



# Business Environment and Their Readiness to Implement the Teleworking: A Field Study on the Application of the Egyptian Private Commercial Banks

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## Abstract

The study aimed to determine the readiness of the business environment in the commercial banks of the Arab Republic of Egypt, to apply the method of teleworking, where a range of dimensions affecting the application of teleworking was studied, which is: information and communication technology, training, organizational culture, support to senior management, staff skills, and nature of jobs (flexibility). To achieve the goal of the study, the researcher followed the quantitative approach method through which the researcher relied on the questionnaire as tools to collect data from the study sample, which consisted of 322 workers at the private commercial banks of the study in Alexandria, and collected data and analysis by the statistical analysis program (SPSS version, 25). The researcher reached several important results, including the following: 1) There is an awareness among the vocabulary of the study sample of the readiness of the business environment to apply the teleworking to the private commercial banks operating in the governorate of Alexandria under study. 2) There is an awareness among the vocabulary of the study sample to adopt the method of teleworking at the private commercial banks operating in the governorate of Alexandria under study. 3) There is a positive effect on the dimensions (communication and information technology, organizational culture, employee skills, nature of jobs), while dimensions (training, support to senior management) negatively affect the application of teleworking in private commercial banks. The study also recommended the need to increase support for senior management in private commercial banks for the implementation of teleworking. In addition, providing the necessary training for managers and workers in banks, and at the end of the study, the researcher presented a guide for private commercial banks to implement the recommendations of the study.

## Subject Areas

Information Technologies

## Keywords

Communication and Information Technology, Organizational Culture, Employee Skills, Flexibility and Commercial Banks

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## 1. Introduction

After the outbreak of the Coronavirus around the world, teleworking has become the ideal means of protecting and protecting employees and maintaining business continuity as employees can perform their daily work assignments fully while they are at home. Millions of companies around the world did not find any better than teleworking (working from home) as a way to preserve their future, the productivity of their employees with the continued spread of the Corona virus and many countries impose social isolation measures and complete embargoes that extend to a lengthy period [1]. The amazing development in the information and communication technology that the world is witnessing has given a strong impetus to teleworking and the direct effects of the Digital Revolution on the human lifestyle in all economic, social and cultural aspects. This revolution has led to economic development being linked largely to the extent of the ability of countries to cope these transformations and their control with the aim of exploiting the available and renewable capabilities [2]. There is no doubt in the researcher that advanced technologies in general and information and communication technology in particular have a great and beneficial impact on both the economic environment, competitiveness, and the general performance of business organizations [3]. With the growing digital technology, there are no restrictions on time, place or workplace as well as a global workforce and the need for a balance between work and family life, all of which led to a change in the nature of the workplace today from the manufacturing/production economy to the service economy. Today, we are living in an economy of knowledge and digital information [4].

It is not surprising that the work environment in the twenty-first century has transformed the concept of the workplace into a work culture anywhere and at any time. Knowledge workers increased and many employees gained the ability to work anytime and anywhere. Teleworking (TW), part-time, or home-based work are the latest trends adopted by many countries towards providing job opportunities in many business sectors [5].

Teleworking is a flexible work arrangement characterized by managing work from an alternate location, usually a home or workplace location. Teleworking has increased worldwide over the past few decades. Initially, it was adopted in the mid-seventies in the United States and Europe and became more widespread

in the nineties of the twentieth century [2]. This trend has helped to spread and support the tremendous progress of modern technologies and communications and the information technology that communication provides, which represents the infrastructure for many remote job opportunities. However, the method of teleworking from the researcher's point of view is not common in Egypt so far.

Teleworking has attracted a great deal of interest from academics and practitioners due to its multifaceted implications for individuals, organizations and society for work anywhere and anytime. Teleworking has been suggested as a treatment for a variety of organizational and social troubles, including: helping organizations reduce real estate costs, responding to employee needs for work, as well as the balance between work and family life [4]. Teleworking is one of the practices that the Director of Human Resources Management can explore by extending the benefits to attracting and retaining highly talented and skilled employees, providing job opportunities for people with disabilities, reducing traffic congestion and air pollution [5].

