

The Level of Applying Competitive Intelligence as Perceived by Managers at Telecom Company "Zain" in Jordan

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Abstract

This study aimed to identify the level of application of competitive intelligence, as well as the impact of some personal variables in the managers' assessment of the level by which the telecom company Zain the applied the areas of competitive intelligence represented by: planning, collection, analysis, communication, in addition to finding out how the level of application of competitive intelligence in the examined company from the point of view of managers varies by varying variables such as gender, age, and years of experience in work and specialization. The population of the study consisted of all managers in the examined company, the sample of the study was (130) managers that were selected randomly from the population of the study. A questionnaire was used as the instrument of data collection. The study found the following results:

- The application of competitive intelligence in Zain Telecom Company from the point of view of managers was large in all areas.*
- There were no statistically significant differences at significance level of ($\alpha \leq 0.05$) in the level of application of competitive intelligence in Zain Telecom Company from the point of view of managers due to the personal characteristics of the respondents (gender, age, years of experience and specialization).*

Based on the results of the study, a series of proposals and recommendations were presented to the company and researchers.

Keywords: Competitive intelligence, Zain Telecommunications Company, Jordan.

1. Introduction

Administrative communications are a key factor in modern management and one of the most important administrative operations of the Organization, its importance is increased in today's world as a result of: large volume of organizations, the inflated number of workers, and the complexity of its business and the dependence of the management of these organizations on information in order to carry out its responsibilities and make important decisions and conduct their daily business matters, and achieving the goals that had been the intention behind its establishment, It also plays a vital role in the delivery of ideas, opinions and information, views and experience among management and workers, and to influence the behavior of individuals and groups, and to change or modify these behaviors and turn them towards a certain direction, and in identifying the method and the way to handle the interaction between individuals to the point that one could say that communication is a "heartbeat of the Administration" of any organization (Aoudeh, 1997).

Like other communications organizations around the world, telecommunications companies seek innovation, development and modernization due to the diversity of influences in the surrounding environment, which elevates its position to the level of leadership and excellence among other community institutions but that will not be possible unless they are highly efficient, effective, honest and responsible in performing the mission, carrying out functions and achieving the objectives to the fullest and the best, moreover the introduction of a variety of regulatory mechanisms for expropriation, the dissemination and the use of information effectively, to achieve competitiveness, survival and continuity, by the application of modern management techniques, including Competitive intelligence which has emerged recently in the management literature and is considered one of the fastest growing fields in the world of business, and became a main method to achieve competition.

Developed countries have used intelligence more widely, the most prominent developments is what is known as the multiple intelligence theory raised by Howard Gardner and Joseph Forgas (2006) who work in the area of human intelligence and classified intelligence in a number of species including competitive intelligence that contributes to the effectiveness of the organization.

In the midst of the enormous administrative and intellectual momentum, globalization and the rapid changes in the business world, the need for the continuous assessment of competition environment and information coming from that environment has appeared clearly, the competitive intelligence as a system for the environmental survey that contributes to the integration of the knowledge of everyone in the organization, which is considered a virgin research area in the Arabic States, has gained a considerable attention in most western countries so that the contemporary thinkers call this era the intelligence era, as it is one of the key variables of the new management model, which can keep up with the international and local variables, and try to adapt with it. It can be said that competitive intelligence is the real challenge facing organizations in the coming decades.

Competitive intelligence is not a goal in itself but a means to achieve an aim that is giving information to decision makers and policy makers showing them the integrity of these decisions, and helping them to draw a picture of better performance that could be planned.

Due to the important and vital characteristics that the telecommunication sector in Jordan has enjoyed, and its close association with the national economy, where communications are considered a vital pillar in all production or service areas constituting the national economy, henceforth this sector should have a great interest, study and support to achieve what has been planned to it of goals and aspirations, so this study came to investigate the application of competitive intelligence in Zain telecom company, and to provide suggestions and guidance that will improve work in this sector.

