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THE ROLE OF TECHNOLOGICAL VIGILANCE IN ACTIVATING MANAGEMENT INNOVATION: CASE STUDY OF CONDOR ELECTRONIC COMPANY

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Abstract. *The purpose of this study is to determine the impact of technological vigilance dimensions (market technological vigilance, informatics, competitiveness, administrative, regulatory) in support management innovation (Internal Institutional Innovation, Value Creation, Innovation Management) at Condor Electronic Company in the state of Bordj Bou Arreridj, Algeria The descriptive approach was based on the theoretical and analytical approach in the field segment. Hypotheses and model were proposed in line with the nature of the study. The interview and questionnaire were used as basic tools for data collection and the questionnaire was distributed to 367 individual administrators working in Condor Electronic Company.*

The study found a number of results, the most important of which: the dimensions of technological vigilance in its various indicators have a positive impact on management innovation in the complex in question In other words, the more the technological vigilance system does its different practice of monitoring the market and competitors and investigating scientific information and making it into its strategy the more efficient and effective management innovation is achieved, it was found that Condor Electronic Company exercises relatively high managerial, managerial and competitive technological vigilance activities As for the study model, it is evidenced by the limits of our study, and in the light of previous findings the study has made several suggestions.

Keywords: *technological vigilance, information technology vigilance, competitiveness, management innovation, internal institutional innovation.*

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Introduction

In our current era of technological and cognitive development, institutions are facing many pressures, especially with the transformation of the economy from an industrial economy to an information or cognitive economy, which has forced them to make radical changes in their systems and plans in response to various of these changes. In order to enhance knowledge and create value for it, it must possess the greatest amount of information and have it managed by a group of experts and technicians capable of transforming this information into strategic decisions that lead organizations towards excellence. Today, the institution is forced to design a system to manage this huge amount of information, which facilitates the process of storing, processing and retrieving it when needed. In order for this system to be effective, it must be provided with the necessary information. This can only be achieved through what is called technological vigilance, which has

become today the method adopted by institutions for the purpose of monitoring the level of technological developments, and to know the nature of the modern technologies used. To ensure the appropriate selection of technology and monitoring systems, and to cultivate a spirit of creativity and innovation across all areas of the institution's activities, it is essential to introduce new approaches to university management. This entails building upon the existing foundation and developing a new methodology, distinct from traditional working practices. These measures are aimed at achieving sustainable progress in knowledge and research, and ultimately, at attaining the highest level of performance.

Problem of the study: Given the increasing interest of business organizations in technological vigilance, all material and human capabilities were harnessed to raise the level of innovation, as institutions were keen to adopt the concepts of technological vigilance and established special departments. This has brought about a qualitative shift in this field. However, the question is whether technological vigilance is being applied at the required level, thus raising the level of management innovation within the organization. Hence, the following question were posed: How does technological vigilance affect management innovation in the Condor Electronic Company in Bordj Bou Arreridj province?

To answer the problem of the study and as a starting point for the study, the following hypotheses were formulated:

H1: There is a statistically significant effect of market technological vigilance on management innovation at Condor Electronic Company.

H2: There is a statistically significant effect of information technology vigilance on management innovation at Condor Electronic Company.

H3: There is a statistically significant effect of competitive technological vigilance on management innovation at Condor Electronic Company.

H4: There is a statistically significant effect of administrative technological vigilance on administrative innovation at Condor Electronic Company.

H5: There is a statistically significant effect of organizational technological vigilance on managerial innovation at Condor Electronic Company.

Study objectives*:* Through this study, they aimed to achieve a number of goals:

1. Highlighting any dimension of technological vigilance that highly supports management innovation in the organization.
2. Determine which dimensions of management innovation most impact technological vigilance.
3. Analysing the method adopted by Algerian institutions in data collecting, storing and retrieving information with ease when needed, and highlighting the impact of this information on their technological development.
4. Providing recommendations that would help Algerian institutions use technological vigilance to support administrative innovation and confront competing organizations.

