



## RESEARCH ARTICLE

# The Impact of Cybersecurity on Organizing Government Conferences through Information Technology Infrastructure as an Intermediary Variable in the State of Qatar

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ARTICLE INFO	ABSTRACT
Received: Apr 24, 2024 Accepted: Aug 1, 2024	The study aimed to demonstrate the impact of cybersecurity in its dimensions (confidentiality, integrity of information, availability of information, privacy, enhancement) on the organization of government conferences in its dimensions (planning the human and material resources of the conference, the organizational structure of the conference, monitoring and follow-up the conference work) through the information technology infrastructure in the State of Qatar. The study population consists of official government conferences in the State of Qatar and the descriptive analytical approach was followed. The questionnaire was adopted as a tool for collecting study data. It was adopted as a statistically unknown population, as the size of the study sample was (384) individuals. The Statistical Package for the Social Sciences program was used (SPSS) was used to analyse the study data and reach the results. The study reached a set of results, the most prominent of which are: the Qatari government is able to prove the actions of threatening or leaking information by the employees in charge of the conferences and to regain its efficiency in human resources planning. The most important recommendations of the study are: the necessity of protecting the electronic infrastructure of conferences by using user protection programs to protect it from hacking attacks and providing data confidentiality.
<b>Keywords</b>	
Cybersecurity Organizing Government Conferences Information Technology Infrastructure The State of Qatar.	
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## INTRODUCTION

Cybersecurity is a field that protects all electronic and digital device programs from attempts to hack it, damage its programs, stealing its confidential information, changing it, or even seizing it and selling it, by providing layers (walls) to protect it (Wankhede and Vinodh, 2022). Cybersecurity also refers to a set of legal and regulatory frameworks, organizational structures, and procedures followed to confront electronic dangers, in addition to the technical and technological means and tools used in all sectors, which aim to protect the national cyberspace (Rajvanshi et al., 2022). Moreover, the importance of cybersecurity lies in giving advice that contributes to developing awareness of cybersecurity to achieve a high degree of security and protection in a digital world that is easy to penetrate, and working to achieve cybersecurity and preserve the rights resulting from the legitimate use of computers and information networks (Nasser, 2022).

It has been shown that planning human and material resources is the basis of organizing conferences, which makes them capable of achieving competition and success through managing and investing in human capital. The management of human and material resources is considered a systematic management that enables leaders and managers in conferences who have experience and scientific management to develop in government conferences (Al-Salayma, 2022). The organizational structure also determines how information flows between levels within government conferences. This works to organize government conferences. For example, in a centralized structure, decisions flow from top to bottom, while in a decentralized structure, decision-making authority is distributed among the various levels of government conferences. Furthermore, having an organizational structure allows companies to remain efficient and focused (Kenton, 2024). Finally, to organize conferences, monitoring and follow-up must be done. Through this process, government conferences collect and analyse data, and determine whether the conference has achieved its goals. The monitoring and follow-up process begins immediately and extends throughout the duration of the conference to demonstrate the achievement of the desired goals of the conference (Olszynski, 2020).

It has also been shown that information technology infrastructure (ITIF) comes from the need to obtain information technology that can cope with rapid technological changes, since information technology infrastructure is very essential in transferring knowledge. Moreover, the Qatari government's possession of an immutable infrastructure will hinder the performance of the Qatari government activities and increases costs and the inability to meet its needs (Al-Sabaawi & Alyouzbaky, 2022). It was also shown that the information technology infrastructure in the Qatari government refers to a common set of technical and human resources for information technology in the Qatari government that provides a basis for the use of multiple information technology applications. The technical resources for information technology infrastructure refer to (computers, networks, laptops, systems operation, software, electronic communication networks) (Sayed et al., 2024).