2. The problem of study and questions

Many organizations are moving towards applying competitive intelligence to achieve competitive advantage. But the results arising from the practice of competitive intelligence are often intangible and cannot be measured by traditional accounting methods. It is difficult to convince senior management to invest in competitive intelligence unless there are results measured by clear financial indicators. Therefore it has become necessary to examine the application of competitive intelligence. The problem of the study can be formulated in the following questions:

- 2.1 What is level of application of competitive intelligence in Zain Telecom Company from the point of view of managers?
- 2.2 Are there statistically significant differences at significance level of ($\alpha \leq 0.05$) from the point of view of managers in Zain Telecom Company about the degree of competitive intelligence application according to different variables of gender, age, years of experience in work and specialization?

3. The objectives of the study

Based on the foregoing, the objectives of the study can be indicated as follows:

- 3.1 Detection of the level of application of competitive intelligence in Zain Telecom Company from the point of view of managers.
- 3.2 Identifying the most applicable key elements of competitive intelligence represented in planning, collection, analysis, and communication.
- 3.3 Comparing the levels of perceptions of members of the sample of the level of commitment of Zain Telecom Company of key elements of competitive intelligence, according to the following independent variables: sex, age, and years of work experience, specialization.

4. The study hypotheses

- 4.1 There are no statistically significant differences in the level of application of competitive intelligence in Zain Telecom Company from the point of view of managers attributed to gender variable.
- 4.2 There are no statistically significant differences in the level of application of competitive intelligence in Zain Telecom Company from the point of view of managers attributed to age variable.
- 4.3 There are no statistically significant differences in the level of application of competitive intelligence in Zain Telecom Company from the point of view of managers attributed to years of experience variable.

4.4 There are no statistically significant differences in the level of application of competitive intelligence in Zain Telecom Company from the point of view of managers attributed to specialization variable.

5. Theoretical framework

The Arabic library lacks studies and research and scientific books relevant to competitive intelligence, but some translated articles or studies the matter that makes the concentration of the theoretical framework of the study is focused on the various foreign research and studies.

The theoretical trends in the intelligence were proposed by several authors under different titles and appellations such as environmental scanning (Saxby et al, 2002), business intelligence (Pearce, 1989), strategic intelligence (Aaker, 1983), competitor analysis (Ghoshal & Westney, 1991), the competitive technical intelligence (Albagli et al, 1996), and market intelligence (Maltz & Kohli, 1996), Day & Shoemaker (2006) have introduced the concept of Peripheral vision which is very similar to the concept of competitive intelligence, as well as both Davenport and Harris (2006) who both presented the concept of competitive analysis. It is obvious that most of these titles emphasized that the intelligence is essential. By the year (1980), Porter has published "Competitive Strategy: a Technique for Analyzing Industries and Competitors", linking the analysis of competitor with the competition strategy which led to the creation of the background for the development of competitive intelligence.

5.1 The concept of competitive intelligence

Competitive intelligence was defined as "the process of gathering, analyzing and communicating environmental information to assist in strategic decision-making, moreover it is considered in itself the basis for strategic decision-making" (Dishman & Calof, 2008), it is also known as the "capacity to develop adequate organizational mechanisms for the acquisition and dissemination of information and use it effectively could leading to signs of excellence and the active adaptation with the major shifts in the market" (Blench & Dubinsky, 1999).

Competitive intelligence is considered a system for the environmental scanning on the integration of knowledge of every individual in the organization. Its importance is extended to cover a broad spectrum of activities and business fields, particularly those related to marketing function, including (analysis, business intelligence, business strategy, competitive intelligence information, uncertainty, cost of uncertainty, cross-functional teams, customer relationship management, prospecting, entrepreneurial positions, classification, forecasting, insight, information systems, integration, innovative performance, marketing intelligence, market research, new processes, new products, new services, external vision, open source, partnership, service operation, classification of types of service, strategic intelligence, flexibility, and strategic marketing scanning) (Calof & Wright, 2008).