The general literature on the method of teleworking focused on positive benefits as one of the new methods of work, as it is considered in many organizations as part of the human resources management strategy and is seen as a means to achieve many of the goals of human resources management, as well as financial goals. Teleworking is also seen as an opportunity to save office space, operational costs, turnover, absenteeism, employee morale, job independence, office technology, reduce work-related stress, reduce commuting time, family conflict at work and balance of life Family and Work, Reducing Environmental Pollution [5].

From the perspective of urban planning and development carried out by the Arab Republic of Egypt, and building new cities in most governorates, the logical question that arises here is; will the method of teleworking lead to the urban extension of our societies? In other words, will people who have the option of teleworking move to housing that is not close to the densely populated workplaces? Will the potential housing pattern change due to the teleworking method? In addition, the current expectations in many countries indicate that the teleworking method will become a common method of work in the near future in most countries of the world and all its organizations, especially commercial banks.

Commercial banks of the Arab Republic of Egypt are generally considered a partner of government banks in the development process, and contribute to development and investment, in addition to their dependence on information and communication technology in carrying out their work.

The current study attempted to determine the degree of readiness of the business environment in the private commercial banking sector for the possibility of effective application of teleworking, which is something that needs further research and study.

## **2. Literature Review**

This section examined the relationship between business environment (Infor-

mation technology, training and development, organizational culture, top management support, employee skills and flexibility) and teleworking through some studies that the researcher has addressed on studying this relationship over the years. Literature had been reviewed for previous studies related to the research topic and hypotheses are developed based on the previous studies findings of having significant relationships between the research variables.

Literature had been reviewed for previous studies related to the research topic and hypotheses are developed based on the previous studies findings of having significant relationships between the research variables.

Based on the findings of the previous studies done by (Hambley [1]; Biron [2]; and Collins [3]), the first hypothesis was developed showing a significant relationship between Information and Teleworking. Based on the findings of the previous studies done by (Holtbrügge [4]; Krumm and Hertel [5]; and Collins [3]), the second hypothesis was developed showing a significant relationship between training and teleworking. Based on the findings of the previous studies done by (Holtbrügge [4]; and Collins [3]), the third hypothesis was developed showing a significant relationship between organizational culture and teleworking.

Based on the findings of the previous studies done by (Parumasur [6]), the fourth hypothesis was developed showing a significant relationship between top management support and teleworking. Based on the findings of the previous studies done by (Holtbrügge [4]; and Painter [7]), the fifth hypothesis was developed showing a significant relationship between employee skills and teleworking.

Based on the findings of the previous studies done by (Holtbrügge [4]; and Collins [8]), the fifth hypothesis was developed showing a significant relationship between flexibility and teleworking.

## **2.1. The Relationship between Information and Communication Technology and Teleworking**

This section examined the relationship between information and communication technology and teleworking through some studies that the researcher has addressed on studying this relationship over the years from 2014 to 2017.

The relationship between information technology and teleworking performance was illustrated. The study based on mixed method design (quantitative and qualitative data) from virtual team works in cross-national environment through the quasi-experimental design and analyzed the valid data to check the study hypothesis (the relationship between information technology and teleworking performance). The study findings reached that information technology had significant influence on teleworking [1].

In addition, the influence of information technology on teleworking was explained. The study based on survey design for gathering primary data from business teams and analyzed the valid data using non-linear regression to test the

study hypothesis (the influence of information technology on teleworking). The study found that information technology had significant influence on teleworking [2].

Moreover, the relationship between information technology and teleworking was investigated. The study built upon collecting primary data from three Asian economics (Indonesia, Taiwan in China and Vietnam) through questionnaire design and analyzed the valid data to examine the study hypothesis (the relationship between information technology and teleworking). The results showed that there was positive significant relationship between the relationship between information technology and teleworking.

Based on the previous studies that were illustrated, the researcher can assume the second hypothesis of the study, which is that there is a statistically significant relationship between information technology and teleworking [3].

**H1: There is a significant relationship between information technology and teleworking.**

## **2.2. The Relationship between Training and Teleworking**

This section examined the relationship between training and development and teleworking through some studies that the researcher has addressed on studying this relationship over the years from 2011 to 2017.

The influence of training and development on teleworking was explained. The study based on collecting data from questionnaire method consisted of 36 closed questions from companies that related to trade and services sectors in India through 108 questionnaires distributed and the valid sample data was 49 questionnaire that analyzed to test the study hypothesis (the influence of training and development on teleworking). The study found that training and development were an essential factor for teleworking success [4].