Literature Review

The concept of technological vigilance: it is the observation and analysis of the scientific, technical, technological environment and current and future economic impacts, in order to anticipate risks, threats and development opportunities (Jakobiak, 2001). Technological vigilance is defined as the set of technologies that systematically organize the process of collecting, analysing and disseminating technical information to ensure the survival and growth of the organization (EL Haoud, 2011), and it is the activity of monitoring the environment to detect signs of vulnerability that emerge when technologies develop (Mariinet & Ribault, 1991). It allows the company to achieve a dual goal: the first is to anticipate innovations in its sector of activity, both in terms of processes and products, in order to adapt and remain ahead of the competition, and the second is to monitor the development of normative texts in order to take the necessary measures and comply with the latest regulatory texts (Houre, 2020), it is also the process by which an organization is informed, in a proactive and organized manner, of every development occurring in its environment in order to better adapt to these developments (Caron-Fasan, 2008). Vigilance is an operational-

strategic tool that provides an organization with information that helps it in the organization's operational process as well as in the strategic decision-making process by providing it with information capable of guiding the organization's decisions in the long term (Cettih, 2005), so technological vigilance is of great importance, especially with the rapid technological development that characterizes the business environment today, as information has become an effective strategic resource for possessing and exploiting it well for its benefit, giving the organization a competitive advantage. Therefore, it has become necessary to use various tools to possess information, especially in the field of technology, including technological vigilance, which allows knowing the current situation of the organization and sensing the changes that occur in its environment, and most importantly (Henry, 1998). Identify the opportunities provided by the environment in a timely manner, anticipating developments in the environment, allow time to act and react.

Dimensions of technological vigilance: The dimensions of technological vigilance are as follows (Abdel Rahman, 2021).

Market technological vigilance: This vigilance is concerned with technological developments in the market. It monitors global technological developments, tracks developments in the field of information and communication systems, and monitors modern technologies in the technological market, accurately monitoring it by identifying those entering and exiting it and any changes that occur.

Information technology vigilance: It is concerned with information technology developments, and ensures the collection of scientific, technical, and technological information on a regular basis, and attention to scientific discoveries, innovations, and developments in industrial methods and techniques, and the emergence of new materials and concepts, with the ability to scrutinize the technology of the sector in which it operates.

Competitive technological vigilance: It is concerned with the technological developments of the competitor, and consists of having mechanisms to predict the behaviour and technological capabilities of competitors, adopting the principle of precedence in providing technology before competitors, and following up on all changes that occur in competing markets to provide the most distinctive technology.

Administrative technological vigilance: which refers to the diversity of administrative control methods with regard to obtaining, analysing and disseminating information in order to investigate various administrative developments, whether in relation to various training programs for employees, enhancing their ability to perform tasks better, developing creative thinking and thus the ability to solve various problems they face and deal with the latest technologies easily (Julien et al., 2003).

Organizational technological vigilance: It is concerned with managing the organization's activities and the level of employee participation in creating change, making decisions, taking responsibility for performing their jobs, following up on all developments that occur in organizational structures and methods of attracting human competencies, and collecting information on various developments that occur in work procedures, in addition to improving and developing the material and moral work environment (Hanane & Kilani, 2022).

Management innovation: Since the 1960s some scientists (Evan, 1966; Evan & Black, 1967; Daft, 1978) focuses their attention on a kind of innovation that does not include a technology dimension where they describe these innovations as management innovations. Management innovation is has analysed through different approaches socio-economic innovations have emerged. (Whittle, 1992; Abrahamson, 1996; Abrahamson and Fairchild, 1999). Management innovation became at the heart of London's business school research Programme by researchers Birkinshaw et al., 2008; Hamidi & Benabdeljlil, 2015, is an innovative idea that relates to staff recruitment, resource allocation, definition of tasks, management method or individual evaluation they are also those innovations taking place in an organization's social system. Human and Network Analysis Social system refers to interpersonal relationships that interact to achieve a particular goal or task (Damanpour & Evan, 1984; Hamel, 2006) had brought the concept of managerial innovation to life and argued that the concept was instrumental in achieving sustainable competitive advantage and

emphasized that significant progress in management often led to a significant change in the status of competition and shortly after it was publishing in a living paper in the Academy of Management Review by Birkinshaw et al. (2008). Concept of management innovation now known as the invention and implementation of new management practice, process, structure or technology on the latest technology and aimed at promoting regulatory objectives (Birkinshaw et al., 2008). Management innovations are new organizational structures, management systems, management practices, processes and techniques that can create value for the organization (Zehir et al., 2012). Innovation also seeks to Meeting the consumer's needs, desires and evolution in goods and services to the highest quality standards justifies the Organization's ability to sustain and survive, making it, the goals of continuity (Allahow et al., 2018) .Helps to respond to external challenges and helps the organization achieve high performance by integrating practices into the organization in new ways (Zhang et al., 2019). Aims to promote organizational objectives which include organizational structure, production system, quality management, activity-based cost (Hanane & Kilani, 2024).