It is obvious that the goal of competitive intelligence is providing complex, evaluated and analyzed information is considered a part of the strategic information management process that is accompanied and are inherent to the strategy of the organization (Moon, 2000).

5.2 Stages of the competitive intelligence

According to Kahaner (1997) and Calof & Dishman (2002) the stages of the competitive intelligence include:

- 5.2.1 Planning: is the first step taken by the organization to determine what the needed information is, the reason behind the need for it and where to find it (Weiss, 2002)? Moreover in this stage the requirements of intelligence are to be prepared and assessed (Fleisher, 2001), so that there is a need to work together with decision makers to transform those requirements to the specific needs of the intelligence, or the various key topics of the intelligence (Bose, 2008).
- 5.2.2 Collecting: information is the basis for competitive intelligence, at this stage the information is gathered from different sources either published or unpublished (Marceau & Sawka, 1999) and legally and morally from all possible sources (Bose, 2008), as well as specifying the sources, the collected and tested information -to determine the degree of reliability and consistency- is stored, there are (95%) of these information available in public sources (Mello & Medeiros, 2007) as follows:
 - 5.2.2.1 Published information: articles, books, thesis, business conferences, periodicals, government documents, letters, analytical reports, archives, records patent.
 - 5.2.2.2 Unpublished information: its sources are salesmen, architects, distribution channels, suppliers, advertising agencies, professional meetings, and companies specialized in competitive intelligence.

- 5.2.2.3 Internal unpublished sources of information: some studies suggest that (80%) of the necessary information about competitive intelligence is inherent in the internal knowledge of the organization.
- 5.2.2.4 Unpublished foreign information sources: it is likely that it could be valuable to competitive intelligence system although it could be available to any other organization.
- 5.2.3 Analysis: the collected information is analyzed to update the models and relationships that specify it (Bose, 2008), the experts authorize the information through analysis, compile those information and make the necessary recommendations according to it.

The analysis includes the systematic testing for appropriate data, information, and knowledge that are collected in order to be transferable to outcomes, and many practitioners believe that analysis is considered the actual action to create intelligence and to develop strategies that achieve sustainable competitive advantage to the Organization (Bose, 2008), through this process, the information is converted to the intelligence that could be possibly used in decision-making and in strategic tactics (Herring, 1998).

- 5.2.4 (publishing): imparting and interchanging thoughts opinions or information by speech, writing or signs, and is considered the final product of the competitive intelligence process, at this stage the information is used and the results is submitted to decision makers in a form of report or meeting (Miller, 2001) and (Bose, 2008), since the results of the competitive intelligence are required to be delivered to the owners of the authority and responsibility to be translated or converted into definitive results. Communication intelligence can also be delivered via (emails, presentations, accomplishments, competitor files and personal notes) (Fleisher, 2001).
- 5.2.5 Process/Structure: competitive intelligence requires appropriate policies and procedures and formal or informal infrastructure in order to enable employees to contribute actively in competitive intelligence, as well as earning benefits. There is significant support for the formal structure and income systemic of intelligence (Porter, 1980) and (Saayman et al, 2008).
- 5.2.6 Organizational awareness and culture: it essential that the company should possess an appropriate organizational awareness in order to use the company's competitive intelligence efforts successfully, as well as to the possession of a culture of competition (Slater & Narver, 1994). Studies have shown that competitive intelligence units achieve benefits broadly from the support senior management (Evangelista, 2005), and this is reflected through the legitimacy and importance (Fehringer et al, 2005) and (Saayman et al, 2008).
- 5.2.7 Evaluation: represented in the evaluation of competitive intelligence, in order to measure and take into account the response of decision makers and their need for intelligence, as well as the impact of intelligence in them, this may be embodied in a set of questions, including whether intelligence was used? How? or why not? Are that results acceptable? Did they provide money? Do they strengthen the company's reputation? Is that an acceptable and modified process? then provide the necessary analysis in various areas in order to achieve continuous improvements, and the process should be continued and evaluated, as well as a whole it must be frequent, consistent with the evaluation process itself (Saleh, 2010).