Through the researcher's observation of the broad role of information technology infrastructure, he found the lack of the Qatari government's ability to plan human and material resources, the shortage in providing policies and strategies to uncover human and material resources for government conferences, and the absence of any programs for planning, attracting and appointing talented people. It was also shown that government conferences significantly lack the use of organizational structures in all their forms and sizes. The successful organizational structure determines the job of each employee and how it fits into the general system. It has been shown that not specifying the organizational structure of government conferences leads to an inability to achieve their goals. It has also been shown that the problem of studying government conferences appears through a loss of follow-up and monitoring, where follow-up takes place after the approval decision is taken and once the conference activity is implemented. Furthermore, follow-up is also necessary to determine the results of the government conference activities. The problem of the study can be summarized by the following main question:

**◀ What is the impact of cybersecurity in its dimensions (confidentiality, integrity of information, availability of information, privacy, enhancement) on the organization of government conferences in its dimensions (planning the human and material resources of the conference, the organizational structure of the conference, monitoring and follow-up the conference work) through the information technology infrastructure in the State of Qatar?**

The following sub-questions branch out from the main question

1. What is the level of cybersecurity in its dimensions (confidentiality, integrity of information, availability of information, privacy, enhancement) at conferences in the State of Qatar?
2. What is the level of organization of government conferences in the State of Qatar?

3. What is the level of IT infrastructure for conferences in the State of Qatar?
4. What is the impact of cybersecurity in its dimensions on the organization of government conferences in its dimensions in the State of Qatar?
5. What is the impact of cybersecurity in its dimensions on the information technology infrastructure in conferences in the State of Qatar?
6. What is the impact of information technology infrastructure on organizing government conferences in all their dimensions in the State of Qatar?
7. What is the impact of cybersecurity on organizing government conferences through the IT infrastructure in the State of Qatar?

### **The Importance of the research**

The importance of the study is crystalized in reformulating the concepts of cybersecurity, organizing government conferences, and information technology infrastructure, in accordance with the latest knowledge, as a result of the deep connection between the variables of the study, as cybersecurity is considered the basic building block for organizing any government conference, and no one can be built a government conference without an information technology infrastructure. Moreover, the study is distinguished by reaching a set of results and recommendations that contribute to assisting decision-makers in the Qatari government, and building national strategies that will raise the level of performance in government conferences in its dimensions (planning the human and material resources of the conference, the organizational structure of the conference, monitoring and follow-up the conference work), It also evaluates cybersecurity in its dimensions (confidentiality, integrity of information, availability of information, privacy, enhancement), and works to help to take necessary measures to reach a successful government conference and achieve the desired goals.

### **Objectives of the research**

The goal of the study is to improve and develop the ability of the Qatari government to organize conferences through cybersecurity with the presence of the information technology infrastructure, through the information technology infrastructure. The study helps in providing data and information to employees in government conferences, through developing and improving the human resources planning process, the organizational structure, monitoring and follow-up processes. It also provides lessons learned from the previous experiences of the Government of Qatar in government conferences. The study aims mainly to demonstrate the impact of cybersecurity on organizing government conferences through the information technology infrastructure in the State of Qatar.

### **The limitations of the research**

The limitations of the current study are as follows:

**Subject limitations:** The subject of the study is limited to the impact of cybersecurity on organizing government conferences through information technology infrastructure as an intermediary variable in the State of Qatar.

**Place limitations:** The study is limited to the State of Qatar.

**Human limitations:** The study is limited to government conference employees (conference director, conference organizing member, communications supervisor or engineer, operator or technician).

**Time limitations:** The study time limits are limited to the academic year 4/2024

## THE THEORETICAL FRAMEWORK AND STUDY HYPOTHESES

### **First: The impact of cybersecurity on organizing government conferences**

The impact of cybersecurity on the organization of government conferences is explained through the following hypothesis.

