



THE IMPACT OF INTERNATIONAL STANDARD ISO 9001 IN ACHIEVING COMPETITIVE ADVANTAGE (AN ANALYTICAL STUDY IN THE GENERAL COMPANY FOR THE AUTOMOTIVE INDUSTRY - ALEXANDRIA)

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Abstract: The research aims mainly to determine the impact of the international standard ISO 9001 with its sub-dimensions in achieving competitive advantage at the level of the General Company for the Automotive Industry - Alexandria, and based on a major problem that was diagnosed with several questions, the extent to which the influencing relationships between variables are realized in the field. The international standard ISO 9001 was adopted as an independent variable, which consists of three dimensions (*Continuous improvement- Prevention of nonconformities and Customer satisfaction focus*), and the competitive advantage was adopted as a dependent variable, which consisted of four dimensions (*cost - quality - delivery and flexibility*). The General Company for the Automotive Industry, which numbered (95) workers (engineers, technicians), and for analyzing the data, a set of statistical methods were used available in the statistical program (SPSS.V.25), and the research reached several conclusions, including (that the company is fully prepared to develop the standard The international ISO 9001 standard with setting all documents for the quality management system and establishing records as evidence of conformity to those requirements.), and the research resulted in a set of recommendations, including (inviting the company's management to pay more attention to the international standard ISO 9001 for its effective role in improving the competitive advantage and ensuring survival, growth and development).

Keywords: ISO 9001 International Standard, Competitive Advantage.

Introduction: The subject of the ISO 9001 international standard is one of the topics that aroused the interest of many researchers and industrial organizations, due to the role it plays in enhancing the competitive position in organizations that have applied such systems, especially after the multiplicity and complexity of the needs and desires of customers or beneficiaries who are now looking for products. High quality to achieve the needs and requirements of the labor market, and through that quality systems are one of the most important advantages that enhance the competitive position of the productive organization and achieve its goals. From quality through the application of the requirements of the quality management system and the international standard ISO 9001, as manufacturing is witnessed in Iraq, especially after the COVID-19 pandemic, in order to reach a level of quality that achieves competition in the application of international standards for manufacturing, which is a matter that is considered a shift by production organizations from their form Therefore, analyzing the impact relationship data between the international standard ISO 9001 and the dimensions of competitive advantage is one of the important and vital matters in organizations, and benefiting from the results of those studies will contribute to achieving the organization's goals of survival, growth, and continuity in the market strongly. Based on what has been mentioned, this research was divided into four sections, as follows:

First topic: the methodology of the research, the second topic: the theoretical framework of the research, the third topic: the practical framework of the research, the fourth topic: conclusions and recommendations

FIRST TOPIC: RESEARCH METHODOLOGY

1- research problem

The automobile industry is an investment industry that aims to make a profit by providing advanced products represented by (cars) that are governed by scientific standards. Therefore, industrial companies must walk and catch up with the scientific and technological developments that the world is witnessing in the field of quality management and international standards. ISO 9001, which has become a competitive advantage in every company in the world, hence the problem of the study comes through an attempt by the two researchers to know the objectives of the international standard ISO 9001 and its impact on achieving the competitive advantage in the company, and for the purpose of determining the nature of the problems and addressing them within the searchable space, a set of questions were asked: -

- 1- What is the level of availability of the ISO 9001 variable in the General Company for Automotive Industry - Alexandria?
- 2- What is the level of availability of the competitive advantage variable in the General Company for the Automotive Industry - Alexandria?
- 3- What is the level and direction of the impact relationship between ISO 9001 and competitive advantage?

2- Importance of The Research

The importance of this research stems from the field and intellectual significance of its variables (standard ISO 9001, competitive advantage), and this importance can be described in the following points:

- 1- The significant role that ISO 9001 plays in enhancing competitive advantage.
- 2- The importance lies in identifying the reality of the variables in the researched company.
- 3- The academic importance of the research lies in bridging part of the knowledge gap by creating a unified model that combines the variables together.

3- Research Objectives

The research aims mainly to determine the impact of ISO 9001 with its sub-dimensions in enhancing the competitive advantage at the level of the General Company for the Automotive Industry - Alexandria. There are other sub-objectives according to the structure and axes of the research as follows:

- 1- Identifying weaknesses in the application of ISO 9001 in the General Company for the Automotive Industry - Alexandria.
- 2- Building a quality system based on ISO 9001 in the General Company for Automotive Industry - Alexandria.
- 3- Determining the impact relationship between the indicators of ISO 9001 and achieving the competitive advantage in the General Company for the Automotive Industry - Alexandria.