Methods

According to the nature of the study, the descriptive and analytical approaches were relied upon to develop the theoretical framework of the study by analysing the relationships between the variables and constructing a research model from which the study hypotheses were derived. For the applied aspect, a case study approach was adopted, combining both quantitative and qualitative methods. The quantitative approach involved processing the collected data using a questionnaire and analysing them with the SPSS programme to test the theoretical research model. The qualitative approach consisted of analysing qualitative data obtained through interviews conducted with several senior executives within the complex, the following Fig. 1 represents the proposed study model on which the study hypotheses are based.

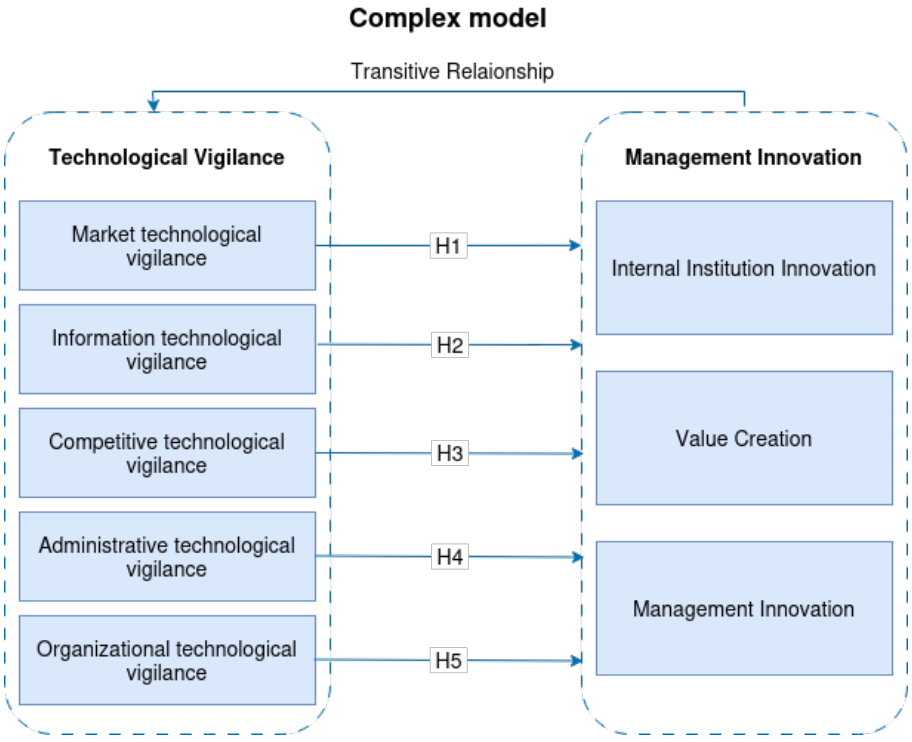

Figure 1. Study Model

Source: prepared by the researcher

The study sample consisted of a group of companies and directorates affiliated with the Condor Electronic Company, from which 365 administrators were surveyed.

Results

Descriptive analysis of study variables: The following Table 1 represents the results of the arithmetic average and standard deviation of study variables.

Table 1. Descriptive Statistics of Variables

Variables	Mean	Std. Deviation
Market technological vigilance	4.0695	0.60291
Information technological vigilance	3.9012	0.77834
Competitive technological vigilance	4.0184	0.53001
Administrative technological vigilance	3.9326	0.50005
Organizational technological vigilance	3.8364	0.68581
Internal institution innovation	3.8880	0.51917
Value Creation	3.5743	0.57986
Management Innovation	3.5995	0.48154

Source: by researchers based on SPSS v.24

The arithmetic means of the dimensions of technological vigilance and administrative innovation ranged between 3.5743 and 4.0695, indicating that employees' responses to these dimensions tended towards agreement. The standard deviations were acceptable and did not indicate significant dispersion in the respondents' answers.