6. Methodology of the study

The current study has adopted the descriptive analytical approach, which included a literature survey by reference to administrative sources of literature on competitive intelligence in order to build a theoretical framework for the study along with the use of field survey of data collection using the tool of the study then analyzing the data statistically, to test the validity of hypotheses and answer the questions.

7.1 Study population and sample

Zain Telecommunications Company in Jordan has been selected as the population of the study, due to the fact that it is considered of the big organizations that have the wide organizational work also the subject of competitive intelligence has not been previously discussed in this sector. The study population consisted of all managers, where (200) copies of the questionnaire have distributed. The researcher was able to recover (130) copies valid for analysis. Table 1 shows the sample characteristics according to the independent variables of the study.

Table (1): Characteristics of the study sample

	Variable	Number	Percentage
Gender	Male	108	83.1
	Female	22	16.9
	Total	130	100
Age	Below 35	61	46.9
	35 – 45	58	44.6
	Over 45	11	8.5
	Total	130	100
Work Experience	Below 5 years	15	11.5
	6 - 10 years	38	29.2
	Over 10 years	77	59
	Total	130	100
Specialization	Business Administration	50	38.5
	MIS	35	26.9
	Marketing	10	7.7
	Information technology	28	21.5
	Other	7	5.4
	Total	130	100

7.2 Study tool

In order to achieve the objectives of the study the theoretical literature and previous studies were referred to (Sawka et al, 1995), (Calof & Dishman, 2002) and (Dishman & Calof, 2008), where a questionnaire for data collection from the individuals of the sample, was developed. The questionnaire consisted of two parts, the first part includes general information about the individuals of the study sample, the second part consisted of (28) items to disclose the level of application of competitive intelligence in Zain Telecommunications Company in Jordan, distributed on four areas, namely: (Planning) , (collection) , (analysis) and (communication).

5-point Likert scale was adopted to investigate the responses of the individuals of the sample where: Strongly Disagree has been given 1 degree, Disagree has been given 2 degrees, neither agree nor disagree has been given 3 degrees, Agree has been given 4 degrees and Strongly Agree has been given 5 degrees.

7.3 The validity of the tool and its reliability

The validity of the study tool was investigated primarily by presenting it to a set of arbitrators who are specialized in management, management information systems, technology of education where they have been asked to determine how each item is relevant to the area where it was included under, and to add, delete, or modify new items and its appropriateness for application. Based on their observations and proposals the tool has been modified. In order to make sure that the tool measures the intended areas and to verify its validity, the internal validity of the tool was extracted through calculating Pearson correlation coefficient between each area and the total degree of the tool, the results in table (2) illustrate that:

Table (2): Person Correlation Coefficient between each area and the total score of the Instrument:

Domain	Planning	Data collecting	Analysis	Communication	Total score
Planning	1				0.94 ^(**)
Data collecting	0.90 ^(**)	1			0.95 ^(**)
Analysis	0.80 ^(**)	0.87 ^(**)	1		0.92 ^(**)
Communication	0.72 ^(**)	0.77 ^(**)	0.66 ^(**)	1	0.86 ^(**)

** Correlation is significant at the ($\alpha \leq 0.01$)

The reliability of the study was verified by using (Cronbach’s Alpha) equation to estimate the degree of coherence and consistency of the fields of study, the total degree of the tool, as shown in table 3:

Table (3): reliability coefficients of the fields of study and the total degree of the tool according to the equation (Cronbach's Alpha)

Number	Domain	Alpha Coefficient
1	Planning	0.67
2	Data collecting	0.85
3	Analysis	0.88
4	Communication	0.91
	Total score	0.79

As indicated in table (3) that all values of Cronbach's Alpha for all fields of study was greater than the minimum required for this type of study (60%) (Sekaran, 2003), this indicates that the reliability coefficients derived for this tool are suitable and meet the purpose of the study.

