Karim, 2020).
- 3. Wages and salaries: It plays a vital role in motivating employees, as it affects motivation and organizational performance.
- 4. Supervision and participation of employees in management: It enhances employee participation in decision-making, which raises morale and belonging to the organization (Hamid, 2017).
- 5. Job security and stability: It provides a sense of reassurance, leading to improved performance and increased organizational loyalty.
- 6. Promotion and career advancement: It enhances employee satisfaction and motivates them to deliver outstanding performance (Odeh, 2018).

3. The Model of Study

The study model serves as a conceptual framework for a set of facts that provide a simplified representation of the phenomenon to be studied, represented by three variables (modern information technology, work quality, and strategic planning). Their measurements were determined within the administrative literature related to the research topic. The study model variables will be explained as follows:

1. The independent variable, represented by modern information technology and its dimensions (operational efficiency, data management, employee productivity, innovation, and cost reduction).

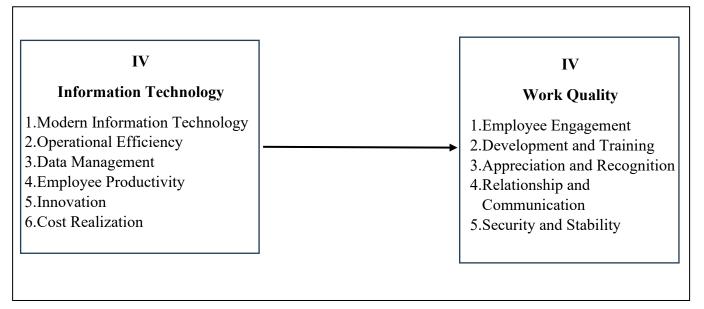
2025, 10(59s) e-ISSN: 2468-4376

https://www.jisem-journal.com/

Research Article

2. The dependent variable, represented by work quality and its dimensions (employee engagement, development and training, appreciation and recognition, relationships and communication, and security and stability). As it illustrated in figure (1).

Figure (1) Proposed Model



Source: Researchers

4. Research Methods:

4.1 Methodology

We used quantitative research that employs the descriptive and analytical approach to establish the role of information technology (IT) in enhancing the quality of work at Wasit University. Descriptive refers to by systematic reviewing of literature via scholarly journals, books, and past studies utilized in establishing theory frameworks on how IT influences institution efficiency and service quality. The analytical strategy is brought into practice with field information collected from formal questionnaires completed by instruction staff and administrative staff at Wasit University, under the auspices of Iraq's Ministry of Higher Education and Scientific Research. Statistical-based quantitative analysis of data examines relations between work quality metrics (decision-making speed, resource utilization, stakeholder satisfaction) and IT adoption (e.g., digital instruments, information management systems). By prioritizing empirical, quantitative facts, the method ensures objective evidence of systemic problems and IT's transformational potential in education setting.

4.3 Data Collection Methods

Practical aspect: The practical aspect includes a field study at the Iraqi Ministry of Higher Education and Scientific Research (University of Wasit) to understand the role of information technology in the relationship Information technology and work quality among the study sample, Data is collected through a questionnaire distributed to faculty and staff in the community. A five-point Likert scale is used in this questionnaire.

4.4 Measurement of Study

This research was divided into four segments to measure its main variables quantitatively. The first section was on present-day information technology as the independent variable, utilizing a series of previous research as reference points.

2025, 10(59s) e-ISSN: 2468-4376

https://www.jisem-journal.com/

Research Article

The data collection utilized a specifically designed questionnaire grounded in research theory and corroborated by pertinent literature. The questionnaire was pretested by academic experts to verify its relevance and validity. Primary sources that support the measurement of job quality comprise studies conducted by Osama and Al-Balbisi (2012), Bashir and Al-Zaybaq (2018), Hosni and Al-Dahdouh (2014), Mahmoud and Abu Odeh (2018), and Nihad and Al-Shanti (2016). This research analyzed multiple aspects of job quality and its correlation with job performance, organizational Behaviour, institutional excellence, and ethics.

4.5 The Research Sample.

The research sample comprised a number of professors and employees working in departments at the Iraqi governmental University of Wasit, to whom questionnaires were distributed (in the university presidency and its affiliated colleges). The study sample was selected from these levels based on their experience and ability to answer the study questions. This is particularly true since most of them hold university degrees or higher and possess preliminary knowledge of the importance of questionnaires. The study sample consisted of (225) employees. The questionnaires were distributed, and all questionnaires were returned, while (5) questionnaires were excluded for not meeting the requirements of scientific research (such as not answering general information, or providing two answers to the same paragraph, which makes it difficult to choose the appropriate answer). Accordingly, the response rate was approximately (97.7%), which is a high percentage suitable for conducting analysis and arriving at conclusions related to the phenomenon under study.