Cybersecurity has become an essential part of government conferences of all kinds, and government conferences have become a priority in classifying cybersecurity. They have also announced the allocation of special sections for cybersecurity (Al-Sadkhan, 2021). The process of planning human and material resources is also considered one of the most important dimensions for organizing government conferences, through which it can raise their production efficiency and develop human resources efforts. Development helps employees carry out their duties and responsibilities (Abdul Wahab, 2020). It has also been shown that the organizational structure of government conferences is characterized by a coordination mechanism between the various divisions and divisions within the company and the type of decentralization that exists within the company, that is, the extent to which subordinates are part of the decision-making process. There are also many different ways to judge the performance of government conferences. Since the performance of government conferences is the measure by which the success of the conference can be measured, this aspect is of utmost importance to the Qatari government and employees alike (Siddiqui, 2022). It has also been shown that monitoring and follow-up is often an afterthought for employees and workers at government conferences. Moreover, strong monitoring and follow-up programs are enabled by integrated and reliable governance systems and strong management and communication systems, supported by a comprehensive legal framework to reach satisfactory results around conferences (Fitzpatrick & Williams, 2020).

The Al-Hajjaya study (2023) aimed to identify the impact of organizational culture on cybersecurity in e-government. The study concluded that the application of organizational culture in its dimensions and the application of cybersecurity in its dimensions (confidentiality, integrity of information, availability of information, privacy, enhancement) in e-government in the Ministry of Justice Jordan had a high degree of approval. The study also recommended increasing the level of awareness and commitment to information security and cybersecurity. The study of Yisa et al. (2022) entitled: *Adequacy of human and material resources of technical and vocational education and training in Nigeria: A study of government technical colleges in Niger State, Nigeria* reached several results, the most important of which is that some human resources in technical colleges in Niger State are adequate and others are insufficient. Material resources are sufficient, while information and communications technology (ICT) material resources are not sufficient in technical colleges in Niger State. The study recommended that the Ministry of Technical Education should encourage cooperative education. This will improve the practical knowledge of both teachers and students. The Udayanga's (2020) study also showed the impact of the organizational structure on the performance of small and medium enterprises in Sri Lanka. The study reached several results, the most important of which is that the organizational structure has a statistically significant impact on the performance of small and medium enterprises. The study recommended the necessity of working on completing an organizational structure to increase business performance in order to achieve better prosperity for the country.

### **Second: The Impact of cybersecurity on information technology infrastructure**

The impact of cybersecurity on information technology infrastructure is demonstrated through the hypothesis.

Al-Samhan (2020) indicated that the study of cybersecurity has become one of the most important innovations in technological and digital development, as the developed world in all its parts is witnessing great development. Thus, technological studies in the field of information technology infrastructure and digital computing have become the destination of many, and it has also been shown that one of the most important reasons for the importance of studying cyber security is that it works to protect data, networks and electronic systems from attacks and hacks. The phrases “cybersecurity” and “information security” are somewhat synonymous, although they are not the same thing. Information security refers to an organization’s ability to protect the flow of information across all of its departments. On the other hand, cybersecurity refers to the ability to protect a user’s assets and the environment in which he or she operates from intrusion by an external party (Kala, 2023). Information security infrastructure performs outstandingly when properly implemented not only to enhance the internal strength of organizations but also to enhance external competitiveness. Information security infrastructure has also been proven to be the best tool for developing strategic capabilities of organizations to deal with current problems and remain competitive in the industry. Also, applying the information security infrastructure model always provides solutions for organizations (Hammad, 2022).

Kala's (2023) study pointed out a major problem known as cybercrime, which affects the majority of countries around the world at present and will continue to do so in the coming years. The study reached several results, the most important of which is that cybercrimes can only exist in societies that do not have any laws or where the necessary government institutions are either incompetent or insufficient in implementing the laws on the books. The study recommended that those charged with enforcing applicable laws, such as law enforcement officials and other stakeholders should be strongly encouraged to observe the highest ethical standards. Hammad’s (2022) study also showed the role of knowledge management infrastructure (culture, technology, structure, human resources) in enhancing organizational excellence (the superiority of the appropriate strategy, the superiority of leadership, the superiority of services, and business results). The study reached a set of results, the most important of which is that there is a correlation and effect relationship between the study variable. The study recommended the need to pay more attention to aspects of infrastructure for the purpose of consolidating institutional excellence. Also Al-Samhan’s (2020) study indicated knowledge of the requirements for achieving cybersecurity for administrative information systems at King Saud University. The study concluded that there are security policies for administrative information systems at the university and cybersecurity requirements are applied to manage login identities and permissions. The study recommended encouraging cybersecurity research and studies in master’s theses and PhD dissertations.