8. Statistical analysis

After the completion of data collection, and unloading responses of the individuals of the sample, data were statistically analyzed using the statistical package for Social Sciences (SPSS), using arithmetic averages, standard deviations, the (t) test for independent samples, analysis of variance.

9. Results and discussion

9.1 First question: What is level of application of competitive intelligence in Zain Telecom Company from the point of view of managers?

In order to answer this question, arithmetic averages and standard deviations for each item and each area included in the study were extracted, as well as the total degree of the areas as a whole, as shown in tables (4), (5), (6), (7) and (8):

9.1.1 planning:

Table 4: the arithmetic averages and standard deviations for the items of the planning area

No	Item	Mean	Std.	Level
1	We are concerned about understanding the plans and intentions of not only our key competitors but also of key allies and partners, such as suppliers, distributors, investors and collaborators.	3.99	0.90	High
2	Our company produces intelligence reports and assessments on the competitors/emerging technologies that we believe are most important.	4.05	0.17	High
3	Our company continuously and systematically monitors our technologies globally to determine whether new competitors or technology substitutes are emerging.	4.20	.098	High
4	We monitor and assess the activities and plans of organizations and groups whose views of our company could affect us.	3.96	0.61	High
5	Our company produces assessments that address several possible outcomes of our competitors' actions and that identify the threats and opportunities those outcomes present for our company.	3.94	0.61	High
6	Our company analyses our competitors' plans and strategies to predict and anticipate their actions.	4.11	0.89	High
7	We interview our executives regularly to identify their intelligence requirements.	3.80	0.23	High
8	Key corporate decision-makers are regularly surveyed/interviewed to verify that the intelligence products produced for them satisfy their needs and provide value.	3.83	0.87	High
9	We know the mind set of the CEOs and other key executives of our top customers	3.98	0.97	High
10	We conduct intelligence projects regardless of whether we have been asked to do it or not.	4.30	0.82	High
General level		4.01	0.16	High

From the table (4) it is indicated that the answers of respondents on this set of items did not differ markedly, mostly refers to a great application, as indicated by the arithmetic averages of their answers where the largest average arithmetic within this set of items (4.3) which refers to a great application, and the least arithmetic average was (3.8) which refers also to a great application.

According to the answers of the respondents, this set of items that Zain Telecommunications Company applied planning as one of the areas of competitive intelligence.

9.1.2 Collection

Table (5) the arithmetic mean and standard deviation of the answers of the individuals of the sample of the items about the collection area

No	Item	Mean	Std.	Level
1	Our employees regularly report information about our competitors to appropriate managers.	3.75	0.92	High
2	Our company maintains a network of human contacts outside the company that we call on to answer senior management's questions in a timely and credible fashion.	3.80	1.29	High
3	Our company collects and uses patent and scientific literature to assess emerging technologies.	3.93	1.39	High
4	Our company has a variety of methods for collecting current intelligence, such as organized methods to exploit conferences.	4.30	1.12	High
5	All information collected is checked for accuracy and validated by at least one other source.	3.30	1.04	High
6	We train/prepare our employees every time they go to trade shows, exhibitions, conventions, and so forth about what information they should look for.	3.87	1.12	High
7	Results from exit interviews/job interviews are used in our intelligence system.	3.90	1.25	High
8	We try to collect all available information on our competitors.	3.98	1.68	High
9	Our employees have received formal training on how to collect information.	3.60	1.12	High
10	After collecting information whether it is from a person or from a documented source we classify the source.	3.90	1.16	High
General level		3.87	0.19	High

It obvious from the table (5) that the answers of respondents about this set of items did not differ markedly, mostly refers to a great application, as indicated by the arithmetic averages of their answers where the largest average arithmetic within this set of items (4.3) which refers to a great application, and the least arithmetic average was (3.6) which refers also to a great application.