5. Description of the study Sample and its variables

5.1 Respondents' Demographics

Table (1) presents 220 Wasit University respondents with nearly evenly split gender (49.5% male, 50.5% female), decreasing opportunities for bias in IT and quality of work perceptions, while the predominance (24.1%) of the 51+ age group is an experienced workforce whose know-how may offer advanced insights into technology uptake. The dominance of advanced academic degrees—60.9% Master's and 19.7% PhDs—represents an extremely well-educated population who will likely require advanced IT solutions to meet the needs of their institutions. Job titles are in mid-career faculty, represented by Assistant Professors (30.5%) and Lecturers (24.5%), demonstrating their paramount role in managing pedagogical, research, and administrative IT. Also, 61.8% of the sample have over 11 years of tenure, with 22.3% having 21–25 years, indicating long-term institutional familiarity necessary to examine long-term IT problems and successes. Combined, such demographic heterogeneity offers in-depth explanations of how varying expertise, roles, and tenure impact IT's impact on job quality.

Table (1) Respondents Profile

Table (1) Respondents Frome						
Variable	Categories	Frequency	Percentage (%)			
Gender	Male	109	49.5%			
	Female	111	50.5%			
Total		220	100%			
Age Group	Under 30 years	16	7.3%			
_	31 to 35 years	30	13.6%			
	36 to 40 years	34	15.5%			
	41 to 45 years	42	19.1%			
	46 to 50 years	45	20.5%			
	51 years and above	53	24.1%			
Total		220	100%			
Educational Level	High School	8	3.6%			
	Diploma	12	5.4%			
	Bachelor's Degree	17	7.7%			
	Higher Diploma	6	2.7%			
	Master's Degree	134	60.9%			
	PhD	43	19.7%			
Total		220	100%			
Job Position	Employee	43	19.5%			

2025, 10(59s) e-ISSN: 2468-4376

https://www.jisem-journal.com/

Research Article

	Assistant Lecturer Lecturer	36 54	16.4% 24.5%
Total	Assistant Professor	67 220	30.5% 100%
	Professor	20	9.1%
Years of Service	1 to 5 years	20	9.1%
	6 to 10 years	22	10.0%
	11 to 15 years	47	21.4%
	16 to 20 years	42	19.1%
	21 to 25 years	49	22.3%
	26 years and above	40	18.2%
Total		220	100%

Source: Researchers

5.2 Descriptive analysis

Table 2 presents descriptive statistics for latent variables for Information Technology (IT) and Work Quality in Wasit University, based on the answers of 220 participants. For IT constructs, the highest scored were Operational Efficiency (Mean = 4.16, SD = 0.687) and Data Management (Mean = 4.13, SD = 0.679), indicating very high perceived effectiveness of IT systems to improve workflow and manage institutional data, while the adoption of Modern IT scored moderately (Mean = 3.657, SD = 0.748), indicating potential for technological advancement. Work Quality constructs such as Development and Training (Mean = 4.165, SD = 0.564) and Employee Engagement (Mean = 4.12, SD = 0.570) reflect high satisfaction with career advancement and workplace morale, though Security and Stability (Mean = 3.95, SD = 0.594) was less so, reflecting concern about job security or company resilience. Overall, high overall means for IT (4.051) and Work Quality (4.060) with low standard deviations (0.392 and 0.388, respectively) indicate consistently positive perceptions of IT's role in institutional performance, even if there can be concentrated improvement in IT modernization and workplace stability to further enhance results.

Table 2. Descriptives statistics for Latent Variables

Constructs	N	Mean	Std. Deviation		
Information Technology					
Operational Efficiency	220	3.657	.7484		
Data Management	220	4.160	.6872		
Employee Productivity	220	4.130	.6788		
Innovation	220	3.981	.7841		
Cost Realization	220	4.071	.7101		
Total	220	4.051	.3924		
Work Quality					
Employee Engagement	220	4.120	.5701		
Development and Training	220	4.165	.5642		
Appreciation and Recognition	220	4.135	.5703		
Relationship and Communication	220	4.0725	.5830		
Security and Stability	220	3.9501	.5939		
Total		4.060	0.3879		

Source: Researcher based on SPSS Results

6.Hypotheses Test

The current research aims to validate the statistical hypotheses of validity of the study and to investigate and analyze the relationship of correlation, influence, based on the following criteria:

2025, 10(59s) e-ISSN: 2468-4376

https://www.jisem-journal.com/

Research Article

6.1 Test of Regression Hypothesis (Impact Correlation)

First Main Hypothesis

There is a statistically significant relationship between work life quality and modern information technology, with all its aspects.

Results of the Regression Analysis test are presented in table 3 as follow:

Table (3) Results of the Regression Analysis test to identify the impact of information technology on the quality of work life.

variable	T-test	R	R-square	Sig
Operational Efficiency	14.773	.707	.707	.000
Data Management	19.371	.795	.795	.000
Employee Productivity	16.238	.740	.740	.000
Innovation	18.360	.779	.779	.000
Cost Realization	20.729	.815	.815	.000
Total Index of IT	54.132	.965	.965	.000

Source: Researcher based on SPSS results

The findings shown in Table (3) highlight a robust and highly positive correlation between modern information technology and work life quality, as evidenced by a correlation coefficient of R = 0.965. The R^2 value of 93% indicates that a significant portion of the variability in work life quality can be attributed to the use of modern information technology. Additionally, the T-statistic (54.132) significantly exceeds the threshold value of 1.98, with a significance level of less than 0.05, thereby supporting the rejection of the null hypothesis and confirming a notable influence of modern IT on work life quality.