As well as, the impact of training and development on teleworking was examined. A questionnaire design was conducted for gathering data from 380 business teams (134 women and 241 men) and analyzed the valid data to examine the study hypothesis (the impact of training and development on teleworking). The findings showed that there was positive significant relationship between training and development and teleworking [5].

Furthermore, the relationship between training and development and teleworking was investigated. The study built upon collecting primary data from three Asian economics (Indonesia, Taiwan in China and Vietnam) through questionnaire design and analyzed the valid data to examine the study hypothesis (the relationship between training and development and teleworking). The results showed that there was positive significant relationship between training and development and teleworking.

Based on the previous studies that were illustrated, the researcher can assume the first hypothesis of the study, which is that there is a statistically significant relationship between training and development and teleworking [3].

**H2: There is a significant relationship between training and teleworking.**

### 2.3. The Relationship between Organizational Culture and Teleworking

This section examined the relationship between organizational culture and teleworking through some studies that the researcher has addressed on studying this relationship over the years from 2011 to 2017.

The impact of organizational culture on teleworking was examined. A questionnaire design was conducted for gathering data from 380 business teams (134 women and 241 men) and analyzed the valid data to examine the study hypothesis (the impact of organizational culture on teleworking). The findings showed that there was positive significant relationship organizational culture and teleworking [4].

As well as, the relationship between organizational culture and teleworking was explained. The study built upon collecting primary data from three Asian economics (Indonesia, Taiwan in China and Vietnam) through questionnaire design and analyzed the valid data to examine the study hypothesis (the relationship between organizational culture and teleworking). The results showed that there was positive significant relationship between the relationship between organizational culture and teleworking [3].

Based on the previous studies that were illustrated, the researcher can assume the third hypothesis of the study, which is that there is a statistically significant relationship between organizational culture and teleworking.

**H3: There is a significant relationship between organizational culture and teleworking.**

### 2.4. The Relationship between Top Management Support and Teleworking

This section examined the relationship between top management support and teleworking through some studies that the researcher has addressed on studying this relationship over the year 2013.

The relationship between top management support and teleworking was clarified. The study based on collecting primary data from 202 managers through self-questionnaire design and analyzed the valid data to examine the study hypothesis (the relationship between top management support and teleworking) using Factor Analysis and Cronbach's Coefficient Alpha. The results showed that management support had significant impact on teleworking [6].

Based on the previous studies that were illustrated, the researcher can assume the forth hypothesis of the study, which is that there is a statistically significant relationship between management support and teleworking.

**H4: There is a significant relationship between top management support and teleworking.**

### 2.5. The Relationship between Employee Skills and Teleworking

This section examined the relationship between employee skills and teleworking

through some studies that the researcher has addressed on studying this relationship over the year 2013 to 2016.

The relationship between employee skills and teleworking was studied. A questionnaire design was conducted for gathering data from 380 business teams (134 women and 241 men) and analyzed the valid data to examine the study hypothesis (the impact of employee skills on teleworking). The study found that improving employee skills had significant positive impacts on teleworking [4].

Furthermore, the relationship between employee skills and teleworking was examined. The study built upon collecting data from Small-Medium Enterprises (SMEs) and analyzed the valid data to examine the study hypothesis (the relationship between employee skills and teleworking). The results showed that employee skills had positive influence on teleworking as employee skills enhanced virtual teamwork become more effective [7].

Based on the previous studies that were illustrated, the researcher can assume the fifth hypothesis of the study, which is that there is a statistically significant relationship between employee skills and teleworking.

**H5: There is a significant relationship between employee skills and teleworking.**

## **2.6. The Relationship between Nature of Jobs (Flexibility) and Teleworking**

This section examined the relationship between flexibility and teleworking through some studies that the researcher has addressed on studying this relationship over the years from 2011 to 2016.

The relationship between flexibility and teleworking was explained. A questionnaire design was conducted for gathering data from 380 business teams (134 women and 241 men) and analyzed the valid data to examine the study hypothesis (the impact of flexibility on teleworking). The study found that flexibility had significant positive impacts on teleworking [4].