Analysis of the level of stability and sincerity of the scale used: The following Table 2 shows the results of the study using the Alpha-Cronbach coefficient of stability and Composite Reliability and AVE.

Table 2. Summary of scale honesty and stability

Variable	Cronbach's Alpha	Composite Reliability	AVE
Market technological vigilance	0.870	0.956	0.874
Information technology vigilance	0.855	0.955	0.847
Competitive technological vigilance	0.842	0.875	0851
Administrative technological vigilance	0.893	0.921	0.987
Organizational technological vigilance	0.874	0.879	0.799
Internal institution innovation	0.997	0.892	0.678
Value Creation	0.897	0.851	0.687
Management Innovation	0.951	0.871	0.641

Source: by researchers based on SmartPLS4

Table 3. Discriminant validity of Study Variables

	Market technological vigilance	Information technological vigilance	Competitive technological vigilance	Administrative technological vigilance	Organizational technological vigilance	Internal institution innovation	Value Creation	Management Innovation
Market technological vigilance	0.870							
Information technological vigilance	0.754	0.741						
Competitive technological vigilance	0.785	0.655	0.845					
Administrative technological vigilance	0.747	0.644	0.765	0.869				
Organizational technological vigilance	0.822	0.687	0.782	0.735	0.896			
Internal institution innovation	0.713	0.614	0.871	0.719	0.835	0.811		
Value Creation	0.783	0.826	0.687	0.741	0.871	0.682	0.901	
Management Innovation	0.623	0.687	0.8 45	0.689	0.788	0.743	0.846	0.874

Source: by researchers based on SmartPLS4

Through the results reliability assessment factors for underlying variables are good values and acceptable as the value of both Cronbach's Alpha and Composite Reliability and AVE for study variables exceeded 0.60 and so all variables have high levels of reliability and internal stability.

Differentiated Honesty Test by HTMT: Standard (Henseler, 2015) added another lender to measure differential credibility (HTMT) and set the standard threshold of 0.90 and any value greater than 0.90 indicates no differentiated credibility.

Note from the results that all HTMT (Heterotrait Monotrait ratio) values for variables are limiting between 0.901 and 0.614 values below threshold level 0.90 and this indicates the validity of the differentiation between the variables inherent in the study's measurement model.

Study hypothesis test results: To test these hypotheses, Carl Pearson's correlation coefficient was analysed, simple linear regression was performed, and ANOVA was tested.

Table 4. Summary of results of the hypothesis

Study hypotheses	R	R Square	ANOVA			
			F	SIGN	T	SIGN
Hypothesis 1	0.353	0.125	52.112	0.000	14.09	0.000
Hypothesis 2	0.379	0.144	61.359	0.000	16.086	0.000
Hypothesis 3	0.412	0.170	74.760	0.000	16.614	0.000
Hypothesis 4	0.435	0.19	84.340	0.000	14.482	0.000
Hypothesis 5	0.420	0.176	78.17	0.000	12.236	0.000

Source: by researchers based on statistical analysis output

Analysis of the results of the first hypothesis: It is clear to us from the results shown in the Table 1 that the correlation coefficient reached a value of 0.35, which indicates the existence of a weak positive relationship between the dimension of market technological vigilance and administrative innovation in the complex under study. This was reflected in the determination coefficient, which reached 0.125, meaning that 12.5% of the variance in administrative innovation is due to the variance in the dimension of market technological vigilance as for the ANOVA analysis of variance, it turns out that *F* had a value of 52.11, while *T* had a value of 14.09, which are statistically significant values at the 5% significance level. The significance level of these results is also lower than the significance level of the study, which indicates that the model for this hypothesis is statistically significant. Based on the above, the first hypothesis is accepted.

Analysis of the results of the second hypothesis: It is clear to us from the results shown in the Table 2 that the correlation coefficient reached a value of 0.37, which indicates the existence of an average positive relationship between the dimension of information technology vigilance and administrative innovation for the complex under study. This was reflected in the determination coefficient, which reached 0.144, meaning that 14.4% of the variance in administrative innovation is due to the variance in the dimension of information technology vigilance as for the ANOVA analysis of variance, it turns out that *F* had a value of 61.53, while *T* had a value of 16.08, which are statistically significant values at the 5% significance level. The significance level of these results is also lower than the significance level of the study, which indicates that the model for this hypothesis is statistically significant. Based on the above, the second hypothesis is accepted.