And from it derive the following sub-hypotheses:

H1.1

There is a statistically significant impact of contemporary information technology (operational effectiveness) on the work life quality.

According to Table (3), correlation coefficient (R = 0.707) reflects moderate positive correlation, while R^2 (50%) shows that operational efficiency accounts for 50% variation in quality of work life. The T-value (14.773) is higher than 1.98, and significance level (sig = 0.000) confirms the existence of the relationship. Thus, the alternative hypothesis is accepted as it establishes the effect of operational efficiency on quality of work life.

H1.2 There is a statistically significant effect of new information technology (data management) on the quality of work life.

As depicted in Table (3), a moderate positive correlation exists between data management and quality of work life, with R = 0.795 and $R^2 = 63\%$. The T-value (19.371) is much larger than 1.98, while the significance level (sig = 0.000). Hence, data management is confirmed to have a positive effect on quality of work life.

H1.3 There is a statistically significant impact of modern information technology (employee productivity) on the quality of work life.

The table analysis (Table 3) indicates a positive and moderate relationship between employee productivity and quality of work life (R = 0.740; $R^2 = 54\%$). The T-value (16.238) is greater than the critical value, and the p-value (sig = 0.000) guarantees statistical significance. This allows it to be possible to accept the alternative hypothesis, confirming that employee productivity affects quality of work life significantly.

2025, 10(59s) e-ISSN: 2468-4376

https://www.jisem-journal.com/

Research Article

H1.4: There is a statistically significant effect of new information technology (innovation) on work life quality.

Outcomes in Table (3) indicate moderate direct effect of innovation on work life quality, as indicated by R = 0.779 and $R^2 = 60\%$. Both the T-value (18.360) and the significance level (sig = 0.000) confirm a strong relationship. Thus, the alternative hypothesis is set.

H1.5: There is a statistically significant effect of new information technology (cost realization) on work life quality.

Table (3) indicates a positive and moderate relationship between cost realization and quality of work life with R = 0.815 and $R^2 = 66\%$. The T-value (20.729) is well above the cut point, and the significance level (sig = 0.000) confirms the relationship. The alternative hypothesis is thus accepted, thereby confirming the impact of cost realization on quality of work life.

Results' Discussion

The statistical results of the first main hypothesis and the sub-hypotheses derived from it indicate that there is a significant relationship between modern information technology in all its dimensions and quality of work life, and that modern information technology effects on quality of work life.

The findings of present study show that current information technology has a direct and modest favorable influence on quality of work life. This result may be due to the ability of information technology to improve communication, reduce repetitive tasks, and provide employees with greater flexibility in how and where they perform work. However, it is also important to note that despite the benefits of information technology, its indiscriminate use can lead to increased stress and job pressure, as some conflicting studies have shown. Therefore, it is essential to adopt a balanced approach to the implementation of information technology in organizations to maximize its positive impact on quality of work life.

The study concerning Information Technology and Work-Life Balance by Gordon et al. (2015) indicates that information technology has a significant positive impact on improving quality of work life. This study confirmed that the application of modern information technology in the workplace increases the effectiveness of communication and coordination among employees, contributes to improved productivity, which in turn leads to improved quality of work life and employee satisfaction. The results also showed that the use of technology contributes to reducing the burden of manual and routine work and allows employees greater flexibility in organizing their time, which improves work-life balance and enhances quality of life at work. On the other hand, the study of the Dark Side of IT focusing on Stress and Work-Life Imbalance of Johnson et al. (2017) suggests that the use of information technology may lead to increased levels of stress and work-life pressure. According to this study, although information technology provides flexibility in work performance, it also leads to employees being overwhelmed with emails and constant distractions, which contribute to a deterioration in work-life balance and increased feelings of burnout. Therefore, this study demonstrated that the impact of information technology on quality of work life is not necessarily always positive and may lead to increased stress and a loss of psychological stability.

Studies supporting this finding point to the significant benefits of information technology in improving quality of work life by facilitating communication, improving operational efficiency, and reducing repetitive tasks. Studies opposing this finding focus on the negative impact of constant communication and excessive expectations of work via technology, which can lead to increased stress and tension.

Conclusion

From this research, we can support that the impact of information technology on quality of work life depends largely on how it is used and implemented in organizations, with a balance between potential benefits and potential risks.

In the light of our findings. This study made the following recommendations:

Institutions, including universities, should increase their investment in modern information technology to improve operational efficiency, improve data management, and increase employee

2025, 10(59s) e-ISSN: 2468-4376

https://www.jisem-journal.com/

Research Article

productivity. This will have a positive impact on the development of strategic planning within the organization.

