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## **Crowdsourcing and its relationship to crisis management from the perspective of workers in City for soft drink company: A field study**

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**Abstract.** The study aims at indicating the relation between the crowd sourcing and crisis management from the perspective of the employees in the city soft drinks company in Gaza Strip, where the study community represents all 60 workers in the company. A simple random sample of "40" agents was selected, using a comprehensive survey method. The study followed the analytical descriptive approach, based on the identification of a data collection tool, and concluded a number of findings, the most important of which were: A positive correlation between crowd sourcing and crisis management in the company, and it was found that the company was doing crowdsourcing with a high relative weight of 85.06%. It was found that collaboration with the public was very high (86.64%), communication with the public and information gathering was very high (86.42%), and the company's ability to classify information with a very high relative weight of (84.83%), Its ability to choose alternatives was high (82.08%), and the company's ability to manage crises with a high relative weight (83.73%). The results also showed that there were no statistically significant differences in the sample's responses to the relationship of collective counting dimensions, "communication and information gathering from the public, selection of alternatives" to "crisis management, but age-varying dimensions" classification of information, and collaboration with the public, the overall degree of crowd sourcing" was in favor of age (From 20-less than 35), the study also recommended that a behavioral information portfolio be found to monitor the marketing behavior of the public toward the business of the company. And to provide a firm's crisis management department or committee to leverage the crowd outsourcing of expected crises effectively.

**Keywords.** crowdsourcing, crisis management

### **Introduction:**

Crisis management planning is one of the most accurate and complex management processes in organizations, where an unknown future predictive situation has been dealt with, as expected and unexpected, and the management of the organization has a great responsibility to achieve prevention of future crises. This requires sufficient information to build the necessary plans for organizational security and stability, given that the information is the mainstay of the planning process, organizations may be based on internal sources of information represented by their staff, or external sources represented by specialists and consultants. Often due to lack of information, and since the community and environment of the Organization possess information that other sources who contributed to the development of plans may not have, the

Department of contemporary organizations has engaged that community and the public in providing more information to contribute to successful crisis management planning. This was considered by management scientists as a crowd sourcing. It is an expression of the enrichment process for sources of information that may benefit and contribute to the success of crisis-management planning processes.

### **Study problem:**

When the researcher lived in Gaza Strip in occupied Palestine, and through his frequent visits to the city soft drinks company, and asked a number of the company's employees the nature of dealing with the crises that the company is exposed to. It was pointed out that the company is in a state of instability and is exposed to various and successive crises, especially as the public environment in all its components is not stable, and the company's management is constantly trying to develop plans that it believes will reduce the negative impact of expected crises. It depends on several sources when collecting the information that will help it prepare these plans, but there are many unexpected obstacles that the company administration is facing in its inability, as the company has put more than one emergency plan before. However, referring to the company's management, she said that the information available was limited when plans were made for crisis management, which was made clear by suggestions made by some of the public in informal ways, and here the researcher's work is focused on how to make use of the public as an important source of information in preparing the company's crisis management plans. This was defined by the management scientists as the term crowdsourcing, and the researcher has been taken on a study (Al- Jabouri, 2019). When determining the dimensions of crowdsourcing, which are (gathering and sharing information and ideas - addressing problems - cooperating with the public), where the researcher reformulated and arranged them as follows (communication and gathering information from the public - classifying information - choosing alternatives - cooperation with the public)

According to what it said before, we can say that the study problem at the following main question: **What is the relationship between the crowdsourcing and crisis management for the point of view of workers at Al Madyna company for soft drinks?** In response to the main question of the study, the following sub-questions had to be answered:

- What is the level of crowd sourcing from the perspective of the city soft drinks company?
- What is the level of crisis management from the perspective of the city soft drinks company?
- is there a statistically significant relationship at ( $\alpha \leq 0.05$ ) between crowd sourcing and crisis management by city soft drinks trends?
- are there statistically significant differences in sample individuals' responses to the City soft drink Management Group's crisis Management relationship based on variables (age-scientific qualification-years of service)?

### **Study hypotheses:**

- the sample population estimates the level of crowd sourcing from the perspective of the city's employees for soft drinks above the default average.(3)
- the sample population estimates for the degree of crisis management from the perspective of the city's soft drinks company staff exceed the default average (3).
- there is no statistically significant relationship at Level ( $\alpha \leq 0.05$ ) between crowd sourcing and crisis management by city personnel trends for soft drinks.
- there are no statistically significant differences in the sample individuals' responses to the City soft drink crisis Management Group's relationship with variables (age-scientific qualification-years of service).

**Study objectives:**

- Explore the reality of crowdsourcing at the City soft drinks Company.
- statement of the crisis management practice at the City soft drinks Company.
- recognize the reality and nature of the crowd outsourcing relationship in all its dimensions (communication and information gathering from the public – information classification choosing alternatives – collaborating with the public) in crisis management at the City soft drink company.

**Importance of Study:**

**First, the scientific importance lies in the fact that the study:**

It is the first, as far as the researcher is aware, in Palestinian society to deal with the issue of crowd sourcing, especially in the field of private sector work and in the field of crisis management.

establishes a conceptual and conceptual framework that can be relied upon when conducting subsequent research studies.

to promote the concept of the term as a new term with many administrative interns

**Second: Practical importance: The practical importance of the study is:**

- provides real information to decision makers and administrators about company planning processes.
- Results that describe the actual reality of the practice of crowdsourcing and crisis management planning processes, thereby promoting new programs of action for the exploitation of public intellectuals and innovators.

**Study variables:**

The autonomous variable: crowd sourcing processes that are made up of the following dimensions (communication and information gathering from the public – information classification – choice of alternatives – collaboration with the public).

The subsidiary variable: Crisis management planning processes.

**Study limits:**

Objective limit: To explore the trends of the city soft drinks company employees toward the relationship of crowdsourcing to crisis management.

- Human limit: Study terms are applied to all employees of the City soft drink company.
- institutional limitation: This study was implemented as a field study in the City soft drink Company.
- spatial limit: The field study at the City soft drink Company located in the east of Gaza City-Shijaia neighborhood, Gaza Strip-Palestine.
- temporal limit: The terms of study were applied in the first semester of the year 2020/2021.

**Study terms:**

– **crowdsourcing:** He defined it (Kleeman & Voss,2008:13) as a process of collecting, importing, and using the public to obtain information and benefit from their personal experiences related to the main purpose of gathering information.

The researcher defines crowd sourcing as the process of collecting and classifying information from the relevant audiences, and then identifying the best alternatives to it, in order to engage

the public in order to contribute their experience and experience in completing successful crisis management planning processes in the company.

– **crisis management:** (Al-Lami equal,2015:39) quoted (Fink) as saying that crisis management is the ability to remove a lot of risk and be unsure to maximize control over the fate of the organization, which means using imagination to show the worst that can happen, then evaluating alternative decisions before they happen.