### **Third: The impact of information technology infrastructure on organizing government conferences**

The impact of information technology infrastructure on organizing government conferences is explained through the following hypothesis.

Khawaldeh (2020) indicated that information technology infrastructure is a process that has gained great awareness in strategic human resources management as a means of enhancing performance and obtaining an advantage and effectiveness for overall human resources management in conferences. It has also been shown that the set of integrated human resources activities that support the organization’s strategy such as government conferences maintains information technology infrastructure. It has also been pointed out that the developments and changes brought about by information technology in the processes of organizing government conferences in all their dimensions and other management processes have contributed to progress in raising performance and keeping pace with technological events that would process data and information, deal with



computers, and obtain information quickly and with high efficiency in order to reach successful government conferences (Al-Saraji, 2023).

There is another study by Al-Saraji's (2023) entitled *The reality of using information technology in human resources management in the libraries of the University of Science and Technology: an exploratory study*. This study reached several results, the most important of which is that the degree of the reality of the information technology infrastructure in human resources management in the libraries of the University of Science and Technology is very high. The study recommended that the University of Science and Technology should continue to modernize and develop the information technology infrastructure. The Khawaldeh's (2020) study also explored the impact of knowledge management on human resources management. The study reached several results, the most important of which is that knowledge management greatly affects the performance factors of human resources management according to the ACHIEVE model. Based on the ACHIEVE model, the study recommended the necessity of working to create an environment in which information is easily exchanged and used among employees. Enhancing employees' knowledge may support and improve their performance.

#### **Fourth: The impact of cybersecurity on organizing government conferences through information technology infrastructure**

The impact of cybersecurity on the organization of government conferences through information technology infrastructure is demonstrated through the following hypothesis.

Abdumalikov (2022) pointed out that there are a number of components of cybersecurity, namely network security, which is a way to protect a company's network from malicious threats and attacks. In application security, continuous testing and updates are required to ensure the security of the software remote access to the company network is protected by endpoint security. Data security protects company and customer information within networks and applications by enabling information technology infrastructure. He also explained that cybersecurity has several advantages through which it can work on organizing conferences, as it works to protect personal data. It also adheres to the laws of government conferences, and helps educate and train the workforce and maintain trust and credibility. Moreover, it works to support the information technology team (Sexena, 2024).

Prathyush and Kumar (2022) pointed out the challenges that cybersecurity faces while developing the latest technologies. The study reached several results, the most important of which is that new cyber threats JA;G that is an everyday challenge to organizations that are not only related to securing the infrastructure but also how to request new platforms and intelligence information to confront cybercrimes. The study recommended that we should make every effort to reduce them in order to have a safe and secure future in cyberspace. Abumalikov's (2022) study also showed the importance of cybersecurity in small businesses by explaining a number of threats and attacks. The study reached several results, the most important of which is that awareness of current cyber threats and attacks gives companies the ability to create superior security to mitigate the risks of being attacked.

## **DESIGNING THE RESEARCH METHODOLOGY**

**Study approach:** The descriptive analytical approach was used, where the study variables were described in the theoretical framework and the study tool with the aim of providing an accurate and clear description of the study variables. The analytical approach was highlighted by analyzing the study data using the statistical package program (SPSS).

**Study population and sample:** The study population consisted of official government conferences in the State of Qatar, and the study sample consisted of (conference director, conference organizing member, supervisor or engineer, operator or technician), and it was adopted as a statistically unknown population, as the size of the study sample was (384) individuals. The study data was collected through primary sources, represented by the study tool, and secondary sources, represented by research, studies, books, publications, and manuscripts published on databases from reliable sources, as the descriptive analytical approach is characterized by accuracy and clarity in describing the relationships between the study variables.