According to the answers of the respondents, this set of items that Zain Telecommunications Company applied collection as one of the areas of competitive intelligence.

9.1.3 Analysis

Table (6) the arithmetic mean and standard deviation of the answers of the individuals of the sample of the items about the collection area

No	Item	Mean	Std.	Level
1	Our company regularly prepares profiles of our competitors.	3.76	0.73	High
2	Our company uses formal competitor analytical models such as SWOT and gap analysis.	3.40	0.69	High
3	Our company uses formal psychological models such as competitor management profiling.	3.53	0.85	High
4	Our company uses advanced analytical techniques to analyze our competitors and assess their future business implications.	3.85	0.85	High
5	Our company develops profiles of emerging technologies to better understand their characteristics, potential applications and market advantages.	4.20	0.87	High
6	We use information management techniques, such as data-mining, data-warehousing, business intelligence, to understand our customers.	3.57	1.00	High
General level		3.72	0.29	High

It obvious from the table (6) that the answers of respondents about this set of items did not differ markedly, mostly refers to a great application, as indicated by the arithmetic averages of their answers where the largest average arithmetic within this set of items (4.2) which refers to a great application, and the least arithmetic average was (3.76) which refers also to a great application.

According to the answers of the respondents, this set of items that Zain Telecommunications Company applied analysis as one of the areas of competitive intelligence.

9.2.4 Communication

Table (7) the arithmetic mean and standard deviation of the answers of the individuals of the sample of the items about the communication area

No	Item	Mean	Std.	Level
1	Our staff distributes intelligence findings only to those who are authorized to see them.	3.73	1.03	High
2	We have an array of tailored products for the presentation of intelligence findings.	3.68	1.16	High
General level		3.7	0.04	High

It obvious from the table (7) that the answers of respondents about this set of items did not differ markedly, mostly refers to a great application, as indicated by the arithmetic averages of their answers where the average arithmetic for the first item (3.722) which refers to a great application. According to the answers of the respondents, this set of items that Zain Telecommunications Company applied communication as one of the areas of competitive intelligence.

9.2.5 Areas of competitive intelligence

Table (8) arithmetic averages and standard deviations of the level of application of competitive intelligence from managers' point of view

No	Domain	Mean	Std.	Level
1	Planning	4.01	0.16	High
2	Data collecting	3.87	0.19	High
3	Analyzing	3.72	0.29	High
4	Communicating	3.70	0.04	High
General level		3.83	0.14	High

It obvious from table (8) that the arithmetic averages of the application level of competitive intelligence in Zain Telecom Company from the point of view of managers ranges from (4.01- 3.70), the arithmetic average of the level of application of competitive intelligence as a whole was (3.73) with a high degree.

These results give a positive impression about the level of application of competitive intelligence in the following areas (planning, collection, analysis, communication) in Zain Telecommunications Company.

5.2. Second question: Are there statistically significant differences at significance level of ($\alpha \leq 0.05$) from the point of view of managers in Zain Telecom Company about the degree of competitive intelligence application according to different variables of gender, age, years of experience in work and specialization?

From this question four hypotheses have been emerged:

9.2.1 First hypothesis: There are no statistically significant differences in the level of application of competitive intelligence in Zain Telecom Company from the point of view of managers attributed to gender variable.