The researcher defines crisis management as the sum of the administrative processes that predict the expected crises in the company through integrated analysis of the company's work environment, doing everything necessary to reduce the level of potential damage, and helping to rebalance its work.

- **Al-Madina soft drinks Company:** According to the Palestinian Companies Directory, a leading food industry company, established in 2003 with a pure Palestinian capital, the company produces soft drinks under the name of Ventana, Vital, Saavana, and mineral water in the name of Evin and Jwe. (<https://smartindex.ps/companies>).

### **Previous studies:**

#### **First, studies on the autonomous variable (crowd sourcing):**

The concept of crowd sourcing has been linked to the state of communication and communication between the organization and the public, NASA's own public appeal, innovations and innovations that may not be available to the organization, and many studies have been conducted that indicate this state of communication, such as a study (Thabet, Shaker, 2019). The study used the analytical descriptive approach, and the resolution was used as a data collection tool, distributed to a group of academics at Ninawa University and the Central Technical University. The study has shown that there is a positive correlation between the use of social networks and the generation of knowledge and career innovation. In the same context, Francesco& Ather,2019 carried out a study that highlighted the need to promote the generation of ideas through crowd sourcing as a form of open innovation. The study was conducted to analyze stock-market reactions to crowdsourcing, a forward-looking market-based procedure that demonstrated the impact of crowdsourcing on future corporate stock market profits, and to point out that crowdsourcing can become a valuable resource if companies can derive value from it.

A number of researchers have linked crowd sourcing to the discovery of innovation and the missing knowledge that is relied upon in future planning and oversight processes such as the Jabouri Study, 2019. The aim of this project is to identify the processes of crowdsourcing in activating the strategic vision of the leadership toward choosing a strategy for administrative reform in the governorate of Ninawa, where the total study community is represented in (50) managers, and a small random sample of them was selected, with a number of individuals (40) managers, and the resolution was used as a tool for collecting data. The results showed the impact of crowdsourcing of administrative reform and reform strategies, and it was found that after collaboration with the public was second, owing to the social dimension of administrative leaders and their ability to engage in dialog with society. The study (sufficient, 2018), which aims to illustrate the role of crowdsourcing in improving the innovative capacity of Algerian SMEs, followed the descriptive analytical approach, with the result that the Internet should be integrated with Algerian SMEs so that they can launch crowdsourcing projects. The heads of these institutions should be well empowered about crowdsourcing, which often goes through four complementary stages (preparation-launch-delivery-evaluation). In terms of making use of crowdsourcing for the participatory process among organizations (Xi).

The study aimed at demonstrating the role of inter-firm trade cooperation in the successful performance of suppliers and innovation through crowdsourcing, and aimed to show how suppliers are getting value maximized under the current state of customer value, was conducted by Xi Zhang & others. The data was widely collected from more than 110,000 suppliers from "2010" through "8-2018" through "Kaggle", one of the most popular CTO platforms, and the study showed the importance of supplier collaboration for their performance. The accumulation of experience of cooperation, increased partners and the heterogeneity of the Organization's members had a positive impact on the labor force of suppliers and financial parents as well, and the study had shown that cooperation was better than competition, and suppliers had to explore more flexible ways of cooperating to achieve value.

One of the crowdsourcing models implemented in the Arab World is the launch in 2019 of a national project to design the visual media identity of the UAE, with the aim of projecting the identity of the original country, solidifying its positive image regionally and internationally; and conveying the inspiring and moving story of the UAE, its development, prosperity and its participation with all countries and peoples. (49) Emirati innovators designed three new media identity logos. Thus, the UAE government invited the public inside and outside the country to participate in the voting to choose the slogan that represents in their view the success story of the UAE, and its journey for the next fifty years.

<https://u.ae/ar-AE/information-and-services/business/public-private-people-partnership>

**Second: studies on the subsidiary variable (crisis management):**

Many researchers have been concerned with crisis management in many directions, including those who are concerned with education, who have studied the reality of crisis management and linked it to different variables such as a study (Ghalib, 2020). The study aimed at developing a proposed vision for managing the crises of higher education institutions in the Republic of Yemen during the war, where the study followed the analytical descriptive approach, and the identification was used as a tool for collecting data. The study was applied to a sample of 33 academic experts from the universities of Taiz-Aden-Sana'a-ab-al-Hadidiyah, and the results showed that there were economic, social and educational crises in the higher education institutions caused by war, the most prominent of which were the economic crisis, the social crisis and the educational crisis. The study showed that there were no adequate and tangible treatments for these crises by the Ministry of higher Education. In the same direction, the study (Saleh, 2020) aims at identifying the reality of human resources management in the faculty of the Jordanian universities in the capital Amman governorate and its relation to crisis management from the viewpoint of the heads of academic departments, where the related descriptive approach was followed. The study community is represented in all 301 heads of departments at government universities in the capital Amman, divided into 104 universities. A sample of 246 has been selected to represent the whole society, and the study has shown that the total degree of human resources management practice in college deans has been high, as well as the level of crisis management. It has also shown that there is a positive relationship between human resources management and crisis management at all times. The study (Hassan, 2020) aimed at identifying the effectiveness of administrative decision-making in the directors of private secondary schools in Amman and their relationship to crisis management from the perspective of the staff, followed the descriptive approach of the study and used the identification as a data collection tool, which was distributed to all 457 teachers, supervisors and managers assistants.

In another direction, some researchers went to study the reality of crisis management in governmental and public institutions such as the study (Al-Absi, 2020) that aimed to know the

effect of organizational genes in crisis management at the Ministry of Public Works and Housing - the southern governorates, where the study followed the analytical descriptive approach. The study compacts represented in 156 employees in the ministry, and the researcher relied on the objective sample when collecting the data, which included 120 employees, only 96 of whom responded, the resolution was the data collection tool, and the results showed a medium approval and a relative weight of 60% on the availability of the employees' regulatory genes. It has also shown a moderate approval and relative weight of 65.51% for staff crisis management, and a positive relationship and impact of the regulatory gene pool and crisis management.

The study (Al fadly, thwiekh,2020) contrasts the nature of crisis management in different institutions, aimed at disclosing the nature of the crisis-management framework as a concept, and revealing the different dimensions of crisis management from one profession to another. The sample of the study consisted of 440 individuals working in different occupations in the education, medicine and engineering sectors, and at different ages, and the study found that crisis management in the educational, medical and engineering professions is a general security factor that is organized by the three observation factors. The results showed the similarity in the working structure of crisis management in the Kuwaiti environment among the three professions, and proved that there were statistically significant differences in crisis management among the different professions, according to gender, in favor of males, in experience and in favor of individuals working for more than 15 years, in the scientific qualification, and in favor of those having higher studies. At the job level, it was in favor of the first post level, "Director of a school, specialist-consultant-senior engineer.