Moreover, the relationship between flexibility and teleworking was illustrated. The study based on mixed method design (quantitative and qualitative data) from virtual team works in cross-national environment through the quasi-experimental design and analyzed the valid data to check the study hypothesis (the relationship between flexibility and teleworking). The study findings reached that flexibility had significant influence on teleworking [8].

Based on the previous studies that were illustrated, the researcher can assume the sixth hypothesis of the study, which is that there is a statistically significant relationship between flexibility and teleworking.

**H6: There is a significant relationship between nature of jobs (flexibility) and teleworking.**

## **3. Research Methodology**

The methodology of the study and its procedural steps are a main axis through which, the application side of the study is accomplished. Moreover, through it



the required field data for conducting the statistical analysis is obtained in order to reach the results that are discussed and interpreted in the light of the study literature related to its subject and thus achieve the goals that seek to achieve.

### **3.1. Data Collection and Sample Selection**

The total number of commercial banks is (36 banks) and the excluded commercial banks (10 banks). Employees of the private commercial banks operating in Alexandria Governorate, which number (26 banks) after excluding the 10 Egyptian government banks, represent the study sample. The three Islamic banks, the Novascotia Bank and the National Bank of Oman, as there are no branches in Alexandria and the Arab Investment Bank and the Arab real estate bank of a special nature. The business environment for private commercial banks is more suitable for application. The researcher studied all commercial banks of Alexandria governorate except the excluded due to their geographical proximity.

The researcher has conducted the study on all commercial banks of Alexandria Governorate (26 banks) for a comprehensive count, 50% of the number of branches.

The researcher used the stratified random sample to select the sample items from each of the managers and employees of the private commercial banks operating in the governorate of Alexandria under study. The researcher determined the sample size using the table [9]. It was found that the total sample for the current study amounts to about 322 items.

The researcher designed the research tool as follows:

The questionnaire was prepared on “the business environment and its readiness to implement the teleworking, as the questionnaire is the main appropriate tool for such a field study to obtain information and data that are being filled out by the respondent”. The design of the questionnaire is 5 Likert scale which measures the six independent variables (technology, training, organizational culture, top management support, employee skills and nature of jobs (flexibility) and the dependent variable (teleworking).

#### **The Validity and Reliability**

The researcher demonstrated the results of the Validity and Reliability analysis which is shown in **Table 1**.

### **3.2. Variables and Measurement**

#### **3.2.1. Dependent Variable**

The dependent variable for this study is teleworking.

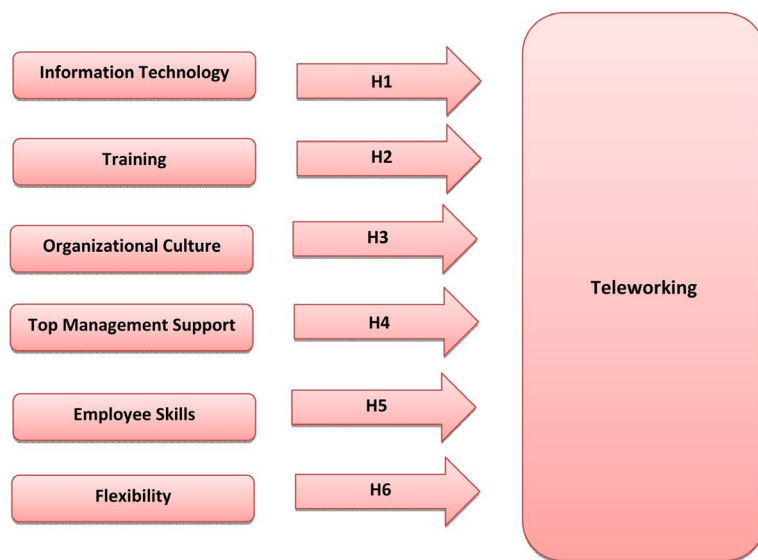
#### **3.2.2. Independent Variable**

There are six independent variables that will be measured. These are information technology, training, organizational culture, top management support, employee skills and nature of jobs (flexibility). **Figure 1** shows the research framework.