Institutions should work to improve the quality of work life by promoting active employee engagement, providing development and training opportunities, and emphasizing the importance of appreciation and recognition. This contributes to enhancing employee engagement with strategic objectives.

It is essential for institutions to continue to encourage innovation using advanced information technology to provide new and sustainable solutions that help achieve strategic objectives more effectively.

Emphasis should be placed on providing ongoing training programs for employees to enhance their technical skills, which contributes to improving their efficiency and increasing productivity, which positively impacts the quality of work life.

Based on the study's results, a number of theoretical and practical implications may be taken that highlight the relevance of incorporating information technology into the academic work environment, as well as its direct and indirect influence on work-life quality. The following is a concise summary of the most important of these implications:

This study strengthens the theoretical framework of the relationship between information technology and quality of work life. It presents an integrated vision that shows how information technology can positively impact dimensions of quality of work life, including engagement, development, job security, and communication. The research also includes quality of work life as an intervening variable that interacts with technology, adding to the literature and emphasizing the human component of technological applications. This brings up new opportunities for academics to investigate the interplay of technological and social elements in academic work contexts.

The study's findings indicate investing in information technology may significantly increase work quality at institutions. This necessitates that university administrations incorporate technology into their policies in such a manner that it promotes a positive work environment by offering effective digital platforms and increasing possibilities for staff training, recognition, and communication. The study's findings may also be utilized to create administrative initiatives aimed at making digital transformation a driver for staff happiness and stability rather than just a technical objective, therefore promoting institutional sustainability and effectiveness.

Despite the value this research contributes, there are a couple of limitations to keep in mind. The study was limited to one particular academic environment, and thus the results may be restricted regarding generalizability to other types of cultural or institutional environments. Second, the data were derived from self-report surveys, which have the possibility of being susceptible to bias or distortion in attitudes. Future research is encouraged to extend the sample across different educational institutions in different regions of the country and employ mixed methods designs integrating qualitative and quantitative tools for gathering richer data. Furthermore, longitudinal studies may assist in having a better notion about how the integration of information technology incessantly affects the quality of work life over a stretch of time. Exploration of additional mediating or moderating variables, such as organizational culture or digital literacy, could potentially contribute further to understanding these relationships.

References

- [1] Al-Aal:, Muhammad Ali Abu. (2013). *Communication Theories in Light of Communication Technology and Globalization*. Egypt: Dar Al-Ilm Wal-Iman for Publishing and Distribution.
- [2] Al-Ajami, M. H. (2008). *Educational Administration and Planning: Theory and Application*. Amman: Dar Al-Masirah for Publishing and Distribution.
- [3] Al-Hashemi, S. M. (2003). *The Role of Information Culture in the Subject of Administrative Process Engineering, Unpublished Master's Thesis,*. College of Administration and Economics, University of Mosul.
- [4] Al-Hawari, M., & Mouakket, S. (2020). The influence of technology adoption on academic performance. Computers & Education, 153, 103899.