4- Hypothetical Scheme Of Research

The figure below represents the hypothetical scheme of the research, which shows the relationship between the independent variable (standard ISO 9001) and the dependent variable (competitive advantage):

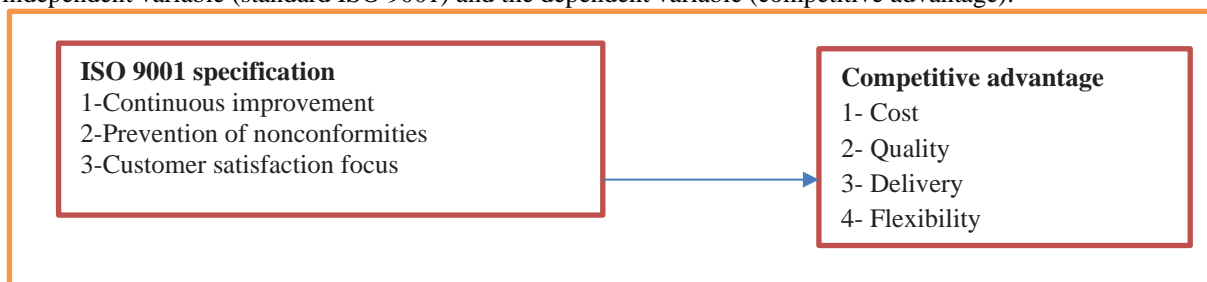


Figure (1) hypothetical research model

Source: prepared by the two researchers

It is clear from the above figure that the hypothetical scheme of the research consists of two variables, the first is the ISO 9001 standard, which will be measured in three dimensions (continuous improvement - Prevention of nonconformities - Customer satisfaction focus), and the dependent variable, which will be measured in four dimensions (cost - quality - delivery flexibility).

5- Research hypotheses

The research is based on the following hypothesis (there is a positive impact relationship with statistical significance for ISO 9001 with its dimensions and the competitive advantage variable). Six sub-hypotheses branch out from this hypothesis:

1. There is a statistically significant effect relationship for the continuous improvement dimension and the competitive advantage variable.
2. There is a statistically significant effect relationship for the dimension of preventing violations and the variable of competitive advantage.

3. There is a statistically significant effect relationship for the dimension of focusing on customer satisfaction and the variable of competitive advantage.

6- statistical methods used

1. Correlation coefficient (Cronbach's alpha) to test the validity and reliability of the scale
2. Means, standard deviations, response level, relative importance, and ordinal importance
3. Multiple regression analysis to test effect hypotheses

SECOND TOPIC: THEORETICAL FRAMEWORK OF THE RESEARCH

1- concept and definition of the international standard ISO 9001

The basic idea of ISO 9001 is the effective implementation of the quality management system, which is achieved through continuous improvement activities, prevention of non-conformity, and results in increased customer satisfaction (Psomas, et al, 2012: 55). ISO 9001 is an international standard for quality management system. This standard describes the requirements for a quality management system that must be implemented continuously so that companies can produce products according to customer requirements and achieve their satisfaction, and achieve continuous improvement in the effectiveness of their quality management system (Sumaedi & Yarmen, 2015: 437).

The ISO 9001 standard states that implementation requirements are “The organization shall establish, document, implement, maintain and continually improve a quality management system in accordance with the requirements of the international standard (BSI, 2000) and conduct internal quality audits and effectively monitor the system to ensure that it conforms to internationally recognized standards and create a cycle of improvement.” Continuing quality (Alhatmi, 2010: 114) is a process-oriented approach that identifies basic principles, requirements, and involvement in an aspect of quality (Franchina, et al, 2023: 2).

Based on the foregoing, the international standard ISO 9001 can be defined as a set of policies, processes and procedures necessary for planning, implementing and presenting products in order to ensure the facility's ability to meet customer requirements.