### **Comment on previous studies:**

In the light of the researcher's knowledge of previous studies, the Arab studies that dealt with the topic of crowdsourcing as a possible subject of foreign studies have been noted with the researcher's knowledge that the previous studies did not combine the subjects of crowd sourcing and crisis management in a single study, which distinguishes this study. This study is consistent with a number of previous studies in terms of approach, data collection tool and method of analysis, and the researcher has benefited closely from previous studies when the conceptual framework for the study is being developed and when the data collection tool is being built.

### **Theoretical framework**

First, crowdsourcing: As Sevil Bektaş Durmuş, 2020 put it in the forefront of his book, the twenty-first century is the age of communication and information, where the concepts of time and space have changed with modern media technologies, changing the habits and methods of doing business using the Internet. Crowdsourcing initially comes between new applications through which Internet users can share content, and crowdsourcing can be understood as public work or an increasing resource of information, consisting of a combination of mobilization and source, and refers to the use of a large number of human communities for joint action. The term crowdsourcing as of the first decade of the twenty-first century has been common for various purposes, as a concept that illustrates the power of the masses, a way in which communication and Internet technologies are used in advertising and marketing. Al-Jabouri, 2019:119 defined collective outsourcing as an infinite force for innovation, development, and optimal investment of ideas and problem-handling, all are free to engage with an idea, parts, criticism, or quibble of experience, representing an extended theory of stakeholders, and assuming that corporate tendencies to invest them. (Saleha,2018:360) Group outsourcing was defined as the

crowdsourcing process of the organization through the Internet site of crowds or audiences, in order to accomplish some of the tasks that were previously performed within the organization. According to Saleh (2012): 6) the term “collectivized crowdsourcing” was shown by Jeff Hoi in July 2006 as acting by the company or organization to withdraw a job that was performed by its employees, and to entrust it to an unspecified “somewhat significant” network of people, in the form of an open invitation to participate.

From the above it is clear that crowd sourcing can be defined as the processes of gathering and classifying information from audiences relevant to the company's business and thus identifying the best alternatives to it, and to engaging with audiences to contribute their expertise and experience in completing successful crisis management planning processes in the company.

### **Crowdsourcing Dimensions**

1. **Communication with the public:** The process of harnessing all available communication and applications between the company and the public, with the aim of creating a incubator for the views, proposals, knowledge and experience of the public, most important of which is via the Internet, where he pointed out Brian Blake, Deputy Dean of Academic Affairs and Dean of the Graduate School of the University of Miami, said that crowdsourcing uses the input of a crowd of online users to solve problems collaboratively, and that the expansion of the Internet and the popularity of smartphones facilitated the emergence of online crowdsourcing platforms.( <https://ara.sdv3tutorials.com>) This is confirmed by the results of a study (Michael Petrovici,2016) that showed that e-mail and websites of a number of companies were among the most important sources of the study sample's knowledge of the company's advertising campaigns. The state of interaction between the public and those companies is therefore affected, through feedback received.
2. **Information Classification:** Between (Al- , 2009:8) the classification is to adjust the method of compiling documents according to their similarities, a mental process that combines key subjects, and its meaning to represent the general functions of the administration that have a logical, progressive, and complex structure. The purpose of the classification system is to determine the relevance of documents to each other and to control the sum of organic relationships at the level of different functions and at the level of different variations within the same function. According to Nancy Alum, 2019: <https://e3arabi.com/>) the classification is to group similar things together, or the process of putting similar things together, that is, order things based on their similarity and difference, and in the language the thing is classified as being both authentic and distinct from each other.The classification process is clearly based on the inventory and compilation of all information received, and, apart from the random use of that information, the classification processes associated with the collection of all similar information that is logically and practically related to the problem or crisis presented are used to choose what can be used. On the other hand, the exclusion of information that cannot be used.
3. **Choice of alternatives:** (Mohamed, 2013: 35) indicates that the choice of alternatives is a process based on the trade-off between alternatives in the light of their expected results and comparing them with the objectives and criteria that emanate from them, and traditional thinking emphasizes the need to maximize the return or feedback from decision-making. In the same direction (Faraj Allah, 2011:27) according to (Mata et al., 2007::48), the selection process is that alternative that meets the specified standard, or achieves the desired goal and considers that step the most accurate and important step in administrative decision-making; the chosen alternative must be made in the light of the actual circumstances and possibilities available. It is clear that the alternative selection process takes place from a total of

information, documents, proposals, ideas, and initiatives that have been collected from the public and are classified and refined to determine what is better than the other alternatives available, and then to choose them to maximize the benefit, improve the work, solve the problem, or the existing crisis.

4. **Collaboration with the public:** (Al Jabouri,2019:121) collaboration with the public is the process of developing creative and dynamic capabilities to interact with the challenges facing the organization through public participation, empowerment and making them part of the organization's advisers, and collective sourcing provides a market for creative and intellectual knowledge and the opportunity for them to engage and interact with the organization.

**Crisis Management:** Define (Al-Ashiwi, 2020: 120) Crisis management as a special professional process is a set of exceptional actions and efforts to respond quickly, efficiently and effectively to sudden emergencies through the availability of necessary skills and the optimal use of technology and information systems to develop plans and programs to prepare and predict crises before they occur or to mitigate threats when they occur and when they occur Conclusions and recommendations to take advantage of the experience of the crisis and ensure that it does not happen. He agreed with him in the same direction (Al-Absi, 2020:13) as he defined it as a group of scientific measures and movements to overcome the crisis using the best administrative method, to reduce its influence, eliminate its negative aspects and benefit from its positive advantages. Singh & Chahal, 2015:5 has been represented in all the efforts and capabilities employed by the organization to meet changing circumstances, prevent risks and contain them in the interests and future directions of the organization, a situation-based management system that includes clear roles, responsibilities and processes associated with the organization's regulatory requirements, It is clear from the foregoing that crisis management is based on a range of dimensions that can be listed, but not limited to the following:

- represents a set of scientific, informed, and planned actions.
- aims to reduce the negative aspects of the crisis before it occurs.
- plans for crisis management deal with a future predictive state.
- Variable situational data is handled.
- Rely on a range of tools, methods, tools and capabilities available in the Organization.
- it is based on the challenge of the occurrence of these crises
- 

### Study procedures

**First: Curriculum:** Using the researcher the analytical descriptive approach that depends on studying the phenomenon in question, analyzing its data and showing the relationship between its components.

**Second: The study community:** The total study community consists of all 60 employees of the City soft drinks Company for the year 2020m, according to information provided by the company's management. The real society of the study reached 40 factors, as the ears and guards were excluded from the total number of workers.

**Third: Sample study:** The vocabulary of the study was applied to a simple random sample using the comprehensive survey method for all 40 (67%) of the total population. The following table shows the distribution of its vocabulary.