**Table 1.** Validity and reliability analysis.

Variables	KMO	AVE	Cronbach's Alpha	Items	Factors loading
technology	0.797	51.961	0.766	Item 2	0.508
				Item 3	0.560
				Item 6	0.426
				Item 7	0.562
				Item 8	0.542
training	0.671	62.817	0.703	Item 1	0.645
				Item 2	0.591
				Item 3	0.648
organizational culture	0.667	71.308	0.798	Item 1	0.720
				Item 2	0.801
				Item 3	0.618
top management support	0.796	52.394	0.814	Item 1	0.504
				Item 2	0.479
				Item 3	0.426
				Item 4	0.513
				Item 5	0.636
				Item 6	0.586
employee skills	0.700	52.940	0.703	Item 2	0.524
				Item 3	0.647
				Item 4	0.486
				Item 6	0.428
flexibility	0.824	61.457	0.842	Item 1	0.713
				Item 2	0.675
				Item 3	0.577
				Item 4	0.424
				Item 5	0.684
teleworking	0.709	59.513	0.771	Item 3	0.603
				Item 4	0.651
				Item 5	0.607
				Item 6	0.519



**Figure 1.** Research framework.

## 4. Descriptive Statistics and Empirical Results

- This chapter deals with the field study, descriptive statistical analysis of the answers, which come from the sample of the study. In addition to test of hypotheses of the study, and analysis the information collected from the questionnaire. Therefore, this researcher of the study presented at the beginning a description of the characteristics of the study sample, and the binary linear correlation coefficients between the study variables. The validity of the variables and data of the study to perform the statistical analysis. In addition, the model of the structural equation for the framework under study that the researcher tested, and the analysis of information collected from questionnaire.

### 4.1. Correlation

- The researcher determined linear correlation coefficients between the study variables, as shown in **Table 2**.
- The correlation coefficient between the readiness of the business environment with the private commercial banks under study and the variable teleworking as a whole was as follows (0.668), which indicates that it is almost high, and this confirms that there is a fundamental correlation between them, at the level of significance 0.01.
- The correlation coefficients between the dimensions of the business environment's readiness in the private commercial banks under study. These dimensions are the availability of information and technology, training and

**Table 2.** Linear correlation coefficients between study variables.

Variables	Business environment readiness							
	Information and technology	Training	Organizational culture	Top management support	Employee skills	Flexibility and nature jobs	Total work environment readiness	Teleworking
Information and technology	1							
Training and development	0.581	1						
Organizational culture	0.528	0.550	1					
Top management support	0.597	0.469	0.580	1				
Employee skills	0.653	0.565	0.518	0.498	1			
Flexibility and nature of jobs	0.597	0.563	0.595	0.522	0.529	1		
Total work environment readiness	0.720	0.660	0.807	0.808	0.762	0.655	1	
Teleworking	0.637	0.563	0.669	0.572	0.616	0.569	0.668	1

development, organizational culture, top management support, employee skills and the nature of jobs (flexibility). The correlation coefficient of these dimensions in a total were as follows (0.637, 0.563, 0.669, 0.572, 0.616, 0.569), respectively, which indicates that they are nearly elevated, and confirm a significant correlation between them, at the level of significance 0.01.

- There is a correlation between the dimensions of the business environment readiness: the availability of communication and information technology, training, organizational culture, support for senior management, employee skills, and the nature of jobs (flexibility), with each other, as shown in the table (5/10). This above correlation between the availability of information technology, and employee skills is 0.653, while the correlation below is between senior management support and training, which is 0.469.
- In the researcher point of view, although the previous results show a correlation between the variables of the study, this is not sufficient, but rather it is necessary to verify this by using more advanced statistical methods, which was done in the next part of the study.

#### 4.2. Normality Test

- In this part, the researcher presented the results of the formal normal distribution test for study variables, as follows:
  - **Formal test of normality**
- The researcher has done the formal test for the natural distribution of the study variables, and **Table 3** shows the results of the formal test for the natural distribution as follows:
- From the table, the researcher observed that the value of the significance level of the research variables; (information technology, training, organizational culture, top management support, employee skills and nature of jobs (flexibility)) is 0.000, meaning that they are all less than 0.05. This means that the data are not subject to the normal distribution of the data.