2025, 10(59s) e-ISSN: 2468-4376

https://www.jisem-journal.com/

- [5] Al-Hilali Al-Sharbini Al-Hilali. (2004.). Strategic Planning and the Dynamics of Change in Educational Systems,. Alexandria: New University Publishing House,.
- [6] Al-Jabouri, N. G. (2008). The Relationship between Knowledge Management Processes and the Dimensions of Work Life Quality: A Survey Study in the General Company for Ready-Made Garments in Nineveh Governorate. Iraq: Unpublished Higher Diploma Thesis, College of Administration and Economics, University of Mosul,.
- [7] Al-Omari, G. I. (2004). The Joint Use of Information Technology and Knowledge Management to Achieve High Business Value for Jordanian Commercial BankCS. PhD Thesis, University of Jordan.
- [8] Al-Taie, M. A. (2006). *Introduction to Management Information Systems and Information Technology*, Amman: Dar Al-Yusr for Publishing and Distribution.
- [9] Alwan, Q. N. (2018). Total Quality Management and ISO 9001:2000 Requirements,.
- [10] Al-Zayoudi, M. M. (2012). The Role of Information and Communication Technology in the Education Development Project Towards a Knowledge Economy in Developing Life Skills for Jordanian Public School Students. *Arab Journal for the Development of Excellence.*, p. 93.
- [11] Amouri, F. A.-A.-S. (2019). The Impact of Employee Quality of Life on Job Engagement among Senior Management Employees. Contemporary Economic Studies. *Contemporary Economic Studies*, pp. 121-131.
- [12] Artur Victoria. (2021). Strategic Planning.
- [13] Bahiya T.H., Hakim Guermazi H. (2023). "the moderating effect of qualification in the nexus value stream mapping and productivity improvement". American Journal of Interdisciplinary Research and Development, 15, 34–53.
- [14] Beheshtifar, M. &. (2013). HR Maintenance: A Vital Factor to Promote Job Commitment,. *International Journal of Academic Research in Business and Social Sciences*, p.199-200.
- [15] Bigelow, S. J. (2022). complete guide to unified endpoint management.
- [16] Blackerby, P. (2017). History of Strategic Planning. Retrieved from , from http://www.blackerbyassoc.com/history.html
- [17] Boudarbat B., HAKIM GUERMAZI H., NDIAYE M., (2021), COVID 19: Economic and social impacts, response policies and resilience strategies, 326 p (in French), Legal Deposit: Library and National Archives of Quebec, 2021, ISBN 978-2-9819303-3-0
- [18] Bouhila, A. B. (2021). The Effectiveness of E-Learning in Light of the Spread of the Coronavirus from the Perspective of Teachers at the Faculty of Humanities and Social Sciences at Mohamed Boudiaf University, M'sila. *Journal of Media and Society*, p. 363.
- [19] Bukhari, S. (2019). "What Is Strategy?". Retrieved from www.researchgate.net
- [20] Career, M. (2023). Quality at Work, The Comprehensive Arab Encyclopedia.
- [21] Chen, Y., Wang, Y., & Nevo, S. (2021). IT capabilities and organizational agility: The mediating effects of digital options. Information & Management, 58(2), 103361.
- [22] Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 13(3), 319–340. https://doi.org/10.2307/249008
- [23] Declay, E. (2005). what is a database, the journal of world intellectual property,. ,university of Nottingham, .
- [24] Deming, W. E. (1986). Out of the Crisis. MIT Press.
- [25] Dilou, F. (431 AH/2616 AD). *New Technology for the World and Communication: "Concept, Uses, Prospects,"*. Amman, Jordan: Dar Al Thaqafa for Publishing and Distribution.
- [26] Discussion, E. (2021). Quality of Work Life,. Retrieved from Economics Discussion
- [27] DR.Radhika Kapur. (2014). use of technology in school governance and administration. university of Delhi.

2025, 10(59s) e-ISSN: 2468-4376

https://www.jisem-journal.com/

- [28] Eslaim S. H., & Hakim Guermazi H. (2023). "The impact of information technology integration and human capital on strategic performance- an exploratory study in iraqi asiacell telecom company". American Journal of Interdisciplinary Research and Development, 15, 20–33
- [29] FaisaL, N. S. (Vol. 1, 2018.). Information Technology and its Role in Improving the Quality of Higher Education. *Al-Mufaker Journal for Legal and Political Studies*.
- [30] Gabriele PICOLI. (2018). information systems for managers with cases, prospect press.
- [31] Gutterman, A. S. (2023). Introduction to Strategic Planning. Sustainable Entrepreneurship Project.
- [32] Hakim Guermazi, H. and Nazzal, M.E. (2025), "The impact of business intelligence on environmental sustainable development goals (ESDGs): an applied study in the Iraqi cement company", Society and Business Review, https://doi.org/10.1108/SBR-09-2024-0314
- [33] Hakim Guermazi H. and Eslaim S.H. (2023) "The Role of Organizational Change to Improving Strategic Performance: An Analytical Study to the Opinions of Employees of Asia Cell Telecom Company" AL-Qadisiyah Journal For Administrative and Economic sciences
- [34] 2023, Volume 25, Issue 3, Pages 44-56
- [35] Hakim Guermazi H. and Bahiya T.H. (2023) « The Impact of Technological Change in Enhancing the Role of Lean Manufacturing as a Strategy to Improve the Productivity of the Organization: A Field Study in Diwaniyah Tires Factory » AL-Qadisiyah Journal For Administrative and Economic sciences, Volume 25, Issue 2, Pages 83-98
- [36] HAKIM GUERMAZI H. (2017) "Mediating effect of risk management and direction style in innovation –service quality relationship: study of insurance and banking in Tunisia" (in French), Question(s) de Management, N°18, nov, pp: 113
- [37] HAKIM GUERMAZI H., Zorai A. (2017) "Online Project Management and PHP7 Application: A Real Case Study", in: Digital Economy Emerging Technologies and Business Innovation, Edition: Lecture Notes in Business Information Processing 290, Publisher: Springer, Cham, Switzerland, ISBN: 978-3-319-62736-6, July 2017, pp.116-128.
- [38] HAKIM GUERMAZI H., KESSENTINI A. (2017) "Training and skills/career management: Case of involvement in the ERP dynamics Nav 2015" International Journal Economics & Strategic Management of Business Process Vol.8, Issue 1, pp.181-195,
- [39] HAKIM GUERMAZI H. (2017) "Mediating effect of risk management and direction style in innovation –service quality relationship: study of insurance and banking in Tunisia" (in French), Question(s) de Management, N°18, nov, pp: 113
- [40] Hakim Guermazi H., FOURATI M.A.: (2016): "Intelligent Dashboard and Risk Management: Tunisian case Study" International Journal of Business & Economic Strategy, Vol 4, Special issue 1; ISSN:2356-5608, International Publisher and C.O.
- [41] HAKIM GUERMAZI H., ALMIA H. (2015): "Formal Network Governance and knowledge Sharing: Tunisian Networks Study" International Journal of Economics & Strategic Management of Business Process Vol.4, Special issue; ISSN: 2356-5608
- [42] Hamid, H. I. (2017). *Master's Thesis, Department of Business Administration*., Faculty of Commerce, Islamic University of Gaza.
- [43] Ibrahim, I. (2023). What is Quality of Work.
- [44] Imad Hassan Hadhoud. (2021). Information and Communication Technology and its Impact on Educational Institutions, . *Middle East Journal of Humanities and Cultural Sciences*, p. 443.
- [45] Iyad Al-Dajani. (2007). *The Reality of Strategic Planning at the Islamic University in Light of Quality Standards, Unpublished Master's Thesis,*. Gaza: Faculty of Education, Islamic University of Gaza.
- [46] Joudah, M. A. (2006). Total Quality Management. Amman: Wael Publishing House.
- [47] Kam Cheong LI, T.-l. W. (ICTE 2014). technology in education, first international conference,. Honk kong, China.
- [48] Kapur, D. R. (2019). use of technology in school governance and administration. university of Delhi,.
- [49] Karim, Y. B. (2020). Localization of ISO 9000 Quality Management Systems in Economic Institutions. *International Forum on Effective Management in Economic Institutions, M'Sila*, p. 84.
- [50] Kenneth C. Laudon, J. P. (2014). Management Information Systems, Managing the Digital Firm. England.