**Reliability of the tool:** The reliability coefficient was calculated through Cronbach alpha values, for the internal consistency of the axes of the study tool. Table (1) shows the values of the reliability coefficients for the areas of the study tool. It also shows the reliability coefficient for the study scales. The alpha values ranged between (0.677) as the lowest value and (0.904) as the highest value. This shows that all alpha values have exceeded the minimum percentage that is acceptable for the purposes of statistical analysis, as alpha equal to or greater than (0.60) is considered acceptable in previous studies. The total value is (0.974), which is a high value.

**Table 1: Cronbach alpha reliability coefficient values for the study scales**

Variable	number of items	Cronbach's alpha coefficient
Confidentiality	5	0.677
Integrity of information	5	0.686
Availability of information	5	0.829
Privacy	4	0.684
Enhancemnt	4	0.777
Independent variable: Cybersecurity	23	0.927
Planning the conference human and material resources	8	0.853
Organizational structure of the conference	8	0.869
Monitoring and follow-up the conference work	8	0.827
Dependent variable: Organizing conferences	24	0.940
Mediator variable: Information technology infrastructure	13	0.904
Total	60	0.974

## RESEARCH RESULTS

### Results of Means and Standard deviations

The Study Questions Were answered as Follows:

### Results of the first question

**Table 2: Results of arithmetic means and standard deviations for cybersecurity (independent variable)**

Rank	Item	Arithmetic means	Standard deviation	Materiality
1	Availability of information	3.78	0.516	High
2	Confidentiality	3.73	0.567	High
3	Privacy	3.69	0.565	High
4	Enhancement	3.69	0.624	High
5	Integrity of Information	3.66	0.667	Medium
Total		3.71	0.509	High

It is noted from Table (2) that cybersecurity received an average score, with the arithmetic mean reaching (3.71). The dimension of the "availability of information" came in the first place with an arithmetic mean of (3.78). The dimension of "Confidentiality" came in second place, with a arithmetic mean of (3.73), and the dimension of "Privacy" came in the third place, with an arithmetic mean of (3.69). In the fourth place came the dimension of "Enhancement", with an arithmetic mean of (3.69). In fifth place came the dimension of "Integrity of Information", with an arithmetic mean of (3.66). All of them have a high degree, except for the integrity of information dimension, which has a medium degree.

### Results of the second question

**Table 3: Results of arithmetic means and standard deviations for organizing conferences (dependent variable)**

Rank	Item	Arithmetic mean	Standard deviation	Materiality
1	Monitoring and follow-up the conference work	3.83	0.546	High
2	Planning the conference human and material resources	3.64	0.598	Medium
3	Organizational structure of the conference	3.64	0.608	Medium
Total		3.70	0.542	High

It is noted from Table (3) that organizing conferences received a high score, with the arithmetic mean reaching (3.70) The dimension "monitoring and follow-up the conference work" ranked first with a arithmetic mean (3.83), and the dimension "planning the human and material resources of the conference" came in second place, with a arithmetic mean (3.64) The dimension "organizational structure of the conference" came in the third place and with a arithmetical mean (3.64). All of these dimensions came in a medium degree except the dimension "monitoring and follow-up the conference work" came with a high degree.



### Results of the third question

**Table 4: Arithmetic means and standard deviations for information technology infrastructure items**

Item	Arithmetic Mean	Standard Deviation	Materiality
Information technology infrastructure	3.76	0.538	High
Total	3.76	0.538	High

Table (4) shows that the intermediary variable (information technology infrastructure) received a high score, and the arithmetic mean reached (3.76).

### Results of the fourth question

**First: H0.1 The first main hypothesis: There is no statistically significant effect at a significant level ( $\alpha \leq 0.05$ ) of cybersecurity represented by its dimensions (confidentiality, integrity of information, availability of information, privacy, enhancement) on organizing conferences in its dimensions (planning the human and material resources of the conference, the organizational structure of the conference, monitoring and follow-up of the conference work) from the point of view of the study sample in the State of Qatar.**

The following table represents the results of the analysis of the first main hypothesis (H0.1).