To examine the hypothesis, (T) test for independent samples was used to investigate the statistical differences on the level of application of competitive intelligence in Zain Telecommunications Company as shown in table 9:

Table (9) the results of the (T) test of the significant differences of competitive intelligence according to gender variable

Domain	Male		Female		T-value	Significance*
	Mean	Std.	Mean	Std.		
Planning	3.66	0.95	3.69	0.75	-0.17	0.86
Data collecting	3.46	1.05	3.56	0.82	-0.83	0.70
Analyzing	3.28	1.03	3.29	1.00	-0.06	0.95
Communication	3.46	1.17	3.50	0.88	-0.12	0.89
Total	3.46	1.01	3.05	0.83	-0.19	0.84

* Statistically significant at the significance level ($\alpha \leq 0.05$)

Through the review of table (9) it is indicated that there are no statistically significant differences at significance level ($\alpha = 0.05$) on the level of application of competitive intelligence in Zain Telecom Company from the point of view of managers which are attributable to gender variable on all areas of competitive intelligence and the total degree where all values of the level of the statistical significance are higher than (0.05), this indicates that there is no difference between the attitudes of males and females on the level of application of competitive intelligence in the company discussed. This result supports the hypothesis of the first variable.

9.2.2 Second hypothesis: There are no statistically significant differences in the level of application of competitive intelligence in Zain Telecom Company from the point of view of managers attributed to age variable.

To examine the hypothesis relevant of age variable, the analysis of variance (ANOVA) was used to identify the statistical discrepancies in the application of competitive intelligence, as shown in table 10:

Table (10) the results of the analysis of variance of significant discrepancies of competitive intelligence according to age variable

Domain	Source of variance	Total Squares	Degrees of Freedom	Mean squares	F Calculated Value	Standard Significance*
Planning	Between groups	0.70	2	0.35	0.41	0.66
	Within groups	109.44	127	0.86		
	Total	110.14	129			
Collecting	Between groups	2.55	2	1.27	1.23	0.29
	Within groups	131.769	127	1.03		
	Total	134.32	129			
Analyzing	Between groups	3.64	2	1.82	1.73	0.18
	Within groups	133.18	127	1.04		
	Total	136.82	129			
Communication	Between groups	3.21	2	1.60	1.26	0.27
	Within groups	161.57	127	1.27		
	Total	164.78	129			
Total Score	Between groups	2.30	2	1.15	1.18	0.30
	Within groups	123.54	127	0.97		
	Total	125.85	129			

*Statistically significant at the significance level ($\alpha \leq 0.05$)

Results shown in the table (10) indicate that there are no statistically significant differences at significance level ($\alpha = 0.05$) on the level of application of competitive intelligence in Zain Telecom Company from the point of view of managers which are attributable to age variable on all areas of competitive intelligence, and the total degree where all values of the level of the statistical significance are higher than (0.05), this indicates that there is no difference between the attitudes of the managers on the level of application of competitive intelligence in the company discussed according to age variable. This result supports the second hypothesis relevant to age variable.

9.2.3 Third hypothesis: There are no statistically significant differences in the level of application of competitive intelligence in Zain Telecom Company from the point of view of managers attributed to years of experience variable.

To examine the hypothesis related to the years of experience variable, analysis of variance (ANOVA) for statistical discrepancies in the application of competitive intelligence was use, as shown table 11:

Table (11) the results of the analysis of variance of significant discrepancies of competitive intelligence according to years of experience variable

Domain	Source of variance	Total Squares	Degrees of Freedom	Mean squares	F Calculated Value	Standard Significance*
Planning	Between groups	0.22	2	0.11	0.12	0.88
	Within groups	109.92	127	0.86		
	Total	110.92	129			
Data collecting	Between groups	0.75	2	0.37	0.35	0.70
	Within groups	133.57	127	1.05		
	Total	134.32	129			
Analyzing	Between groups	2.23	2	1.11	0.35	0.35
	Within groups	133.57	127	1.06		
	Total	134.32	129			
Communicating	Between groups	1.75	2	0.87	0.68	0.50
	Within groups	163.03	127	1.28		
	Total	164.78	129			
Total Score	Between groups	1.05	2	0.52	0.53	0.58
	Within groups	124.80	127	0.98		
	Total	125.85	129			

*Statistically significant at the significance level ($\alpha \leq 0.05$)

Results shown in the table (11) indicate that there are no statistically significant differences at significance level ($\alpha = 0.05$) on the level of application of competitive intelligence in Zain Telecom Company from the point of view of managers which are attributable to years of experience variable on all areas of competitive intelligence, and the total degree where all values of the level of the statistical significance are higher than (0.05), this indicates that there is no difference between the attitudes of the managers on the level of application of competitive intelligence in the company discussed according to years of experience variable. This result supports the third hypothesis relevant to years of experience variable.