2025, 10(59s) e-ISSN: 2468-4376

https://www.jisem-journal.com/

- [51] Kowalczyk. K. (2014). New public management in education, toknowpress.net, 2014. toknowpress.net.
- [52] Kragewski & Ritzmanlarry. (2005). 'operations management processes & value chains. USA.
- [53] Laudon K.C., L. J. (2014). management information system., new jersey, pearson.
- [54] Laudon, K. C., & Laudon, J. P. (2020). Management Information Systems: Managing the Digital Firm (16th ed.). Pearson.
- [55] Levels of Strategy: Types of Strategic Alternatives. (2021). Retrieved from www.iedunote.com
- [56] Mansour Ghuloum. (2004). *E-learning in the schools of the Ministry of Education in the State of Kuwait Riyadh*, . Riyadh: a working paper presented to the E-learning symposium, King Faisal Schools.
- [57] Marouf, H. (2009)., Strategic Planning. Amman, Jordan: Wael Publishing House,.
- [58] McGraw-Hill. (1981). Techniques of Organizational Change, McGraw-Hill., New York.
- [59] Muayad Saeed Al-Salem. (2008). Organizational Theory: Structure and Design. Amman: Wael Publishing House,.
- [60] Muhammad Salih Al-Awaid and Ahmad bin Abdullah Al-Hamid. (, 2004.). *E-learning in the College of Communication and Information: A Case Study*. Riyadh: A paper presented to the Open Education Symposium at King Faisal Schools.
- [61] Mustafa, A. A.-S. (2016). the Use of Information Technology in Accounting, Faculty of Commerce, Accounting Department, Cairo, p. 16. Cairo: Faculty of Commerce, Accounting Department.
- [62] Najm Abdullah Al-Azzawi, A. H. (2010). *Strategic Functions in Human Resources Management*. Amman, Jordan: Al-Yazouri Scientific Publishing and Distribution House.
- [63] Odeh, M. I. (2018). *The Impact of Quality of Work Life on Achieving Institutional Excellence,*. Master's Thesis, Department of Business Administration, Faculty of Commerce.
- [64] Opentextbook.site. (2019). what is an information system?, chapter one.
- [65] ORLEANS, S. U. (2011). Strategic Implementation Plan.
- [66] Rafaf, A. M. (2019). Quality of Work Life in Light of the Variables of Experience and Vocational Education. *Al-Bishr Economic Journal*, pp. 458-472.
- [67] Raymond. L. and House, C. (1991). H. The Return Map: Tracking Product Teams. Harvard.
- [68] Reshma, S. &. (2013). Employee Welfare Measures In Mining Industry A Study With Reference To Statutory Welfare Measures In NMDC, Donimalai Iron Ore Mine, Bellary District, EXCEL. International Journal of Multidisciplinary Management.
- [69] Richard Riley. (2001). The Foundation of Knowledge. *National and Effective Schools in the Education Mission, USA, US Information Agency*, pp. 3-6.
- [70] Ronghuai Huang, J. M. (2014). *educational technology*. pringer, university of north texas.
- [71] Saleem, A. e. (2012). Impact of Interior Physical Environment on Academicians' Productivity in Pakistan Higher Education Institutes Perspectives. Iranian Journal of Management Studies.
- [72] Saleh Majid Muhammad. (2011). Components of Information and Communication Technologies and their Impact on the Quality of Education by Adopting the Requirements of Total Quality Management. *Proceedings of the Annual Conference of the College of Administrati*.
- [73] Samah Hussein. (2021). Challenges of E-Learning and Lessons Learned from the Corona Crisis. *Dar Al-Kitab Al-Thaqafi*, p. 24.
- [74] Sanders, R. N. (2007). The Benefits of using e-business technology: the supplier perspective. . *Journal of Business Logistics*, 177-207.
- [75] Sayed Mohamed Gad Allah. (2005). *Organization and Management of Business Organizations*. Cairo: Al-Ashry Press.
- [76] Sharif Atheer Anwar Odeh, B. K. (2016). The Role of Information Technology in Job Performance. *a study published in the Journal of Economic and Administrative Sciences*, 175.