A simple regression was tested to identify the relationship between the sub-dimensions of cybersecurity in organizing conferences from the point of view of the study sample.

**Table 5: Results of analysis of the first main hypothesis (H0.1) and sub-hypotheses**

Dimensions	Hypothesis	R	R <sup>2</sup>	Sig F	Result
Main	H01	0.961	92.4%	0.000	Rejected
Confidentiality	H01-1	0.719	51.7%	0.000	Rejected
Information integrity	H01-2	0.825	68.1%	0.000	Rejected
Availability of information	H01-3	0.911	83%	0.000	Rejected
Privacy	H01-4	0.790	62.3%	0.000	Rejected
Enhancement	H01-5	0.848	72%	0.000	Rejected

### Results of the fifth question

**Second: H0.2 The second main hypothesis: There is no statistically significant effect at a significant level ( $\alpha \leq 0.05$ ) for cybersecurity represented by its dimensions (confidentiality, integrity of information, availability of information, privacy, enhancement) on the information technology infrastructure from the point of view of the study sample in the State of Qatar.**

Table (6) shows the test of the second main hypothesis.

A simple regression was tested to identify the relationship between the sub-dimensions of cybersecurity in the IT infrastructure from the point of view of the study sample.

**Table 6: Results of analysis of the second main hypothesis (H0.2) and sub-hypotheses**

Dimensions	Hypothesis	R	R <sup>2</sup>	Sig F	Result
Main	H02	0.919	0.845	0.000	Rejected
Confidentiality	H01-1	0.675	0.455	0.000	Rejected
Information integrity	H01-2	0.819	0.671	0.000	Rejected
Availability of information	H01-3	0.814	0.662	0.000	Rejected
Privacy	H01-4	0.815	0.665	0.000	Rejected
Enhancement	H01-5	0.822	0.676	0.000	Rejected

### Results of the sixth question

**Third: H0.3 The Third Main Hypothesis: There is no statistically significant effect at the level of significance ( $\alpha \leq 0.05$ ) of the information technology infrastructure in organizing conferences in its dimensions (planning the human and material resources of the conference, the organizational structure of the conference, monitoring and follow-up the conference work) in the State of Qatar.**

A simple regression was tested to identify the relationship between the information technology infrastructure in organizing conferences and its dimensions combined from the point of view of the study sample. Table (7) is illustrative.

**Table 7: Results of analysis of the third main hypothesis (H03) and sub-hypotheses**

Dimensions	Hypothesis	R	R <sup>2</sup>	Sig F	Result
Information technology infrastructure	H03	0.914	0.836	0.000	Rejected

### Results of the seventh question

**Fourth: H0.4 The fourth main hypothesis: There is no statistically significant effect at the significance level ( $\alpha \leq 0.05$ ) of cybersecurity in its dimensions (confidentiality, integrity of information, availability of information, privacy, enhancement) on organizing conferences in its dimensions (planning the human and material resources of the conference, The organizational structure of the conference, monitoring and follow-up of the conference work) through the information technology infrastructure as an intermediary variable in the State of Qatar.**

A simple regression (Multi Regression) was tested to identify the relationship between (confidentiality, integrity of information, availability of information, privacy, enhancement) in organizing conferences and its dimensions (planning the human and material resources of the

conference, the organizational structure of the conference, monitoring and follow-up the conference work) through the technology information of infrastructure as an intermediary variable in a country. Table (8) illustrates this.

**Table 8: Results of analysis of the Fourth main hypothesis (H0.4) and sub-hypotheses**

Dimensions	Hypothesis	R	R <sup>2</sup>	Sig F	Result
Confidentiality	H04-1	0.925	0.855	0.000	Rejected
Information integrity	H04-2	0.924	0.854	0.000	Rejected
Availability of information	H04-3	0.958	0.918	0.000	Rejected
Privacy	H01-4	0.918	0.842	0.000	Rejected
Rnhancement	H04-5	0.930	0.865	0.000	Rejected

The Results in Table (8 ) showed

H04-1 : The value of the correlation coefficient (R) between the two variables (confidentiality with the information technology infrastructure as a mediating variable and the organization of conferences with all its dimensions) was 0.925, and the relationship between the two variables was direct; This explains that the confidentiality dimension positively affects the dependent variable “organizing conferences in all its dimensions” with the information technology infrastructure as a mediating variable, and the value of the coefficient of determination (R<sup>2</sup>) was (0.855), meaning (85.5%) of the change in cybersecurity and organizing conferences in its dimensions. Combined.