**Table (1): shows the distribution of study sample according to age**

percentage	number	
52.5	21	From20-less than35
32.5	13	From35-less than45
15.0	6	From45-less than60
100.0	40	total

The table shows that the highest proportion of working age is 20-less than 35, which is young, as the nature of work requires mental and physical skills and potential commensurate with this age.

**Table (2): Shows the distribution of sample study by scientific qualification**

percentage	number	
12.5	5	secondary
5.0	2	diploma
77.5	31	B. A
5.0	2	Master's degree
0.0	0	doctorate
100.0	40	total

The table shows that most workers have a bachelor's degree, and this shows that the factory's management cares about the workers' educational attainment because of the mental skills needed to complete their jobs.

**Table (3): Shows the distribution of the sample population by years of service**

percentage	number	
0.0	0	Less than2
7.5	3	From2-less than5
37.5	15	From5-less than10
35.0	14	From10-less than15
10.0	4	From15-less than20
10.0	4	20 and up
100.0	40	Total

The table shows that the large proportion of the employees served in the company between "5-15" years, and that the company is 17 years old, which shows that these employees have joined the company's growth period at the beginning and are still working in it, which is an indication of the state of their job stability.

**Fourth: Study tool:** The researcher has built a resolution according to the five-degree LICRT model by building the two measurements with the number of crowdsourcing (25) paragraphs and the crisis management scale (11) paragraphs, and the approval scores are calculated according to the five-degree scale as follows

**Table (4): The five-scale**

Relative weight		arithmetic average		degree
to	from	to	from	
35.99	20.00	1.79	1.00	<b>Too little</b>
51.99	36.00	2.59	1.80	<b>Little</b>
67.99	52.00	3.39	2.60	<b>medium</b>
83.99	68.00	4.19	3.40	<b>big</b>
100.00	84.00	5.00	4.20	<b>So big</b>

Gauge true: Investigator has verified the validity of the scale in two ways

**Truthfulness of the arbitrators:** The scale was initially presented to a group of specialist professors, who made their views and observations on the appropriateness of the scale paragraphs, the extent to which the paragraphs belong to the scale, and the clarity of their language versions, and in the light of those views some paragraphs were excluded and others modified.

**Internal consistency:** The validity of the internal consistency of the measure was verified by calculating the Pearson correlation coefficient between each of the scale and the overall dimension paragraphs, and the Pearson correlation coefficient was calculated using the Statistical Program (SPSS).

**collective outsourcing measure:**

**Table (5): Shows the coefficient of the association of each group-sourcing paragraph with the overall degree of dimension**

coefficient of relationship	dimension	coefficient of relationship	dimension	coefficient of relationship	dimension	coefficient of relationship	dimension
**0.581	Collaborate with your audience	**0.821	Choose alternatives	**0.418	classification of information	**0.678	Communication and information collection from
**0.576		1		**0.675		1	
**0.814		2		*0.375		2	
**0.821		3		**0.577		3	
**0.703		4		**0.709		4	
**0.714		5		**0.479		5	
**0.848		6				6	

\*\*the tabular at the degree of freedom (38) and at the level of an indication (0.01) = 0.393

\*r tabular at a degree of freedom (38) and at a level Connnotation (0.05) = 0.304

The preceding table shows that the correlation coefficients between each dimension paragraph and the overall degree of its paragraphs are a function at an indication level (0.01, 0.05), and the correlation coefficients ranged between (0.334-0.848), so the scale clauses are true for what they have been measured.

In order to verify the structural validity of the dimensions, the investigator calculated the correlation coefficients between the degree of each dimension of the scale in the overall scale of the scale and the table (6) shows this.

**Table (6): The structural truthfulness of the Censor Standard**

Overall degree	dimension
<b>0.483**</b>	<b>Communication and information collection from the public</b>
<b>0.845**</b>	<b>Classification of information (troubleshooting problems and constraints)</b>
<b>0.636**</b>	<b>Choose of alternatives</b>
<b>0.664**</b>	<b>Collaborate with your audience</b>

\*\*the tabular at the degree of freedom (38) and at the level of an indication (0.01) = 0.393

\*r tabular at a degree of freedom (38) and at a level Connnotation (0.05) = 0.304

From the previous table, it is clear that all dimensions are related to each other and the overall degree of resolution is statistically significant at an indication level (0.01), which confirms that the scale has a high degree of stability and internal consistency.

**B. crisis management standard**

**Table (7): Shows the coefficient of the association of each crisis management paragraph with the overall standard score**

coefficient of relationship	of	coefficient of relationship	of
**0.656	7	**0.541	1
**0.734	8	**0.510	2
**0.816	9	**0.806	3
**0.505	10	**0.558	4
**0.821	11	**0.513	5
		**0.727	6

\*\*the tabular at the degree of freedom (38) and at the level of an indication (0.01) = 0.393

\*r tabular at a degree of freedom (38) and at a level Connnotation (0.05) = 0.304

The preceding table shows that the correlation coefficients between each of the scale paragraphs and the overall degree of its paragraphs are a function at an indication level (0.05, 0.01), and

the correlation coefficients ranged between (0.403-0.715), so the scale clauses are true for what they are measured.

**Stability of the two measurements:**

The researcher performed the steps to make sure that the two measurements were stable after they applied to the survey sample members in two ways, half-segmentation and the alpha-carnbach operator.

**Split-half segmentation method:**

The sampling scores were used to calculate the stability of the two measurements in half-segmentation, calculated the first half of each of the two measurements and the second half of the scores by calculating the correlation coefficient between the two halves, and then adjusted the length using the Spearman-Brown Coefficient equation and table 8 shows this:

**Table (8): Shows the correlation coefficients between the two halves of each gauge prior to adjustment and the stability coefficient after adjustment**

Coefficient stability after adjustment	Correlation coefficient before modification	number of paragraphs	measure
0.904	0.825	6	Communication and information collection from the public
0.900	0.819	6	Classification of information (troubleshooting problems and constraints)
0.874	0.734	6	Choose of alternatives
0.865	0.856	*7	Collaborate with your audience
0.894	0.891	*25	The overall degree of social commitment
0.949	0.944	*11	Overall degree of crisis management

•Gutane's equation was used because the halves are not equal

The previous table shows that the stability coefficient for coheping (0.894) and the crisis management scale (0.949) indicate that the two measurements have a high degree of stability that the researcher can be assured to apply to the study sample.

**Alpha Kronbach method:**

The researcher used another method of calculating stability, the alpha-carnbach method, to find the stability coefficient of the two measurements, where he obtained the value of the alpha coefficient for each of the two measurements.

**Table (9): Shows the parameters of alpha carnabach for each of the two measurements**

Alpha carnabakh coefficient	Number of paragraphs	measure
0.950	6	Communication and information collection from the public
0.935	6	Classification of information (troubleshooting problems and constraints)
0.911	6	Choose of alternatives
0.901	7	Collaborate with your audience
0.923	25	The overall degree of social commitment
0.982	11	Overall degree of crisis management

The previous table shows that the stability coefficient for coheping (0.923) and the crisis management scale (0.982) indicate that the two measurements have a high degree of stability that the researcher can be assured to apply to the study sample.