9.2.4 Fourth hypothesis: There are no statistically significant differences in the level of application of competitive intelligence in Zain Telecom Company from the point of view of managers attributed to specialization variable.

To examine the hypothesis relevant of specialization variable, the analysis of variance (ANOVA) was used to identify the statistical discrepancies in the application of competitive intelligence, as shown in table 12:

Domain	Source of variance	Total Squares	Degrees of Freedom	Mean squares	F Calculated Value	Standard Significance*
Planning	Between groups	6.02	4	1.50	1.80	0.13
	Within groups	104.12	125	0.83		
	Total	110.14	129			
Collecting	Between groups	7.62	4	1.90	1.88	0.11
	Within groups	126.69	125	1.01		
	Total	134.32	129			
Analyzing	Between groups	9.02	4	2.25	2.20	0.07
	Within groups	128.80	125	1.02		
	Total	136.82	129			
Communicating	Between groups	10.56	4	2.64	2.14	0.08
	Within groups	154.22	125	1.23		
	Total	164.78	129			
Total Score	Between groups	8.05	4	2.01	2.13	0.08
	Within groups	117.79	125	0.94		
	Total	125.85	129			

*Statistically significant at the significance level ($\alpha \leq 0.05$)

Table (12) the results of the analysis of variance of significant discrepancies of competitive intelligence according to specialization variable

Results shown in the table (12) indicate that there are no statistically significant differences at significance level ($\alpha = 0.05$) on the level of application of competitive intelligence in Zain Telecom Company from the point of view of managers which are attributable to specialization variable on all areas of competitive intelligence, and the total degree where all values of the level of the statistical significance are higher than (0.05), this indicates that there is no difference between the attitudes of the managers on the level of application of competitive intelligence in the company discussed according to specialization variable. This result supports the fourth hypothesis relevant to specialization variable.

From the previous results it was indicated that there is consistency in the responses of the individuals of the study sample on the application of competitive intelligence in Zain Telecommunications Company regardless of the personal characteristics of the respondents, this may be attributed to the fact that the discussed company focuses in choosing managers on unified and objective standards, which is reflected on their performance in order to manage the company to enhance its competitive advantage.

10. The results of the study

In the light of the results of the answers of the study questions and the discussion of its hypotheses, the following results were reached:

10.1 The application of competitive intelligence in Zain Telecom Company was high from the point of view of managers in all areas.

10.2 There are no statistically significant differences at the level of significance ($\alpha \leq 0.05$) on the level of application of competitive intelligence in Zain Telecom Company from the point of view of managers due to the personal characteristics of the respondents (gender, age, years of experience).

11. Recommendations

Based on the previous presentation and the results concluded, the following set of recommendations could be submitted which may contribute to increase the level of application of competitive intelligence, including:

- 11.1 To establish a center for the competitive intelligence in Zain Telecom company
- 11.2 To enhance the appropriate infrastructure through the provision of human and material resources and technical support for competitive intelligence in all administrative work.
- 11.3 To encourage managers to exercise competitive intelligence, by giving its material and moral incentives for persons distinguished in applying it.
- 11.4 To take advantage of the experience of certain States and their experience in the application of competitive intelligence and to notice the differences in each country in terms of economic and social systems and technology areas.
- 11.5 To make studies on competitive intelligence in Jordanian companies using different methods and tools.

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