#### 4.3. Hypothesis Testing

- In this part, the validity of the study hypotheses will be tested using the structural equation model, and descriptive data analysis, as follows:

**Table 3.** The formal test of natural distribution.

	The formal test of natural distribution						
	Kolmogorov-Smirnov			Shapiro-Wilk			
	Statistic	Df.	Sig.	Statistic	Df.	Sig.	
The availability of information technology	0.340	322	0.000	0.739	322	0.000	
Training and development	0.307	322	0.000	0.827	322	0.000	
Organizational culture	0.301	322	0.000	0.837	322	0.000	
Support for top management	0.287	322	0.000	0.845	322	0.000	
Employee skills	0.372	322	0.000	0.717	322	0.000	
The nature of jobs (flexibility)	0.310	322	0.000	0.847	322	0.000	

- **First hypothesis**

- In this part, the researcher presented the descriptive analysis of data and results, as shown in **Table 4**.
- Where it is clear from the results of **Table 3** that the descriptive analysis of the independent variables of the dimensions of the business environment readiness, in order to measure the first hypothesis of the study. The hypothesis that led to “There is a perception among the vocabulary of the study sample of the readiness of the business environment to apply the teleworking to the private commercial banks operating in Alexandria Governorate Subject of study”, which includes the average value and the standard deviation. The table shows:
- The vocabulary of the study sample has a relatively high perception of all dimensions of business environment readiness, which are availability of information technology, training, organizational culture, support for top management, employee skills, and the nature of jobs (flexibility). Where the arithmetic average of them: 4.20, 3.88, 3.86, 3.83, 4.23, 3.66, respectively, which are values greater than 3, and the results also show that the perception of the sample items for the readiness of the business environment in a total bank was relatively high. Where the mean averaged 3.91, and that indicates that it indicates the readiness of the business environment in commercial banks Private sector under study, which is reflected in the performance of the private commercial banks under study.
- The values of the standard deviation of the views of the vocabulary of the study sample about the readiness of the business environment represented in the dimensions. The dimensions are the availability of information technology, training and development, organizational culture, support for top management, employee skills, and the nature of jobs (flexibility) in the private commercial banks under study, the existence of a degree high consensus among them, as all values of standard deviation are less than the correct one.

- **Second hypothesis:**

- In this part of the chapter, the researcher presented the descriptive analysis of the data, as shown in **Table 5** the descriptive analysis of the dependent variable

**Table 4.** Descriptive analysis of independent variables.

Variables	N	Mean	Standard Deviation
The availability of information technology	322	4.2063	0.60403
Training and development	322	3.8844	0.73156
Organizational culture	322	3.8656	0.83651
Top management support	322	3.8312	0.76950
Employee skills	322	4.2344	0.54693
Nature jobs (Flexibility)	322	3.6625	0.87018
Total	322	3.91	0.45

**Table 5.** Descriptive analysis of the dependent variable.

Variables	N	Mean	Standard Deviation
Teleworking	322	4.2937	0.57204

of teleworking in order to measure the second hypothesis of the study and its effect.

- It was found from the results of **Table 4** that the vocabulary of the study sample had a relatively high perception of adopting the method of teleworking, where the value of the mean of the dependent variable was 4.29, which is a value greater than 3, and that the value of its deviation was 0.57, which is less than 1.
- **Third hypothesis**
- This hypothesis aims to test the effect of the readiness of the commercial banks environment in the governorate of Alexandria under study on teleworking. In addition, the researcher analyzed the structural equation model for research variables, (availability of communication and information technology, availability of training, organizational culture, support for senior management, staff skills, nature jobs (flexibility), teleworking), and **Table 6** shows the results of the analysis.
- The researcher found from the results of the previous in **Table 5**:
- There is a positive moral effect between each of the following variables: the availability of information technology, organizational culture, employee skills, and the nature of jobs (flexibility) on the teleworking variable. Where the values of the estimates between the variables that showed a positive moral effect between them and the teleworking, were as follows: 0.280, 0.265, 0.247, 0.117, respectively. It was also found to the researcher that the values of the significance level are all less than 0.05.
- The results of the analysis of the structural equation of the researcher showed that there was a negative effect of the variable providing training on the dependent variable teleworking, where the value of the estimates was  $-0.094$  and the value of the significance level was less than 0.05.
- The results of the analysis of the structural equation of the researcher showed that there was a negative effect of the variable supporting top management on the teleworking variable, where the estimate value of the variable was  $-0.202$ , and the researcher found that the value of the significance level is less than 0.05.
- It was also found that the value of the R coefficient of determination is equal to 0.532 and this means that the variables: availability of information technology, availability of training and development, organizational culture, employee skills, support of top management, the nature of jobs (flexibility), explain 53.2% of the change in the dependent variable. Teleworking, and the rest is due to other factors.
- By noting the Beta values for the variables, we find that the variable provides