2025, 10(59s) e-ISSN: 2468-4376

https://www.jisem-journal.com/

- [77] support.google.com/edu. (n.d.). retrieved 2-10-2022.
- [78] Thabet Abdel Rahman Idris. (2007). *Management Information Systems in Contemporary Organizations*. Faculty of Commerce, Menoufia University.
- [79] Tim Berners-lee. (2021). www3.org, website.
- [80] Trist, E. L., & Bamforth, K. W. (1951). Some social and psychological consequences of the longwall method of coal-getting. Human Relations, 4(1), 3–38. https://doi.org/10.1177/001872675100400101
- [81] AlShourbaji, I., Helian, N., Sun, Y. *et al.* An efficient churn prediction model using gradient boosting machine and metaheuristic optimization. *Sci Rep* 13, 14441 (2023). https://doi.org/10.1038/s41598-023-41093-6
- [82] Nimma, D., Aarif, M., Pokhriyal, S., Murugan, R., Rao, V. S., & Bala, B. K. (2024, December). Artificial Intelligence Strategies for Optimizing Native Advertising with Deep Learning. In 2024 International Conference on Artificial Intelligence and Quantum Computation-Based Sensor Application (ICAIQSA) (pp. 1-6). IEEE.
- [83] Al-Shourbaji, I., Alhameed, M., Katrawi, A., Jeribi, F., Alim, S. (2022). A Comparative Study for Predicting Burned Areas of a Forest Fire Using Soft Computing Techniques. In: Kumar, A., Senatore, S., Gunjan, V.K. (eds) ICDSMLA 2020. Lecture Notes in Electrical Engineering, vol 783. Springer, Singapore. https://doi.org/10.1007/978-981-16-3690-5 22
- [84] Dash, C., Ansari, M. S. A., Kaur, C., El-Ebiary, Y. A. B., Algani, Y. M. A., & Bala, B. K. (2025, March). Cloud computing visualization for resources allocation in distribution systems. In *AIP Conference Proceedings* (Vol. 3137, No. 1). AIP Publishing.
- [85] Jameel, Mohammed & Abouhawwash, Mohamed. (2023). A new proximity metric based on optimality conditions for single and multi-objective optimization: Method and validation. Expert Systems with Applications. 241. 122677. 10.1016/j.eswa.2023.122677.
- [86] Kumar, A. P., Fatma, G., Sarwar, S., & Punithaasree, K. S. (2025, January). Adaptive Learning Systems for English Language Education based on AI-Driven System. In *2025 International Conference on Intelligent Systems and Computational Networks (ICISCN)* (pp. 1-5). IEEE.
- [87] Wang, Shuang & Hussien, Ganna & Kumar, Sumit & Alshourbaji, Ibrahim & A.Hashim, Fatma. (2023). A modified Smell Agent Optimization for Global Optimization and Industrial Engineering Design Problems. Korean Journal of Computational Design and Engineering. 10. 10.1093/jcde/qwado62.
- [88] Elkady, G., Sayed, A., Priya, S., Nagarjuna, B., Haralayya, B., & Aarif, M. (2024). An Empirical Investigation into the Role of Industry 4.0 Tools in Realizing Sustainable Development Goals with Reference to Fast Moving Consumer Foods Industry. In *Advanced Technologies for Realizing Sustainable Development Goals: 5G, AI, Big Data, Blockchain, and Industry 4.0 Application* (pp. 193-203). Bentham Science Publishers.
- [89] Al-Shourbaji, I., & Duraibi, S. (2023). IWQP4Net: An Efficient Convolution Neural Network for Irrigation Water Quality Prediction. *Water*, 15(9), 1657. https://doi.org/10.3390/w15091657
- [90] Kaur, C., Al Ansari, M. S., Rana, N., Haralayya, B., Rajkumari, Y., & Gayathri, K. C. (2024). A Study Analyzing the Major Determinants of Implementing Internet of Things (IoT) Tools in Delivering Better Healthcare Services Using Regression Analysis. In *Advanced Technologies for Realizing Sustainable Development Goals: 5G, AI, Big Data, Blockchain, and Industry 4.0 Application* (pp. 270-282). Bentham Science Publishers.
- [91] Alshourbaji, Ibrahim & Jabbari, Abdoh & Rizwan, Shaik & Mehanawi, Mostafa & Mansur, Phiros & Abdalraheem, Mohammed. (2025). An Improved Ant Colony Optimization to Uncover Customer Characteristics for Churn Prediction. Computational Journal of Mathematical and Statistical Sciences. 4. 17-40. 10.21608/cjmss.2024.298501.1059.
- [92] Alijoyo, F. A., Prabha, B., Aarif, M., Fatma, G., & Rao, V. S. (2024, July). Blockchain-Based Secure Data Sharing Algorithms for Cognitive Decision Management. In 2024 International Conference on Electrical, Computer and Energy Technologies (ICECET (pp. 1-6). IEEE.