**Study results and interpretation:**

Answer to question 1: "What is the level of crowdsourcing from the perspective of the city's soft drinks company? To answer this question, the researcher formulated the following hypothesis: Sample members' estimates of the level of social sourcing from the perspective of the city soft drinks company employees exceed the default average (3). In order to verify the hypothesis, the researcher used repetitions, averages, percentages, and the value of "t", and the following table shows this:

**Table (10): Shows the frequencies, averages, standard deviations, and relative weight of each dimension of the scale as well as its order**

order	Significance value	Value of "t"	relative weight	standard deviation	Average	paragraph
2	0.000	30.012	86.42	0.278	4.321	Communication and information collection from the public
3	0.000	24.878	84.83	0.316	4.242	Classification of information (troubleshooting problems and constraints)
4	0.000	16.570	82.08	0.421	4.104	Choose of alternatives
1	0.000	19.337	86.64	0.436	4.332	Collaborate with your audience
	0.000	32.801	85.06	0.242	4.253	The overall degree of social commitment

It is clear from the previous table that cooperation with the public was ranked first in relative weight (86.64%), which is very high and logical, as the researcher attributes this result to the fact that the audience of the company's clients represents the greatest value as its estimate, as the audience represents the main incubator of the company's work and products. Collaboration with the public makes it an integral part of the productive process and a state of satisfaction, and if public satisfaction is achieved, it is prepared to interact with the rest of the collective feast. Following this contact and information gathering from the audience, the researcher ranked second in relative weight (86.42%), which is very high, the researcher attributes this result to the company's great ability and ability to communicate well with the public through various means. This was followed by the ranking of information in third place with a relative weight (84.83%), which is very high, and the researcher attributed it to the existence of a strict administrative system capable of evaluating information and of paying attention to what it benefits in terms of obtaining and classifying it in a way that enables the company to retrieve and benefit from that information when it is needed. The choice of alternatives followed, ranking fourth in relative weight (82,08) This is a high percentage. The total degree of collective commitment has obtained a relative weight (85.06%). This is a high percentage, because the researcher attributes this finding to the fact that the nature of the company's work is closely and organically linked to the public, that the success or failure of the company is linked to the satisfaction of the public, and that the state of interaction between the company and the public and the means of reaching out to it will benefit the company in obtaining new sources of information, ideas, and innovations.

In order to explain the findings regarding the level of crowdsourcing from the perspective of the city soft drinks company employees, the researcher prepared the following table indicating the dimensions of the resolution in the following form:

**Table (11): Shows the repetitions, averages, standard deviations, and relative weight of each of the first-dimension paragraphs: Communication and information collection from the audience**

order	Significance value	Value of "t"	Relative weight	Standard deviation	Average	paragraph	rank
3	0.000	19.071	90.50	0.506	4.525	The company continually communicates with the public to gather information from them	1
1	0.000	23.167	94.00	0.464	4.700	The company provides diverse and relevant communications to all audiences	2
6	0.000	9.276	77.00	0.580	3.850	The company relies on its distributors to collect information from the public	3
2	0.000	20.962	92.50	0.490	4.625	The company follows up on public communications such as "Facebook-Twitter-, affiliate-, and more" To collect the relevant information	4
4	0.000	8.596	84.00	0.883	4.200	The company provides specialized websites for gathering public opinions	5
5	0.000	9.826	80.50	0.660	4.025	There is a specialized communication committee with the public in the company	6
	<b>0.000</b>	<b>30.012</b>	<b>86.42</b>	<b>0.278</b>	<b>4.321</b>	<b>Overall degree for dimension</b>	

It is clear from the previous table that the highest paragraph in the dimension was paragraph (2) "the Company provides a variety of and appropriate communication for all audiences", which was ranked first by a relative weight of (94.00%), which is very high. In the opinion of the researcher, this shows that there are studies and market information that ignorant the company categorizes its audience, and has shown each category a way and a means of communication that is appropriate for the reciprocal relationship between that group and the company. The lowest paragraph in the dimension was paragraph (3), "the company relies on its distributors to collect information from the public," which ranked the last in relative weight (77.00%), a high percentage, according to the researcher, the result is that the company actually depends on the distributors of its products as a link with its audience. Whether it's trucking distributors or retailers in different geographic areas, the distributor can directly engage the audience and can learn about their requirements, needs and observations on the company's products directly, which is an important source of information.

The overall degree of distance has been given a relative weight of (86.42%), which is very high from the point of view of the researcher, which reflects the ability and potential of the company to provide communication with different audiences, and its ability to understand the importance of communicating with the public through marketing research that identifies the needs and needs of the public. It makes it a partner in information and in trends that the company believes are reaching the public's satisfaction, based on information that the audience itself has issued when it completes its production operations.

**Table (12): Shows the repetitions, averages, standard deviations, and relative weight of each dimension 2 paragraph: Classification of information (troubleshooting problems and constraints)**

order	Significance value	Value of "t"	Relative Weight	Standard deviation	Average	paragraph	rank
1	0.000	24.126	94.50	0.452	4.725	The company receives information from the public seriously and with interest	1
5	0.000	7.415	79.50	0.832	3.975	There is a competent screening committee for the views and suggestions of the public	2

order	Significance value	Value of "t"	Relative Weight	Standard deviation	Average	Paragraph	Rank
4	0.000	14.844	83.50	0.501	4.175	The company removes any obstacles that impede the access of public information to it	3
2	0.000	18.002	88.50	0.501	4.425	The company categorizes audience information by importance and priority	4
6	0.000	8.920	78.50	0.656	3.925	The company continually talks about the audience information that it has stored	5
3	0.000	18.320	84.50	0.423	4.225	The company directs each department to take advantage of the information related to its work	6
	<b>0.000</b>	<b>24.878</b>	<b>84.83</b>	<b>0.316</b>	<b>4.242</b>	<b>Overall degree for dimension</b>	

It is clear from the previous table that the top paragraph in dimension was paragraph (1) "the company receives information from the public seriously and with interest", which ranked first with a relative weight of (94.50%), which is very high, from the point of view of the researcher, expressing the company's management orientation toward the customer. It is convinced that the information received from the public is the basis of the company's production processes. The lowest paragraph in the dimension was paragraph (5) "the company continuously talks the information of its stored audience", which ranked the last place with a relative weight of (78.50%), which is high, attributed by the researcher to the continuous market dynamic, and the state of change in consumer preferences under the presence of a state of intense competition from domestic and foreign companies. The company believes that updating information from the public will help to develop future plans of action.