**Table 6.** A model of the structural equation between the study variables.

Independent variables		Dependent variables	Estimates	P-value (Sig)	Beta	R square
The availability of information technology	<---	Teleworking	0.280	0.002	0.471	
Training and development	<---	Teleworking	-0.094	0.046	-0.163	
Organizational culture	<---	Teleworking	0.265	0.023	0.447	0.532
Top management support	<---	Teleworking	-0.202	0.015	-0.439	
Employee skills	<---	Teleworking	0.247	0.020	0.240	
Natural jobs (Flexibility)	<---	Teleworking	0.117	0.016	0.174	

the information technology more variable have an effect on the dependent variable “teleworking”. Where the value of the Beta parameter equals 0.471, followed by the variable organizational culture “in the impact on the dependent variable” teleworking where the value Beta coefficient equals 0.447. Then employee skills, where the value of the Beta coefficient equals 0.240, then the variable is the nature of jobs, where the value of the Beta coefficient equals 0.174, then the variable provides training where the value of the Beta coefficient equals 0.163, and finally the variable support top management where the value of the Beta coefficient is 0.439.

- **Table 7** shows an indicator of statistically significant results from the structural equation model between the study variables:
- The results in **Table 6** indicated that the modified or weighted (Kay) 2 statistic with degrees of freedom is 2.466, which is good as the value of this statistic is less than 3. In addition to that, the Goodness of fit index is 0.844 and an indicator. The comparative fit index is 0.850, which is considered acceptable indicators because it is suitable to compare the quality of the measures with the sample size varying from one study to another. The square root of the Residual Mean Square—RMSEA is 0.068, which is the value that expresses the amount of errors in the model that cannot be explained and is an acceptable value because it is less than 8%.
- Based on the previous results, the following can be observed:
- The first sub-hypothesis of the first hypothesis “There is a positive relationship between the availability of information technology and the application of teleworking with the private commercial banks under study in Alexandria Governorate” is acceptable.
- The second sub-hypothesis of the first hypothesis “There is a negative relationship between the availability of training and development and the application of teleworking in the private commercial banks under study in Alexandria Governorate” is acceptable.

**Table 7.** Index of the structural equation model between the study variables.

Statistical (Ca) 2 weighted degrees of freedom (CMIN/DF)	Match quality index (GFI)	Adjusted match quality index (AGFI)	Comparative Quality Index CFI	The square root of mean error squares (RMSEA)
2.466	0.844	0.807	0.850	0.068

- The third sub-hypothesis of the first hypothesis “There is a positive relationship between organizational culture and the application of teleworking in the private commercial banks under study in Alexandria Governorate” is acceptable.
- That the fourth sub-hypothesis of the first hypothesis “There is a negative relationship between supporting the top management and the application of teleworking in the private commercial banks under study in Alexandria Governorate” is acceptable.
- The fifth sub-premise of the first hypothesis “There is a positive relationship between employee skills and the application of teleworking in the private commercial banks under study in Alexandria Governorate” is acceptable.
- That the sixth sub-hypothesis of the first hypothesis “There is a positive relationship between the nature of the jobs (flexibility) and the application of teleworking in the private commercial banks under study in Alexandria Governorate” is acceptable.
- Based on the previous results, the third hypothesis “There is a significant relationship between the readiness of the business environment and the application of teleworking in the private commercial banks under study in Alexandria Governorate” is acceptable.

## 5. Contributions and Originality

- The results of the study confirmed a positive effect of the availability of information and communication technology on the application of teleworking in the private commercial banks operating in the governorate of Alexandria under study, which, gives an indication that the availability of information and communication technology in the business environment leads to an increase in the application of teleworking in the private commercial banks operating in the governorate of Alexandria under study. In addition, this calls for emphasizing the interest of the management of private commercial banks under study to provide advanced technology, equipment and programs providing the internet and modern communication devices at work, which, leads to the ability of workers in private commercial banks operating in the governorate of Alexandria under study to carry out work tasks outside the bank’s headquarters.
- The results of the study did not confirm that the availability of training has a positive impact on the application of teleworking in private commercial banks operating in the governorate of Alexandria under study. However, the



results of the study showed that the impact of training was negative on the application of teleworking, which indicates the need for the attention of private commercial banks operating in the governorate of Alexandria under study by providing training for its employees. So that their capabilities and skills to use modern electronic devices can be increased, and technology programs positively help to implement teleworking in the private commercial banks operating in the governorate of study under study.