2025, 10(59s) e-ISSN: 2468-4376

https://www.jisem-journal.com/

- [93] Abouhawwash, Mohamed & Jameel, Mohammed & Askar, S.S.. (2023). Multi-Criteria Decision Making Model for Analysis Hydrogen Production for Economic Feasibility and Sustainable Energy. Multicriteria Algorithms with Applications. 1. 31-41. 10.61356/j.mawa.2023.16161.
- [94] Elkady, G., Sayed, A., Mukherjee, R., Lavanya, D., Banerjee, D., & Aarif, M. (2024). A Critical Investigation into the Impact of Big Data in the Food Supply Chain for Realizing Sustainable Development Goals in Emerging Economies. In Advanced Technologies for Realizing Sustainable Development Goals: 5G, AI, Big Data, Blockchain, and Industry 4.0 Application (pp. 204-214). Bentham Science Publishers.
- [95] Jameel, Mohammed & Abouhawwash, Mohamed. (2023). A Reference Point-Based Evolutionary Algorithm Solves Multi and Many-Objective Optimization Problems: Method and Validation. Computational Intelligence and Neuroscience. 2023. 4387053. 10.1155/2023/4387053.
- [96] Praveena, K., Misba, M., Kaur, C., Al Ansari, M. S., Vuyyuru, V. A., & Muthuperumal, S. (2024, July). Hybrid MLP-GRU Federated Learning Framework for Industrial Predictive Maintenance. In 2024 Third International Conference on Electrical, Electronics, Information and Communication Technologies (ICEEICT) (pp. 1-8). IEEE.
- [97] Alshourbaji, Ibrahim & Kachare, Pramod & Fadlelseed, Sajid & Jabbari, Abdoh & Hussien, Ganna & AL Saqqar, Faisal & Abualigah, Laith & Alameen, Abdalla. (2023). Artificial Ecosystem-Based Optimization with Dwarf Mongoose Optimization for Feature Selection and Global Optimization Problems. International Journal of Computational Intelligence Systems. 16. 10.1007/s44196-023-00279-6.
- [98] Orosoo, M., Rajkumari, Y., Ramesh, K., Fatma, G., Nagabhaskar, M., Gopi, A., & Rengarajan, M. (2024). Enhancing English Learning Environments Through Real-Time Emotion Detection and Sentiment Analysis. *International Journal of Advanced Computer Science & Applications*, 15(7).
- [99] D. V. Puri et al., "LEADNet: Detection of Alzheimer's Disease Using Spatiotemporal EEG Analysis and Low-Complexity CNN," in IEEE Access, vol. 12, pp. 113888-113897, 2024, doi: 10.1109/ACCESS.2024.3435768.
- [100] Tripathi, M. A., Goswami, I., Haralayya, B., Roja, M. P., Aarif, M., & Kumar, D. (2024). The Role of Big Data Analytics as a Critical Roadmap for Realizing Green Innovation and Competitive Edge and Ecological Performance for Realizing Sustainable Goals. In *Advanced Technologies for Realizing Sustainable Development Goals:* 5G, AI, Big Data, Blockchain, and Industry 4.0 Application (pp. 260-269). Bentham Science Publishers.
- [101] U.Hayati. (2020). *information system's implementation and its impact on university organization performance in west java*. Indonisia: university of Padjadjaran,.
- [102] V. (2008). "Reflections on the 2008 AECT Definitions of the Field". . Springer Science and Business Media LLC.
- [103] Valacich J. and Schneider C. (2010). information systems today. New Jersey, prentice-hall,.
- [104] Venkatesh, V., Thong, J. Y., & Xu, X. (2016). Unified theory of acceptance and use of technology: A synthesis and the road ahead. Journal of the Association for Information Systems, 17(5), 328–376.
- [105] Veronica Diaz, I. R. (2020). use of ICT tools from the perspective of Chilean Universities.
- [106] Vladimir ZWASS. (2020)., Britannica.com.
- [107] Vladimir ZWASS. (2022). information systems,. Retrieved from Britannica.com,
- [108] What are accounting programs, their importance, the best among them, advantages and disadvantages. (2024).
- [109] www.unesco.org. (n.d.). www.unesco.org, retrieved 29-9-2022.