While the overall degree of distance has a relative weight of (84.83%), which is very high, and from the point of view of the researcher, it expresses the great interest of the company in the information coming from the public as the base from which it will start its business. Identifying the problems and obstacles facing the company's business from the public point of view will require the company to address them in line with the established business plans and harness all the potential.

**Table (13): Shows the repetitions, averages, standard deviations, and relative weight of each of the third-dimension paragraphs: Choice of alternatives**

order	Significance value	Value of "t"	Relative weight	Standard deviation	average	Paragraph	Rank
6	0.002	3.286	71.50	1.107	3.575	The company can only take the information that is relevant to it	1
4	0.000	10.981	82.50	0.648	4.125	The company can distinguish the best from the audience's suggestions	2
5	0.000	9.799	81.50	0.694	4.075	The company provides scientific selection methods among the alternatives offered	3
1	0.000	17.667	86.50	0.474	4.325	The company can evaluate the alternatives offered in all respects	4
3	0.000	14.697	84.00	0.516	4.200	The best alternative is based on specific business systems	5
1	0.000	17.667	86.50	0.474	4.325	The company only cares about viable alternatives and options	6
	<b>0.000</b>	<b>16.570</b>	<b>82.08</b>	<b>0.421</b>	<b>4.104</b>	<b>Overall degree for dimension</b>	

It is clear from the previous table that the highest paragraph in the dimension was paragraph (4.6), "the company can evaluate the alternatives offered in all respects, and the company is interested in the alternatives and the applicable options only", which was ranked first with a

relative weight of (86.50%), which is very high. From the researcher's point of view, statement (6) is fully linked to statement (4) so that if the company can actually evaluate the alternatives offered, it can sort what is applicable from them, and this shows that the company is away from the random and working according to studied mechanisms. The lowest paragraph in the dimension was paragraph (1), which stipulates that "the Company can take only the right amount of information provided", which ranked the last place with a relative weight of (71.50%), which is a high percentage, according to the researcher, as the Company works according to clear and specific plans and targets. While the total degree of distance has a relatively high weight of (82.08%), the researcher attributes this result to the fact that the company can evaluate, sort, and classify the available alternatives in accordance with its established capabilities, plans and goals, and use its capabilities to exploit the best alternative according to the priority and importance of them and achieving their goals.

**Table (14): Shows the repetitions, averages, standard deviations, and relative weight of each fourth dimension paragraph: Collaboration with the public**

order	Significance value	Value of "t"	Relative weight	Standard deviation	average	Paragraph	rank
3	0.000	17.847	88.00	0.496	4.400	The company is interested in the public's negative or positive views on its products	1
4	0.000	14.850	87.50	0.586	4.375	The company interacts with creative new people	2
7	0.000	8.897	81.50	0.764	4.075	New idea owners are involved in developing the company's performance	3
2	0.000	12.238	89.00	0.749	4.450	The company intervenes with public proposals when formulating its new forecasts	4
5	0.000	11.049	84.00	0.687	4.200	The company adopts and rewards innovators who have made proposals	5
1	0.000	19.068	94.00	0.564	4.700	The company takes a good view of the public at every stage of its work	6
6	0.000	10.981	82.50	0.648	4.125	The company feels the public has taken its proposals into its new business	7
	<b>0.000</b>	<b>19.337</b>	<b>86.64</b>	<b>0.436</b>	<b>4.332</b>	<b>Overall degree for dimension</b>	

It is clear from the previous table that the highest paragraph in the dimension was paragraph (6) "the company is in harmony with the public's opinion at each stage of its work", which was ranked first with a relative weight of (94.00%), which is very high. The researcher attributes this result to the conviction and understanding of the company's management that the public is the foundation for the success or failure of the company and that the public's attitudes and opinions toward the company and its products determine the levels of sales and the nature of the products that meet the expectations and requirements of the public. The lowest paragraph of the dimension was paragraph (3), which stipulates that "the new ideas are involved in the development of the company's performance", which was ranked last by a relative weight of (81.50%), which is a high percentage. This demonstrates from the researcher's point of view the strength of the relationship between the company and its audience in terms of practical interaction with any proposals or ideas that would develop the company's business, and that engaging new people with ideas and innovations in the development of the company's business is an advanced belief in the importance of the company's management. While the overall degree of distance has a relatively high weight of (86.64%), the researcher attributes this result to the conviction of the company's management of the importance of the company's surroundings and the importance of its audiences, and believes in production plans based on the needs of the public, away from the random production based on the same company's convictions, ideas and

tastes. This result is also expressed in the view of the researcher who believes that any production process must be based on the information component or the so-called marketing research, which leads the company's management to reach the public to obtain the information that qualifies it for the planning and production processes required for the same audience.

To get the information that qualifies them for the planning and production processes needed for the same bass.

Answer to question 2: "What is the level of crisis management from the perspective of the city's soft drinks company? To answer this question, the researcher formulated the following hypothesis: The sample population estimates for the degree of crisis management from the perspective of the city soft drinks company staff exceed the default average (3). In order to verify the hypothesis, the researcher used repetitions, averages, percentages, and the value of "t", and the following table shows this:

**Table 15: Shows the frequencies, averages, standard deviations, and relative weight of each crisis management paragraph as well as its order**

order	Significance value	Value of "t"	Relative Weight	Standard deviation	average	Paragraph	rank
7	0.000	9.799	81.50	0.694	4.075	The company monitors the indicators of a crisis before it occurs	1
5	0.000	14.559	85.00	0.543	4.250	The company analyzes the surrounding environment variables for fear of a crisis	2
9	0.000	7.050	80.50	0.920	4.025	The company has a crisis management department	3
2	0.000	17.737	87.50	0.490	4.375	Managing a company can cope with crises with strength and competence	4
4	0.000	14.732	87.00	0.580	4.350	The company has alternative business planning when a crisis occurs	5
3	0.000	14.850	87.50	0.586	4.375	A trained staff is available in the company to cope with expected crises	6
1	0.000	15.584	89.50	0.599	4.475	The company takes lessons and lessons from past crises when making plans To deal with future crises	7
6	0.000	10.356	82.00	0.672	4.100	The company is based on public proposals in the face of a crisis	8
10	0.000	8.421	80.00	0.751	4.000	The company shares with the public when the balance of business is restored	9
8	0.000	8.897	81.50	0.764	4.075	The Company cooperates with internal and external parties in the face of the crisis	10
11	0.000	6.643	79.00	0.904	3.950	The company holds training workshops for crisis management personnel	11
	0.000	17.298	83.73	0.434	4.186	<b>Overall degree for dimension</b>	

It is clear from the previous table that the highest paragraph in the dimension was paragraph (7), which stipulates that "the company takes lessons and lessons from previous crises when it puts forward plans to face expected crises in the future", which ranked first with a relative weight of (89.50%), which is very high. The researcher attributes this result to the fact that Gaza Strip is exposed to successive crises, especially as it is occupied. The company's management is considered to be one of the many-trend crises, whether economic, political or even security, that have been experienced in the previous years, based on the data of these crises in all their details when preparing their future plans of work. The lowest section of the dimension was paragraph (11), which stipulates that "the company holds training workshops for crisis management personnel", which took the last place with a relative weight of (79.00%), a high percentage, from the researcher's point of view that the recurrence of crises in the Gaza Strip.