- The results of the study confirmed that the organizational culture positively affects the application of teleworking in private commercial banks operating in the governorate of Alexandria under study, which indicates that the level of organizational culture among workers in commercial banks is good, and helps a lot in the application of teleworking in private commercial banks.
- The results of the study confirmed that the skills of employees positively affect the application of teleworking in private commercial banks operating in the governorate of Alexandria under study, which, indicates that improving the skills of bank employees with the availability of technological infrastructure, working to increase the application of teleworking in private commercial banks operating in the governorate Alexandria is under study.
- The results of the study did not confirm that the support of senior management in the commercial banks operating in the governorate of Alexandria under study has a positive impact on the application of teleworking in it. But, the study showed that the impact is negative on the application of teleworking in it, which, indicates that there is no interest or orientation currently for the application of teleworking in private commercial banks, and do not support its application at the present time, and do not allow employees to do part of the work tasks away from the bank's headquarters.
- The results of the study confirmed that the nature of the jobs (flexibility) positively affects the application of teleworking in the private commercial banks operating in the governorate of Alexandria under study, which, indicates that the presence of some of the jobs of the flexible nature of the bank, which can be performed away from the headquarters of the bank, helps on the application of teleworking in private commercial banks subject to the current study.
- The results of the study confirmed that the order of the impact of the dimensions of the business environment in the commercial banks of the governorate of Alexandria under study on teleworking was in the following order: the availability of information, training, organizational culture, top management support, employee skills and finally nature of jobs, which, indicates that information and communication technology provides one of the most important dimensions of the business environment affecting the application of teleworking.

### **Recommendation**

In light of the results of the study, to achieve its goals, the researcher recom-

mends the following:

- The interest of the Arab Republic of Egypt and the organizations concerned with the application of the method of teleworking through holding introductory workshops and training courses on the method of teleworking and the expected benefits from its application.
- Concluding more agreements with the large international organizations that apply teleworking through the Egyptian state creating a business environment for international organizations to open branches in Egypt, and providing teleworking opportunities for distinguished youth.
- The Ministry of Communications and Information Technology plays its role in preparing the Egyptian business environment, by completing the technological infrastructure and continuing to improve it and covering communication networks and the Internet for all areas currently built and new cities that have been established to spread urban growth, interest in publishing and increase knowledge about the concept of teleworking method.
- The Egyptian government must reduce the costs of communications and the Internet, by reducing taxes on them and reducing customs on modern electronic devices.
- Increasing the support of the senior management in private commercial banks in the CFA to implement the method of teleworking, and seeking to implement it by increasing confidence in the employees and providing some work tasks outside the workplace in flexible jobs that do not harm work interests.
- Working to increase the interest of the higher management in the employees of the private commercial banks through the provision of specialized training courses on the application of teleworking. In addition, the expected benefits from its application, to provide the possibility of its application in the future, and contribute to the success of the expansion and urbanization carried out by the group and on a large scale.
- Enacting regulations, procedures, and legislation to teleworking at private commercial banks, to organize teleworking and to define the duties and rights of teleworkers and the bank by making a change to the existing labor regulations and placing teleworking in them.
- Determine the jobs of a flexible nature in commercial banks, for which work tasks can be performed from outside the bank's headquarters with a view to determining the number of employees who perform these jobs to provide training for them, determine the requirements for their technological implementation in the work environment and the employee's home and take the necessary measures to complete them.
- That the optimal arrangement for teleworking in the business environment in the Arab Republic of Egypt should not exceed the employment of employees more than two to three days a week, in order for it to be desirable, and to limit the number of consecutive days that the employee leaves the of-

face because it reduces the feeling of isolation Potential social and allows programming of meetings and interactions with clients, co-workers and managers on the days when remote communication.

## Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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