2- importance and objectives of ISO 9001

The ISO 9001 standard is a very good opportunity for companies to restructure their quality systems, re-engineer their core processes (Gotzamani, 2005: 654) and improve efficiency (Franchina, et al, 2023: 2). Achieving ISO 9001 is a strong first step to transition to total quality management Because of the increased awareness of quality issues and the contribution of employee training and encouragement of continuous improvement (Budayan & Okudan, 2022: 1)

International Standard ISO 9001 has great importance in improving business, increasing market shares, improving efficiency and productivity, customer service and employee retention (Tsim, et al, 2002: 245) ISO 9001 aims to ensure that organizations produce products according to customer requirements, achieve customer satisfaction, and achieve continuous improvement in the effectiveness their quality management system (e.g., Sumaedi & Yarmen, 2015: 438; Psomas, et al, 2012: 55) and organizations can use ISO 9001 to demonstrate their ability to provide products and services that meet customer and regulatory requirements (Budayan & Okudan, 2022: 1)

3- Dimensions of ISO 9001

identified (e.g., Psomas, et al, 2012: 64; Gotzamani, 2005: 649) three dimensions for measuring the international standard ISO 9001 (*continuous improvement - Prevention of nonconformities - Customer satisfaction focus*). For the purposes of the current research, the scale (Psomas, et al., 2012: 64) due to the realism of the dimensions of the scale and the possibility of its application in the field, especially since it is an integrated scale.

(1) continuous improvement: The goal of continuous quality improvement through the application of ISO 9001 is to enhance the organization's ability to satisfy its customers, as the organization must understand and evaluate its current situation and identify areas in the quality management system for continuous improvement, in order to increase its ability to meet and exceed customer requirements. and enhancing customer satisfaction (e.g., Psomas, et al, 2012: 56; Singh, et al, 2006: 143; Briscoe, et al, 2005: 327; Tsim, et al, 2002: 247). The goal that the organization seeks to achieve through the good use of available resources to reduce costs and improve quality in a way that guarantees customer loyalty in an attempt to control part of the market to achieve long-term profitability with better effectiveness than competitors. (Fahd & Al Sultane, 2023:4) Effective quality management and entry into the path of excellence (Alhatmi, 2010: 114) and continuous improvement requires setting measurable goals, as companies must pay careful attention to developing these goals so that they represent the driving force for improvement and teamwork (Gotzamani, 2005: 650) continuous improvement is an essential element In industrial organizations, whatever the system or methodology on which continuous improvement initiatives are based, must be developed by a team of people during a certain period to achieve the required improvement within a product, process, or service (Rode, et al, 2022: 833) and finally, continuous improvement supports the skills achieved (Sundelin, et al, 2023: 7)

(2) Prevention of nonconformities:- It means the company's ability to evaluate and confirm features such as quality, environment, safety, reliability, compatibility, operability, efficiency and effectiveness as defined by standards, regulations and other specifications (Psomas, et al, 2012: 58) if different companies offer similar

products at similar prices The product with the highest conformity quality is likely to gain the largest market share and it has been empirically verified that conformity quality and market share are positively correlated (McGuire, et al, 2008: 6). (Alhatmi, 2010: 115) mentions that the results of the audits that are carried out within the framework of the ISO 9001 standard range from critical non-conformance cases to observations, and more specifically, the critical non-conformity is a serious situation that affects / threatens the service or product quality, and the main non-conformity relates to evidence Strong non-conformance relates to failure to meet certain requirements of the standard while soft non-conformity relates to subjective evidence of failure to meet a particular sub-clause of the standard, ineffective implementation or failure to maintain documentation requirements

(3) Customer satisfaction focus: - Customer satisfaction is the ultimate goal of the ISO 9001 quality management system. By implementing such a system, the organization must identify the current and future needs of customers and consider their needs as requirements for the entire organization (Psomas, et al, 2012: 58) so Customer needs should be categorized into primary (motive to buy), secondary (requirements) and tertiary (performance measures) and should align with internal practices and dimensions of product and service quality (Gotzamani, 2005: 649) Customer satisfaction is definitely the key to success for any organization and there are many contributions in the literature that relate customer satisfaction to concepts such as customer loyalty, repeat orders, the effect of word of mouth, and increased profitability. In order to measure the degree of satisfaction, companies use a variety of methods. The survey is perhaps the most common (Fernández-González, et al, 2007: 500), and finally (Li & Li, 2023:515) focused on the importance of focusing on customer satisfaction and their role in achieving profits and the continuity of organizations alive.