Make the company's management develop a training program for its staff to train them to cope with these recurring crises as they occur, delivering the best results for the lowest losses. While the overall degree of distance has been given a relative weight of (83.73%), which is a high percentage, the researcher attributes this result to the fact that the level of understanding of the company's crisis management is high, and this may be the result of the repeated crises that the company has experienced since its establishment. I care how to deal with the expected crises through many actions and programs of action that ensure that the company's risk level is reduced in future crises.

Answer to question 3: Is there a statistically significant relationship at ( $0.05 \leq \alpha$ ) between group-level sourcing and crisis management by city soft drinks trends? To answer this question, the researcher formulated the following hypothesis: There is no statistically significant relationship at ( $0.05 \leq \alpha$ ) between crowdsourcing and crisis management according to the directions of city soft drinks employees. To verify this hypothesis, the investigator used the Pearson correlation coefficient and the following table shows this:

**Table (16): Pearson's correlation coefficient shows the combination of crowdsourcing and crisis management according to trends of the city's soft drinks company**

Significance level	Overall degree of crisis management	
It has an indication at 0.01	<b>0.432**</b>	<b>Communication and information collection from the public</b>
It has an indication at 0.01	<b>0.582**</b>	<b>Classification of information (troubleshooting problems and constraints)</b>
It has an indication at 0.01	<b>0.648**</b>	<b>Choose of alternatives</b>
It has an indication at 0.01	<b>0.531**</b>	<b>Collaborate with your audience</b>
It has an indication at 0.01	<b>0.806**</b>	<b>Overall degree</b>

T tabular at degrees of freedom (38) and at an indication level (0.01) = 0.393  
\*r tabular at a degree of freedom (38) and at a level Connnotation (0.05) = 0.304

The previous table shows a positive correlation with a statistical significance of 0.01) Group outsourcing and crisis management according to the directions of the city soft drinks company. The researcher attributes this result to the existence of a common factor among the two variables, namely "information", as the collective counting aims at reaching new sources of information, innovations and innovations that were not found in the same company, and that crisis management depends on information in planning, organizing, directing, monitoring and evaluation operations, so this result is very logical. Crisis management in the company in partnership with the public will lead to better results, especially as the overall vision of problem-solving and crisis management will be more effective than the individual's vision, and the public's vision will be more effective than that of the company alone. A long-form positive relationship enhances interest in crowdsourcing better. The more crowdsourcing, the better the company can manage a crisis.

Answer to question 4 of the study: Are there statistically significant differences in the sample individuals' responses to the City soft drink Management Group's crisis Management relationship based on variables (age-scientific qualification-years of service)? To answer this question, the investigator has formulated the following subclaims:

**The first hypothesis:** There are no statistically significant differences in the sample individuals' responses to the CTO relationship at the City soft drink Company due to the life variable (20-

under 35, 35-under 45, 45-under 60). To answer this hypothesis, the researcher used the one-way ANOVA method of analysis.

**Table (17): Source of contrast, sum of squares, degrees of freedom, average of squares, value of "f", and level of significance are attributable to the age variable**

Significance level	Significance value	Value of "t"	The average of squares	degrees of freedom	Sum of squares	Contrast source	Dimension
Is not a statistical function	0.363	1.041	0.080	2	.161	Among groups	<b>Communication and information collection from the public</b>
			0.077	37	2.861	Within groups	
				39	3.022	Total	
It has an indication at 0.01	0.000	13.176	0.808	2	1.616	Among groups	<b>Classification of information (troubleshooting problems and constraints)</b>
			0.061	37	2.270	Within groups	
				39	3.886	Total	
Is not a statistical function	0.168	1.871	0.318	2	.636	Among groups	<b>Choose of alternatives</b>
			0.170	37	6.291	Within groups	
				39	6.927	Total	
It has an indication at 0.01	0.009	5.429	0.840	2	1.680	Among groups	<b>Collaborate with your audience</b>
			0.155	37	5.724	Within groups	
				39	7.404	Total	
It has an indication at 0.01	0.005	6.111	0.283	2	.565	Among groups	<b>Overall degree for crowdsourcing</b>
			0.046	37	1.711	Within groups	
				39	2.276	Total	
It has an indication at 0.01	0.003	6.802	0.986	2	1.973	Among groups	<b>Overall degree of crisis management</b>
			0.145	37	5.365	Within groups	
				39	7.338	Total	

At a degree of freedom (2.37) and at an indication level (0.01) = 5.21

Wrap the tabular at a degree of freedom (2.37) and at a level Connotation (0.05) = 3.25

The previous table shows that the calculated value of P is less than the tabular value of P at an indication level (0.05) in communication, information gathering from the public, and the choice of alternatives, i.e. there are no statistically significant differences attributable to the age variable. The researcher attributes this result to the fact that the task of communicating with the public is the task of every worker in the company regardless of age, managerial level and job level in the company, and as to the dimension of choosing alternatives, this result relates only to the level of senior management in the company regardless of the age of the employees. This is a logical result from the researcher's point of view.

The value of the P calculated is greater than the value of the P tabular at the level of an indication (0.05) in the classification of information (troubleshooting problems and constraints), collaboration with the public, and the overall degree of collective commitment and crisis management, i.e. differences of statistical significance attributable to the age variable. To see the direction of the differences, the researcher used the test of Shaifi al-Badi and the following table shows this:

**Table (18): Scheffi's test in the dimensions of crowdsourcing and crisis management is attributed to life-changing**

From45-less than60	From35-less than45	From20-less than35	Classification of information (troubleshooting problems and constraints)	
3.944	4.077	4.429		
		0	4.429	From20-less than35
	0	*0.352	4.077	From35-less than45
0	0.132	*0.484	3.944	From45-less than60
From45-less than60	From35-less than45	From20-less than35	Collaborate with your audience	
3.857	4.352	4.456		
		0	4.456	From20-less than35
	0	0.104	4.352	From35-less than45
0	0.495	*0.599	3.857	From45-less than60
From45-less than60	From35-less than45	From20-less than35	Overall degree of crowdsourcing	
4.080	4.154	4.364		
		0	4.364	From20-less than35
	0	*0.210	4.154	From35-less than45
0	0.074	*0.284	4.080	From45-less than60
From45-less than60	From35-less than45	From20-less than35	Overall degree of crisis management	
4.091	3.902	4.390		
		0	4.390	From20-less than35
	0	*0.488	3.902	From35-less than45
0	0.189	*0.299	4.091	From45-less than60

The previous table shows differences between ages 20-under 35 and ages 35-under 45 for ages 20-under 35, ages 20-under 35, and ages 45-under 60 for ages 20-under 35, and differences in other ages were not clear. The researcher attributes this result to the fact that the younger employees are the ones who interact with the public more than the elderly, through the nature of their business as men of sale and truck distributors, for example, and thus they are an important source of information for the company. Most of the elderly are employed in established jobs within the company and their level of interaction with the public is limited. The perception of young workers to classify information and collaborate with the public is different from older persons, especially when making use of public information in managing crises that are occurring or are expected.