Analysis of the results of the third hypothesis: It is clear to us from the results shown in the Table 3 that the correlation coefficient reached a value of 0.41, which indicates the existence of an average positive relationship between the dimension of competitive technological vigilance and administrative innovation for the complex under study. This was reflected in the determination coefficient, which reached 0.17, meaning that 17% of the variance in administrative innovation is due to the variance in the dimension of competitive technological vigilance as for the ANOVA analysis of variance, it turns out that *F* had a value of 74.76, while *T* had a value of 16.61, which are statistically significant values at the 5% significance level. The significance level of these results is also lower than the significance level of the study, which indicates that the model for this hypothesis is statistically significant. Based on the above, the third hypothesis is accepted.

Analysis of the results of the fourth hypothesis: It is clear to us from the results shown in the Table 4 that the correlation coefficient reached a value of 0.45, which indicates the existence of an average positive relationship between the dimension of administrative technological vigilance and administrative innovation for the complex under study. This was reflected in the determination coefficient, which reached 0.19, meaning that 19% of the variance in administrative innovation is

due to the variance in the dimension of administrative technological vigilance as for the ANOVA analysis of variance, it turns out that *F* had a value of 85.34, while *T* had a value of 14.48, which are statistically significant values at the 5% significance level. The significance level of these results is also lower than the significance level of the study, which indicates that the model for this hypothesis is statistically significant. Based on the above, the fourth hypothesis is accepted.

Analysis of the results of the fifth hypothesis: It is clear to us from the results shown in the Table 5 that the correlation coefficient reached a value of 0.42, which indicates the existence of an average positive relationship between the dimension of administrative technological vigilance and administrative innovation for the complex under study. This was reflected in the determination coefficient, which reached 0.176, meaning that 17.6% of the variance in administrative innovation is due to the variance in the dimension of organizational technological vigilance as for the ANOVA analysis of variance, it turns out that *F* had a value of 78.17, while *T* had a value of 12.23, which are statistically significant values at the 5% significance level. The significance level of these results is also lower than the significance level of the study, which indicates that the model for this hypothesis is statistically significant. Based on the above, the fifth hypothesis is accepted.

Discussion

The results of testing the first hypothesis (H1) proved the existence of a statistically significant effect of the dimension of market technological vigilance on administrative innovation, as the results of the study showed that there is an effect of the dimension of market technological vigilance on administrative innovation by 12%, where the percentage is weak These results can be explained by the fact that market technological vigilance is not a primary source for activating administrative innovation in the Condor complex, but rather a secondary source for the presence of a statistically significant effect of this hypothesis, which indicates that the Condor complex activates the market technological vigilance system through partnership and cooperation contracts, whether with universities or with foreign organizations such as the Chinese organization Hisense for Industrial Development and Technology Transfer, which is an effective national system for renewal and innovation. In addition to supporting and encouraging subcontracting, it was found that Condor Multimedia was on the verge of bankruptcy in 2019, but it was supported by Condor Electronic Company, which made it a subcontracting organization affiliated with it. The organization began to regain its strength, and in 2022, Condor Multimedia became the main source of profits for Condor Electronics, constituting 90% of the organization's profits, which encourages management innovation partnership contracts contribute to benefiting from the skills and competencies of human resources and various types of technology, which achieves the settlement of technology.

The results of testing the second hypothesis (H2) proved the existence of a statistically significant effect of the dimension of information technological vigilance on administrative innovation, as the results of the study showed that there is an effect of the dimension of information technological vigilance on administrative innovation at a rate of 14%, as this percentage is considered weak. Which explains that there are factors other than information technological vigilance that affect administrative innovation in the Condor Electronic Company. Because there is an impact that is taken into consideration and as long as there is a statistical significance, it was found that the Condor Electronic Company established a complete, independent unit for information systems that is responsible for managing all the large databases of the various companies that belong to the Condor Electronic Company, as it created an application for the Condor Logistics Company that facilitates the process of selling trucks by ordering them directly using this application, in addition to that they designed a website that links the banks (the Algerian Foreign Bank, alBaraKa Bank, ALSALAM BANK, National Bank of Algeria) and the Accounting and Finance Directorate of the complex, in order to facilitate the purchasing process for customers and thus facilitate work and relieve pressure on the accounting and finance team, and thus activating the information technology vigilance system in the Condor Electronic Company facilitates the process of preserving data and monitoring everything new, especially with regard to information security, which requires flexible organizational structures and advanced work systems.