4- Concept and Definition of Competitive Advantage

Competitive advantage is a major decision for operations managers and researchers, as competitive priorities refer to a strategic focus on developing specific manufacturing capabilities that may enhance the factory's position in the market (Boyer & Lewis, 2002: 9). Competitive advantage is the key to success for enterprises. Or companies that are in an environment that is constantly experiencing rapid changes in a highly competitive environment and in an increasingly short period of time (Fatonah, 2023: 822) and (Demeter, etal, 2011: 1) indicated that competitive priorities represent an important internal emergency factor for operations capabilities. Competitive advantage is the extent to which the organization can create a defensible position over its competitors, and it consists of capabilities that enable the organization to distinguish itself from its competitors, and it is the result of critical management decisions (Jahanbakhsh et al, 2023: 8999). Competitive advantage is the result of implementing strategies that are used The various resources that the organization or the company possesses, and therefore the unique skills and assets are the company's ability to make its employees an important part of achieving a competitive advantage (Fatonah, 2023: 828)

Based on the foregoing, competitive advantage can be defined as a set of strategies to determine the company's superiority over competition among other companies.

5- Importance of Competitive Advantage

Competitive priorities are of great importance in organizations because they will lead to achievable goals when organizations carry out their operational tasks (Fahd & Al Sultane, 2023:4) Over time, competitive advantage has received great research attention (Krakowski, et al, 2023: 1445), as competitive advantage is often seen as part of a broader operations strategy aimed at meeting market requirements better than competitors (Ofori- Amanfo, 2014: 54), the competitive advantage is important in enhancing the results of the company's performance (McCardle, etal, 2019: 9) the competitive advantage is of high importance in improving the capabilities of the organization and achieving high profits in the long term by providing high quality products and imposing an excellent price (Jahanbakhsh et al, 2023: 9002) Competitive advantage is of great importance and must be preserved for the long-term success of the company or organization, so the pursuit of competitive advantage will lead the company to success (Fatonah, 2023: 825)

6- Dimensions of Competitive Advantage

identified (Boyer & Lewis, 2002: 19) four main dimensions of competitive advantage, which are (*cost - quality - delivery and flexibility*), while (Demeter, etal, 2011: 34) identified five dimensions (*cost - quality - Delivery - Flexibility and Creativity*) The competitive advantage was measured through five dimensions. These dimensions were (*quality - cost - speed - flexibility and reliability*) (Ofori-Amanfo, 2014: 299-300), and it was adopted (Jahanbakhsh et al, 2023: 8999). (*Price - Cost - Quality - Delivery - Innovation*). For the purposes of the current research, the scale (Boyer & Lewis, 2002: 19) will be adopted for its applicability and easy measurement of results and its compatibility with the capabilities of the researched company.

(1) Cost: Reducing costs incurred from various operations with the aim of creating value by focusing on reducing costs of goods sold (Saarijärvi, etal, 2012: 633) and since the early nineties, cost has become an area of great concern for many manufacturers, and the reason is that with the intensification of Competition Efficiency in production has become a necessary precondition for business survival so cost comes in many dimensions including labor cost, material cost, transportation cost, communication cost, health care cost, utilities and rent cost (Ofori-Amanfo, 2014:42) Competitiveness related to cost priority has been identified As Low Manufacturing Cost, Low Inventory Cost, Low Price Low manufacturing cost has been defined as the ability to manufacture products with low material and overhead costs. Low inventory cost was defined as the ability to maintain low inventories and

thus reduce costs related to inventory, and low price was defined as the ability to compete on the basis of lower prices compared to competition (e.g., Algarni, et al, 2023: 5; Stohm, 2015: 50)

(2) **Quality:** Quality is limited to minimizing defect rates or conforming to design specifications (Fahd & Al Sultane, 2023 : 5). It is indisputable that quality is a major concern for most organizations because it is the only performance measure that companies usually create dedicated departments to manage (Ofori-Amanfo, 2014:34). (Stohm, 2015:51) mentions that organizations that do not Focused on quality faces an increasing threat of losing market share, which in turn leads to lower company profits and an increased need for outsourcing production.

(3) **Delivery:** The emergence of time as a source of competitive advantage has been associated with certain practices that these practices refer to as time-dependent manufacturing practices that aim to enhance the company's response by contracting the total time of the value delivery system (Ofori-Amanfo, 2014:45) found (e.g., Jarzębowicz & Sitko, 2020: 3447; Stohm, 2015: 53) that the company considered delivery as its top priority due to the fact that it was considered a factor for winning customer orders. Delivery is the credibility of the production process to deliver on promise (McCardle, etal, 2019:9). Delivery is the method by which the product / service is delivered to the customer. The delivery process ensures speed, accuracy, and care in the delivery process. Because the ability to provide a fast and continuous delivery service enables the organization to charge an additional price to the product . (Fahd & Al Sultane, 2023 : 5)