**Second hypothesis:** There are no statistically significant differences in the sample individuals' responses to the CMS crisis management relationship of the City soft drink Company due to the variable of the scientific qualification (secondary, diploma, Bachelor, Master, Ph.D.). To answer this hypothesis, the researcher used the one-way ANOVA method of analysis.

**Table (19): Source of contrast, sum of squares, degrees of freedom, average of squares, value of "f", and level of significance are attributable to the variable of the scientific qualification**

Significance level	Significance value	Value of "f"	The average of squares	degrees of freedom	Sum of squares	Contrast source	dimension
Is not a statistical function	0.095	2.289	0.161	3	.484	among groups	Communication and information collection from the public
			0.070	36	2.537	within groups	
				39	3.022	total	

Significance level	Significance value	Value of "f"	The average of squares	degrees of freedom	Sum of squares	Contrast source	dimension
Is not a statistical function	0.156	1.850	0.173	3	.519	among groups	<b>Classification of information (troubleshooting problems and constraints)</b>
			0.094	36	3.367	within groups	
				39	3.886	total	
Is not a statistical function	0.082	2.422	0.388	3	1.163	among groups	<b>Choose of alternatives</b>
			0.160	36	5.764	within groups	
				39	6.927	total	
Is not a statistical function	0.840	0.279	0.056	3	.168	among groups	<b>Collaborate with your audience</b>
			0.201	36	7.236	within groups	
				39	7.404	total	
Is not a statistical function	0.214	1.569	0.088	3	.263	among groups	<b>Overall degree of crowdsourcing</b>
			0.056	36	2.013	within groups	
				39	2.276	total	
Is not a statistical function	0.137	1.961	0.344	3	1.031	among groups	<b>Overall degree of crisis management</b>
			0.175	36	6.307	within groups	
				39	7.338	total	

At a degree of freedom (3.36) and at an indication level (0.01) = 4.38  
 Wrap the tabular at a degree of freedom (3.36) and at a level Connotation (0.01) = 2.86

The previous table shows that the calculated value of P is less than the tabular value of P at an indication level of (0.05) in all the dimensions of the collective commitment and overall degree of crisis management, i.e. there are no statistically significant differences attributable to the scientific qualification variable. The researcher believes that this result is logical and attributed to the fact that the company's field of work is not governed by a certain level of education for the employees, but its work depends on the skilled, technical and individual abilities of the employees. This is about the change of study, whether collective or crisis management.

**The third hypothesis:** There are no statistically significant differences in sample individuals' responses to the City soft drink Management Group crisis Management relationship due to the Service year variant (less than 2, 2-less than 5, 5-less than 10, 10-less than 15, 15-less than 20, 20 or more). To answer this hypothesis, the researcher used the one-way ANOVA method of analysis.

**Table (20): The source of variance, the sum of squares, the degrees of freedom, the average of squares, the value of "a", and the level of significance are attributable to the variable years of service**

Significance level	Significance value	Value of "f"	The average of squares	degrees of freedom	Sum of squares	Contrast source	Dimension
Is not a statistical function	0.142	1.844	0.131	4	.526	among groups	<b>Communication and information collection from the public</b>
			0.071	35	2.496	within groups	
				39	3.022	total	
Is not a statistical function	0.051	2.630	0.225	4	.898	among groups	<b>Classification of information (troubleshooting problems and constraints)</b>
			0.085	35	2.988	within groups	
				39	3.886	total	
	0.328	1.201	0.209	4	.836	among groups	

Significance level	Significance value	Value of 'F'	The average of squares	degrees of freedom	Sum of squares	Contrast source	Dimension
Is not a statistical function			0.174	35	6.091	within groups	<b>Choose of alternatives</b>
				39	6.927	total	
Is not a statistical function	0.098	2.126	0.362	4	1.447	among groups	<b>Collaborate with your audience</b>
			0.170	35	5.956	within groups	
Is not a statistical function	0.842	0.350		4	.088	among groups	<b>Overall degree of crowdsourcing</b>
			0.063	35	2.189	within groups	
				39	2.276	total	
Is not a statistical function	0.388	1.065	0.199	4	.796	among groups	<b>Overall degree of crisis management</b>
			0.187	35	6.542	within groups	
				39	7.338	total	

At a degree of freedom (4.35) and at an indication level (0.01) = 3.89  
Wrap the tabular at a degree of freedom (4.35) and at a level Connotation (0.01) = 2.63

The previous table shows that the calculated value of P is less than the tabular value of P at an indication level of 0.05 in all the dimensions of the collective commitment and overall degree of crisis management, i.e. there are no statistically significant differences attributable to the year's variable of service. The researcher attributes this result to any new or old employees, regardless of the organizational level, who will follow the methods, methods and procedures adopted in the company, and will deal with the same trends and cultures that govern the company's relationship with the public and the mechanisms for interacting with it. The company employees' view of the collective outsourcing operations as the public represents an additional source of information that will be equal when managing any of the company's crises, and that the crisis management data do not require when it occurs to deal with the old non-new worker. It is a question of the ability and skill of any one of them to deal with the data, inputs and effects of that crisis, going to reduce or eliminate its expansion.

### Conclusions of the study:

The study showed that there is a positive correlation between crowdsourcing and crisis management according to the trends of employees in the company, where the company practices crowdsourcing at a high rate, communicates with the public, collects information from it at a very high rate, and the alternatives are chosen at a high rate. Collaboration with the audience is also very high. The company also practices crisis management at a high rate. Provides diverse and relevant communications to all audiences at a very high rate, and the company relies on its distributors to collect information from the public at a high rate. The information is taken seriously by the public at a very high rate. The information of the audience that has been stored is high, and you can evaluate the alternatives offered in all respects, and you are interested only in the alternatives and the options that are applicable came very high. The company can also take only the right amount of information provided at a high rate, and the company is very highly engaged in every stage of its business, and the new people are involved in developing the company's performance at a high rate.

**Recommendations of the study:** In the light of the findings, a number of recommendations have been formulated as follows:

- communicate with the public in different ways than a truck distributor.

- create a behavioral information portfolio to monitor the marketing behavior of the public toward the business of the company.
- the company interacts with the public, particularly in the area of community responsibility.
- to provide a firm's crisis management department or committee to leverage the collective outsourcing of expected crises effectively.

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