H04-2: The value of the correlation coefficient (R) between the two variables (information integrity with the information technology infrastructure as a mediating variable and the organization of conferences with its combined dimensions) was 0.924, and the relationship between the two variables was direct; This explains that the information safety dimension positively affects the dependent variable “organizing conferences in all its dimensions” with the information technology infrastructure as a mediating variable, and the value of the coefficient of determination (R<sup>2</sup>) was (0.854), meaning (85.4%) of the change in cybersecurity and organizing conferences in its dimensions. Combined.

H04-3: The value of the correlation coefficient (R) between the two variables (the availability of information with the information technology infrastructure as a mediating variable and the organization of conferences with its combined dimensions) was 0.958, and the relationship between the two variables was direct; This explains that the availability of information positively affects the dependent variable “organizing conferences in all its dimensions” with the information technology infrastructure as a mediating variable, and the value of the coefficient of determination (R<sup>2</sup>) was (0.918), meaning (91.8%) of the change in cybersecurity and organizing conferences. In its combined dimensions.

H01-4: The value of the correlation coefficient (R) between the two variables (privacy with the information technology infrastructure as a mediating variable and the organization of conferences with its combined dimensions) was 0.918, and the relationship between the two variables was direct; This explains that the privacy dimension positively affects the dependent variable “organizing conferences in all its dimensions” with the information technology infrastructure as a mediating variable, and the value of the coefficient of determination (R<sup>2</sup>) was (0.842), meaning (84.2%) of the change in cybersecurity and organizing conferences in its dimensions. Combined.

H04-5: The value of the correlation coefficient (R) between the two variables (enhancing the presence of the information technology infrastructure as a mediating variable and organizing conferences with its combined dimensions) was 0.930, and the relationship between the two variables was direct; This explains that the reinforcement dimension positively affects the dependent variable “organizing conferences in all its dimensions” with the information technology infrastructure as a mediating variable, and the value of the coefficient of determination ( $R^2$ ) was (0.865), meaning (86.5%) of the change in cybersecurity and organizing conferences in its dimensions. Combined

## DISCUSSION

The results of the statistical analysis showed that the independent variable (cybersecurity) obtained a high degree materiality, as the arithmetic means reached (3.71). This indicates that the Qatari government pays sufficient attention to cybersecurity. This is shown by the employees’ reservation of the confidentiality of information at government conferences, through continuous supervision and control of information, considering the confidentiality of employee data in government conferences as one of the conference’s most important priorities, and the Qatari government’s keenness to activate punitive measures for employees who violate cybersecurity procedures and policies. This is consistent with a study of (Al-Hajaya, 2023), which found that the application of organizational culture in its dimensions and the application of cybersecurity in its dimensions (confidentiality, integrity of information, availability of information, privacy, enhancement) in e-government in the Ministry of Justice in Jordan had a high degree of approval. It differs with the study (Yisa et al, 2022), which concluded that some human resources in technical colleges in Niger State are adequate and others are insufficient. The material resources are sufficient, while the information and communication technology (ICT) material resources are not sufficient in the technical colleges in Niger State. The difference is due to the study population, as the study population affects the answers of the study sample, which is reflected in the results of the statistical analysis.