(4) **Flexibility:** Flexibility is one of the important priorities in productive organizations, as the importance of flexibility lies in developing the organization's capabilities to change the type of product, goods/services, according to the customer's needs, depending on the change in market demands. From a strategic perspective, flexibility refers to the organization's ability to offer a wide variety of products to the customer. (Fahd & Al Sultane, 2023 : 5) The ability to respond quickly to unexpected changes and events, such as emerging market opportunities and significant shifts in customer needs (Saarijärvi, etal, 2012: 633) Flexibility generally means the ability of the system to quickly adapt to changes at the lowest cost (Ofori-Amanfo, 2014:48). (Stohm, 2015: 52) found that companies that compete for flexibility are able to deal with uncertainties in both production and products, and are able to respond quickly to changes in emerging markets. Flexibility is the ability to deal with product diversity and production volume fluctuations (McCardle, etal, 2019:9)

THIRD TOPIC: FIELD FRAMEWORK FOR RESEARCH

1- Details Of The Questionnaire Distribution And Retrieval

In order to complete the requirements of the current research, the researchers distributed a questionnaire of (95) questionnaires, based on the statistical tables of (Krejcie & Morgan, 1970: 607-610), for determining the sample size of a known community size, and the result was a community consisting of (130) elements (95) elements, so the two researchers distributed (95) questionnaires to the employees of the General Company for the Automotive Industry - Alexandria, and table (1) shows the details of the distribution and retrieval of the questionnaires.

Table (1) details of distribution and retrieval of questionnaires

condition	number	percentage
Distributed Questionnaires	95	100%
Retrieved Questionnaires	95	100%
Invalid Questionnaires	0	0%
Questionnaires Suitable For Analysis	95	100%

2- Analysis of Demographic Factors

factor	Category	number	percentage
Gender	Male	95	100%
	female	0	0%
N		95	100%
Age	30 years or less	3	3%
	31-40	15	16%
	41-50	17	18%
	50 or more	60	63%
N		95	100%
Academic qualification	middle school	26	27%
	diploma	27	28%
	Bachelor	12	13%
	Higher Diploma	2	3%
	Master's Degree	28	29%
N		95	100%

Years of service	1 year or less	0	0%
	2 years - 5 years	5	5%
	6 years - 10 years	15	16%
	11 years - 15 years	20	21%
	15 years and over	55	58%
N		95	100%

This paragraph is concerned with analyzing the demographic factors of the respondents and extracted from the questionnaire for the current research, represented by (gender - age - academic qualification - years of service), as the above table shows that the gender of the sample members amounted to (95) males, which is equivalent to (100%) of the members of the research community, and this indicates that the work that is carried out within the company requires high physical effort, and this is something that cannot be done by females. (3%) of the sample, while the number of participants in the age group (31-40) years was (15), i.e. (16%) of the participants, and the number of participants in the age group (50 and over) was (60), i.e. (63%) of the employees in the researched company, as we note that the highest category is (50 or more), and this indicates the progress of this company in manufacturing work and the great technical expertise it requires. As for the educational qualification, as shown in the table above, the number of participants holding a higher certificate ranked first with a rate of (29%), followed by holders of a diploma certificate with a rate of (28%), then followed by those with a preparatory certificate with a rate of (27%), then followed by holders of a bachelor's degree with a percentage of (13%). and finally holders of a higher diploma (3%). As for the years of service, the years of service from 15 years or more were ranked first, with a rate of (58%), and whoever has a year's service or less, it was (0%). Regression of life cycle stages.

3- statistical test of the research scale

Checking the stability of the research scale: The questionnaire was subjected to a stability test after it was distributed to the research sample. This test is that the questionnaire gives the same results if it was distributed again to the same research sample (Bartholomew, 1996: 24) and because of the difficulty of the researchers access again For the research sample, the researchers used the correlation coefficient test (alpha - Cro-Nabach) for this purpose, and table (3) below shows the stability ratios for each variable:

Table (3) coefficient (Alpha - Cronbach) and consistency ratio for the research variables

variable sequence	variable name	number of questions	Cronbach's Alpha	consistency ratio
1	International Standard ISO 9001	19	0.921	0.92
2	Competitive advantage	16	0.893	0.89

Results of Table (3) show that the questionnaire with its standards is of high stability and there is internal consistency between the questions of the questionnaire.

4- Descriptive Analysis

This part includes the presentation of the arithmetic averages of the questionnaire items, their standard deviations, the level of response, the ordinal importance, and the relative importance (RII) of the research variables, which are (International Standard ISO 9001 and Competitive Advantage).