The results of testing the third hypothesis (H3) proved the existence of a statistically significant effect of the dimension of competitive technological vigilance on administrative innovation, as the results showed that competitive technological vigilance contributes to activating administrative innovation by 17%, which implies that the dimension of competitive technological vigilance, even if it is a small percentage, has a role in supporting administrative innovation. Activating the competitive technological vigilance system by monitoring various changes and events that occur to its competitors, whether patents or modern technology that the competing organization enters and exploits to produce its products or services, as well as knowing those in charge of research and development laboratories in order to provide them with privileges and incentives that are double what the competing organization provides, so that it can benefit from their experience and skills in research and development to produce innovative and new products that exceed customer expectations. In order for the complex to be able to gain the largest market share in the market, it was found that institutions such as Condor Electronic Company were among the competitors of IRIS, Giant, ENIAM. Thus, monitoring competitors makes the organization avoid the risks of displaying new products, whether by existing competitors or new competitors, and thus raises the level of administrative innovation, which the complex must activate because it is the basis for other types of innovations and a basic source for increasing the complex's competitiveness.

The results of testing the fourth hypothesis (H4) proved the existence of a statistically significant effect of the dimension of administrative technological vigilance on administrative innovation, as the results of the study showed the existence of an effect of administrative technological vigilance on administrative innovation by 19%, which indicates that administrative technological vigilance contributes to supporting Administrative innovation of the Condor Electronic Company. The greatest evidence of this is that the Academy has established an organization specialized in training and training employees, which is Condor Academy, which is a pole of science and knowledge that aims to develop the human capabilities of the Academy and enhance the skills of individuals at all levels and branches. This is done by developing very advanced models in the field of training and training the workforce in line with modern technology used at the global level. It also signed an agreement and partnership with Algerian and foreign universities to ensure education and training based on international standards. Condor Academy does not only train employees affiliated with the complex, but even employees affiliated with competing organizations. Therefore, the complex seeks to devote all comprehensive quality standards in order to achieve excellence and uniqueness, which contributes greatly to supporting administrative innovation.

The results of testing the fifth hypothesis (H5) proved the existence of a statistically significant effect of the dimension of organizational technological vigilance on administrative innovation, as the results of the study proved that the contribution of organizational technological vigilance in supporting administrative innovation was 17.6%, and this explains that organizational technological vigilance contributes to supporting administrative innovation for the complex. The complex participates in various salons related to national innovation in order to establish a culture of creativity and innovation within the institution, as it has obtained many patents in various branches of the complex. For example, in 2022, it obtained 10 patents in the field of refrigeration and electronics. It also plans and encourages human resources through wage systems, which makes the human resource ready to provide to the complex by devoting all its capabilities and skills to achieving creativity and innovation.

Conclusion

Technological development has contributed to the emergence of a new era of advanced and highly intelligent systems that were not known before, as the industrial sector has absorbed a huge amount of technological achievements recently. In order to ensure market excellence for industrial organizations to keep pace with modernity and technological development, through the technological vigilance system, which is a tool that enables organizations to remain in constant and continuous contact with the technological environment, a good example is the Condor Electronic

Company, which contains a series of organizations with different activities that occupy 50% of the Algerian market. In order to be able to conquer international markets and compete with global organizations, they must reconsider the level of activation of the technological vigilance system, which is one of the effective systems that contribute to capturing weak signals from the business environment regarding technological developments and innovations. The extent of its contribution to supporting management innovation, which is the basis of other types of innovation and which leads the organization towards excellence.

Hence the features of the problem that were addressed in this study, which was presented as follows: How does technological vigilance contribute to supporting administrative innovation in the Condor Electronic Company? In an attempt to answer this problem, the research was divided into five chapters. In the first and second chapters, the theoretical foundations of technological vigilance and management innovation were addressed in the third chapter, the contribution of technological vigilance in supporting management innovation in business organizations was addressed, in the fourth chapter, the field study was systematically designed, in which the study model was explained. Finally, the fifth chapter is concerned with analysing and discussing the results of the field study, which includes analysing the study samples and presenting and discussing the results as a final step.