The results of the statistical analysis showed that the dependent variable (organizing conferences) obtained a high degree of materiality, as the arithmetic means reached (3.70). This indicates that the Qatari government has sufficient interest in organizing conferences. This is demonstrated by achieving the goals of government conferences through a planning process of the human and material resources. It provides databases with all information related to its human and material resources, as the Qatari government works to plan human resources efficiently. Also, it involves employees in government conferences in solving problems. This is consistent with the study (Al-Saraji, 2023), which found that the developments and changes brought about by information technology in The processes of organizing government conferences, in all their dimensions, and other management processes have contributed to progress in raising performance and keeping pace with technological events that would process data and information, deal with computers, and obtain information quickly and with high efficiency to reach successful government conferences. This differs from the study (Fitzpatrick & Williams, 2020), which concluded that monitoring and follow-up is often an afterthought for employees and workers at government conferences. Moreover, strong monitoring and follow-up programs are enabled through integrated and reliable governance systems and strong management and communications systems, supported by a comprehensive legal framework to reach satisfactory results regarding conferences.

The results of the statistical analysis showed that the intermediary variable (information technology infrastructure) obtained a high degree of materiality, as the arithmetic mean reached (3.76). This indicates that the Qatari government has sufficient interest in information technology infrastructure. This is shown by the Qatari government’s careful estimate of the future risks of government conferences, choice of a clear basis for analysing and processing data and information in government

conferences, use of new training methods to develop human competencies in government conferences, and provision of modern and effective networks to serve conference systems, in addition to the ability to analyse and classify data and extract private information for government conferences. This is consistent with the study (Abumalikov, 2022), which concluded that awareness of current cyber threats and attacks gives companies the possibility of creating superior security to mitigate the risks of being attacked. It differs with the study (Kala, 2023), which recommended the need to encourage those charged with enforcing applicable laws, like law enforcement officers and other stakeholders, to strongly adhere to the highest ethical standards. The difference is also due to the different study populations, as the study population affects the answers of the study sample, which is reflected in the results of the statistical analysis.

The coefficient of determination was ( $R^2=0.924$ ), meaning that cybersecurity as an independent variable with its dimensions explains (92.4%) of the variance in the dependent variable, which is organizing conferences with its dimensions combined.

## RECOMMENDATIONS

Based on the results obtained, the study recommended the need to work on the following:

1. The necessity of protecting the electronic infrastructure of conferences by using user protection programs to protect it from hacking attacks, providing data confidentiality and not accessing data except through authorized persons, and taking security measures to reduce the recurrence of cyber attacks, by involving employees in charge of government conferences in training courses specialized in cybersecurity.
2. Paying attention to the maintenance of information systems for government conferences and using information backups to ensure their operation under emergency circumstances, and to recover data in the event of a cyber breach, by involving the employees in charge of government conferences in it by involving them in applied workshops under the supervision of specialists in the field of security. Cyber training, with room to apply what has been trained on in their work sites.
3. Protecting the information resources of government conferences by having the Qatari government verify the identity of the conference workers before handing over any documents pertaining to them, and taking appropriate measures to preserve the privacy of its websites, by involving the employees in charge of the government conferences in external courses related to cybersecurity policies.
4. Clearly specify the sources of obtaining human and material resources at government conferences and focus on objective evaluation of employee performance.
5. The organizational structure in government conferences is flexible in the direction of the changes it needs, and work is directed based on orders and instructions from the upper to lower levels. A specific job title for each employee determines the specializations required of him. All relationships in the conferences are based on the official hierarchy, and employees are distributed among different departments based on their specializations. This is done through administrative empowerment of the employees responsible for organizing conferences.

## CONCLUSION

The study aimed to demonstrate the impact of cybersecurity on organizing government conferences through information technology infrastructure as an intermediary variable in the State of Qatar, where cybersecurity received a high degree of materiality, with the arithmetic mean (3.71). Organizing government conferences obtained a high degree of materiality, with arithmetic mean

(3.70). The information technology infrastructure received a high degree of materiality, with the arithmetic mean (3.76). The coefficient of determination reached ( $R^2=0.924$ ). That is cybersecurity as an independent variable with its dimensions explains (92.4%) of the variance in the dependent variable, which is organizing conferences in their combined dimensions,” and the value of the coefficient of determination ( $R^2$ ) reached (83%) of the variable of cybersecurity and organizing conferences in their combined dimensions.

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