As the level of the answer was determined in the light of the arithmetic averages by determining its affiliation to any category, and since the research questionnaire relies on the five-point Likert scale (completely agree - completely disagree), there are five categories to which the arithmetic averages belong (Nakapan & Radsiri, 2012: 573) The categories are as follows:

The level of the answer was determined in the light of the arithmetic averages by defining their affiliation to any category, and since the research questionnaire depends on the five-point Likert scale (agree completely - completely disagree), there are five categories to which the arithmetic averages belong (Nakapan & Radsiri, 2012: 573). The categories are as follows:-

Table (4): Classification of the arithmetic mean levels according to its categories

Category Sequence	Category range	Category level
1	1 – 1.80	very low
2	1.81 – 2.60	low
3	2.61 – 3.40	medium
4	3.41 – 4.20	high
5	4.21 – 5.00	very high

Source : Nakapan, W. & Radsiri, S. (2012) "Visual training in virtual world: A comparative study between traditional learning versus learning in a virtual world" <http://www.researchgate.net/publication/270885178>, P. 573.

As for the relative importance index (RII) according to (Akadiri, 2011: 242)

Table (5): Classification of RII levels

level of materiality	Relative Importance Index (RII)
Very weak	$0 \leq 0.20$
weak	$0.21 \leq 0.40$
medium	$0.41 \leq 0.60$
high	$0.61 \leq 0.80$
very high	$0.81 \leq 1$

Source :Akadiri, Oluwole Peter. (2011).Development of a multi – criteria approach for the selection of sustainable materials for building projects. PhD Thesis. University of Wolverhampton., UK.P.242.

We will show the descriptive analysis of the research variables, as follows:

4-1. Description of the dimensions of the variable of the international standard ISO 9001

(1) *continuous improvement*: Table (6) shows the data on the statistical description of the general continuous improvement dimension, as this table shows that the arithmetic mean of the general continuous improvement dimension was (3.730) with a standard deviation of (0.658). This dimension obtained a response level of (high).) with ordinal importance (3) and obtained a relative importance (RII) of (0.75), which is of a (high) level.

(2) *Prevention of nonconformities*: Table (6) shows the data on the statistical description of the general dimension of prevention of violations, as this table shows that the arithmetic mean of the general dimension of prevention of violations was (3.903) with a standard deviation of (0.805), and this dimension got a response level of (high).) with ordinal importance (1) and obtained a relative importance (RII) of (0.78), which is of a (high) level.

(3) *Customer satisfaction focus*: Table (6) shows the data on the statistical description of the dimension of focus on general customer satisfaction, as this table shows that the arithmetic mean of the dimension of focus on general customer satisfaction was (3.842) with a standard deviation of (0.815). The dimension is at the level of (high) response with ordinal importance (2), and it obtained a relative importance of %RII amounting to (0.77), which is of a (high) level.

Table (6):The arithmetic means, standard deviations, response level, relative importance, and ordinal importance of the dimensions of the international standard ISO 9001 (n = 95)

sequ ence	main dimensions	mean	Std. Devi ation	answer level	Ordinal importance	Relativ e import ance %RII	level of relative importance
1	<i>continuous improvement</i>	3.730	0.658	high	3	0.75	high
2	<i>Prevention of nonconformities</i>	3.903	0.805	high	1	0.78	high
3	<i>Customer satisfaction focus</i>	3.842	0.815	high	2	0.77	high

4-2. Describe the dimensions of the competitive advantage variable

1- *Cost*: Table (7) shows the data on the statistical description of the general cost dimension, as this table shows that the arithmetic mean of the general cost dimension was (3.942) with a standard deviation of (0.484). (2) It obtained a relative importance (RII) of (0.79), which is of a (high) level.

2- *Quality*: Table (7) shows the data on the statistical description of the general quality dimension, as this table shows that the arithmetic mean of the general quality dimension was (3.943) with a standard deviation of (0.705). This dimension got a (high) response level of ordinal importance (1) It obtained a relative importance (RII) of (0.79), which is of a (high) level.

3- Delivery: Table (7) shows the data on the statistical description of the general delivery dimension, as this table shows that the arithmetic mean of the general delivery dimension was (3.789) with a standard deviation of (0.907). This dimension got a (high) response level of ordinal importance. (3) It obtained a relative importance (RII) of (0.76), which is of a (high) level.