The study also yielded a number of results that answer the study hypotheses that were put forward at the beginning of the research, which are:

Study results: After the study conducted on administrators and heads of departments in the Condor Electronic Company in Bordj Bou Arreridj Province, Algeria, to clarify the extent to which technological vigilance contributes to supporting administrative innovation, a number of results were reached, which are as follows:

1. The results showed that market technological vigilance is not a primary source for activating management innovation in the Condor Electronic Company, but rather a secondary source for the presence of a statistically significant effect of the market technological vigilance dimension on management innovation, which indicates that the Condor Electronic Company activates the market technological vigilance system through partnership and cooperation contracts, whether with universities or with foreign organizations, in order to develop the industry In addition to supporting and encouraging handling, this is what encourages administrative innovation. Partnership contracts contribute to benefiting from the skills and competencies of human resources.

2. The results of the study showed that there is an impact of the dimension of information technology vigilance on management innovation, it was found that the Condor Electronic Company established a complete independent unit for information systems, which is responsible for managing all the large databases of the various companies belonging to the Condor Electronic Company. As it created an application for the company Condor Logistics that is used to sell trucks by ordering them directly using this application in addition, they designed a website linking the banks and the complex's Accounting and Finance Directorate in order to facilitate the purchasing process for customers and thus facilitate the work of the accounting and finance team as well. Therefore, activating the information technology vigilance system in the complex facilitates the process of preserving data and monitoring everything new, especially with regard to information security.

3. The results showed an impact of competitive technological vigilance on management innovation. Activating the competitive technological vigilance system is done by monitoring various changes and events that occur to its competitors, whether patents or modern technology, as well as the knowledge of those in charge of research and development laboratories in order to provide them with privileges and incentives that are double what the competing organization provides, so that it can benefit from their experiences and skills in research and development and thus raise the level of management innovation.

4. The results of the study showed an impact of administrative technological vigilance on administrative innovation, which indicates that administrative technological vigilance contributes to supporting administrative innovation for the Condor Electronic Company, and the greatest evidence of this is its establishment of an organization specialized in training and training employees, Condor

Academy, specialized in training and training employees, aiming to develop the human capabilities of the Condor Electronic Company and enhance the skills of individuals at all levels and branches. This is achieved by establishing advanced and modern methods and approaches for training and training the workforce in line with modern technology used worldwide. An agreement and partnership have also been signed with Algerian and foreign universities to ensure education and training.

5. The results of the study proved the impact of organizational technological vigilance on administrative innovation, as the complex participates in various salons related to national innovation, in order to consolidate the culture of creativity and innovation within the organization, as it has obtained many patents in various branches of the complex. For example, in 2022, it obtained 10 patents in the field of refrigeration and electronics. It also plans and encourages human resources through wage systems and material and moral incentives. Which makes the human resource ready to provide the best to the complex, by devoting all its capabilities and skills to achieving creativity and innovation and establishing a modern administration based on various advanced and highly intelligent means and technologies.

Study recommendations: Based on the results reached, a number of recommendations can be mentioned for Condor Electronic Company:

1. Condor Electronic Company should focus on two or three dimensions of technological vigilance and activate them in the organization to build an effective system that suits the various activities and branches of the group.

2. Employing highly intelligent experts and technicians, with the help of strategic planning for human resources, encouraging the recruitment of competencies from outside the country and attracting them with material and moral incentives, and adopting a culture of investing in human resources because they are considered a strategic resource and investing in them earns the organization patents that make the organization occupy the forefront in entrepreneurship.

3. Establishing the concepts related to technological vigilance in the complex among employees at various administrative levels, because vigilance is everyone's responsibility, so that they respond to various technological developments and withstand them, and thus the employees feel the extent of the burden of responsibility on them, which makes them feel and motivates them to provide the best for the organization, considering that it cares about their participation in every step it takes, and thus increases their loyalty to the organization and exerts all efforts to make the Condor Electronic Company number one in Algeria and move to international competition.

4. Establishing an accounting error detection system contributes to facilitating accounting and financial operations, given that the Accounting and Finance Directorate of the complex is responsible for the various products of the various branches and activities of the complex, and thus the possibility of committing errors and losing incoming sums of money, so designing a system reduces these errors and facilitates the work of the accountant.

5. Relying on flat organizational structures and transferring powers between different administrative levels, in order to facilitate the process of making timely decisions.

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