4- Flexibility: Table (7) shows the data on the statistical description of the general flexibility dimension, as this table shows that the arithmetic mean of the general flexibility dimension was (3.598) with a standard deviation of (0.734). This dimension got a (high) level of ordinal importance. (4) It obtained a relative importance (RII) of (0.72), which is of a (high) level.

Table (7) arithmetic means, standard deviations, response level, relative importance, and ordinal importance for the dimensions of competitive advantage (n = 95)

sequ ence	main dimensions	mean	Std. Deviation	answer level	Ordinal importanc e	Relative importance %RII	level of relative importance
1	Cost	3.942	0.484	high	2	0.79	high
2	Quality	3.943	0.705	high	1	0.79	high
3	Flexibility	3.789	0.907	high	3	0.76	high
4	Delivery	3.598	0.734	high	4	0.72	high
5	Innovation	3.942	0.484	high	2	0.79	high

5- Testing hypotheses of effect

In this paragraph, the effect relationships between the research variables will be measured based on multiple regression analysis and the (F) test in order to determine the significance of the regression equation (effect), as there is a significant effect if the calculated value of (F) is greater than the value of Tabular (F), and there is no significant effect if the computed (F) value is less than the tabular (F) value at a significant level of 0.01, and the determination coefficient (R²) was used to explain the amount of change achieved by the influence of the independent variable in the dependent variable, and to achieve this Objective It is necessary to verify the extent to which the research hypothesis and the sub-hypotheses emanating from it can be accepted, as shown in Table (8).

Research hypothesis (there is a statistically significant positive effect relationship to the international standard ISO 9001 with its dimensions and the variable of competitive advantage)

In order to know the effect relationship between the dependent variable (competitive advantage) and the independent variable (International Standard ISO 9001), a multiple linear regression model was used, as in Table (8) below, as the results of the regression model showed that the regression model is significant through the value of (F) It is 12.666 with a statistical significance of 0.001, which is less than 0.01. The results indicate that the independent variable (International Standard ISO 9001) explains 73%, which is the value (R²) of the change in the competitive advantage, which is a high explanatory ability. And the remaining percentage, which is 27%, is due to the contribution of other variables that are not included in the research model. The value of (β), which illustrates the relationship between the competitive advantage and the international standard ISO 9001, came with a value of 0.261, with statistical significance at the level of 0.001, which is less than 0.01, and this means that the more it improves International Standard ISO 9001 By one unit, the competitive advantage will improve by 0.261 units, as the table below shows the results of the linear multiplicity test, where the results revealed that the variance inflation factor of the model was 1.000, which is smaller than 5, which indicates that there is no problem of linear multiplicity between the variables of the model.

Table (8) values of the regression model for the two variables of the international standard ISO 9001 with its dimensions and competitive advantage (N = 95)

Competitive advantage	R	R Squar e	F Calculat ed	Sig.	(β) Unstandardize d Coefficients	t	Sig.	VIF
International Standard ISO 9001	0.34 6	0.734	12.666	0.00 1	0.261	3.559	0.00 1	1.000
<i>continuous improvement</i>	0.23 5	0.701	5.460	0.00 2	0.171	2.337	0.00 2	1.000

<i>Prevention of nonconformities</i>	0.27 6	0.69	7.666	0.00 7	0.164	2.769	0.00 7	1.000
<i>Customer satisfaction focus</i>	0.35 9	0.77	13.746	0.00 0	0.210	3.708	0.00 0	1.000

Three sub-hypotheses branch out from this hypothesis

1. There is a statistically significant effect relationship for the continuous improvement dimension and the competitive advantage variable.

The results showed in Table (8) that the regression model is significant, through the value of (F), which is 5.460, with a statistical significance of 0.002, which is less than 0.01. highly explanatory. And the remaining percentage, which is 30%, is due to the contribution of other variables that are not included in the research model. The value of (β), which explains the relationship between the dimension of continuous improvement and the variable of competitive advantage, has a value of 0.171, with statistical significance at the level of 0.002, which is less than 0.01, and this means that the more improvement Continuous improvement by one unit will improve the competitive advantage by 0.171 units, as the table above shows the results of the multicollinearity test, where the results revealed that the variance inflation factor of the model was 1,000, which is smaller than 5, which indicates that there is no problem of linear multiplicity between the variables of the model.

2. There is a statistically significant effect relationship for the dimension of Prevention of nonconformities and the variable of competitive advantage..

The results showed in Table (8) that the regression model is significant, through the value of (F), which is 7.666, with a statistical significance of 0.007, which is less than 0.01. highly explanatory. And the remaining percentage, which is 29%, is due to the contribution of other variables that are not included in the research model. The value of (β), which explains the relationship between the dimension of Prevention of nonconformities and the variable of competitive advantage, has a value of 0.164, with statistical significance at the level of 0.007, which is less than 0.01. Improving the prevention of offenses by 1 unit will improve competitive advantage by 0.164 units. The above table also shows the results of the multicollinearity test, where the results revealed that the variance inflation factor of the model was 1,000, which is less than 5, which indicates that there is no problem of collinearity between the model variables.

3. There is a statistically significant effect relationship for the Customer satisfaction focus and the competitive advantage variable.

The results showed in Table (8) that the regression model is significant, through the value of (F), which amounts to 13.746, with a statistical significance of 0.000, which is less than 0.01. The results indicate that after focusing on customer satisfaction, it explains 77%, which is the value (R2) of the change in the competitive advantage. It has a high explanatory power. And the remaining percentage, which is 23%, is due to the contribution of other variables that are not included in the research model. The value of (β), which illustrates the relationship between the dimension of Customer satisfaction focus and the competitive advantage variable, has a value of 0.210, with a statistical significance at the level of 0.000, which is less than 0.01, and this means That whenever the focus on customer satisfaction improves by one unit, the competitive advantage will improve by 0.210 units. The above table also shows the results of the multicollinearity test, where the results revealed that the variance inflation factor of the model was 1,000, which is less than 5, which indicates that there is no problem of collinearity between the model variables.

FOURTH TOPIC: CONCLUSIONS AND RECOMMENDATIONS

1- Conclusions

1. We conclude that the model inflation coefficient (VIF) for all variables was less than (5), which indicates that there is no problem of multilinearity between the variables.
2. The results showed that there is a significant impact relationship between the variable of the international standard ISO 9001 and the competitive advantage, and this means that the General Company for the Automotive Industry has the capabilities to implement continuous improvement, prevent violations and focus on customer satisfaction, which can affect raising the performance of its operations and achieving a sustainable competitive advantage and thus achieving the goals on Short and long term.

3. The results showed that the company is making great efforts to monitor cases of non-conformity through the quality of processing, storage, packaging and delivery, and that the company is working on developing an organizational structure to support the continuous improvement of the quality management system and is constantly striving to make rapid changes in design, and this applies with the findings of the study (Gotzamani, 2005: 654).

4. The results showed that the company is fully prepared to develop the international standard ISO 9001 with the control of all documents for the quality management system and the creation of records as evidence of compliance with those requirements.

2- Recommendations

1. Invite the company's management to pay more attention to the international standard ISO 9001 for its effective role in improving competitive advantage and ensuring survival, growth and development.

2. The need for the company to adopt the international standard ISO 9001 because of its positive benefits in improving quality, reducing costs, improving delivery time, and then increasing revenues and achieving a competitive advantage in the markets through product improvements.

3. The company's management must be convinced of the application and development of the international standard ISO 9001 so that it has the support and attribution to make the necessary changes that may occur in it through the preparation and preparation of the quality management system in it, the appointment of a quality representative for it, the identification of all responsibilities and powers in it, and the assignment of a consulting body. It is often the standardization and quality control device that works by supervising the application of international standard ISO 9001, re-diagnosing quality management processes, searching for a successful experience that applied the quality management system according to international standard ISO 9001, and benefiting from it as a reference comparison, building and sequencing operations plans, and preparing work instructions for all scientific and administrative departments and units. .

References

1. Akadiri, Oluwole Peter. (2011). "Development of a multi – criteria approach for the selection of sustainable materials for building projects. PhD Thesis". University of Wolverhampton., UK.
2. Algarni, M. A., Ali, M., Leal-Rodríguez, A. L., & Albort-Morant, G. (2023). "The differential effects of potential and realized absorptive capacity on imitation and innovation strategies, and its impact on sustained competitive advantage". *Journal of Business Research*, 158, 113674.
3. Alhatmi, Y.S. (2010), "Quality audit experience for excellence in healthcare", *Clinical Governance: An International Journal*, Vol. 15 No. 2, pp. 113-27
4. Bartholomew, D.J. 1996 "The Statistical Approach to Social Measurement". Academic Press, San Diego.
5. Boyer, K. K., & Lewis, M. W. (2002). "Competitive priorities: investigating the need for trade-offs in operations strategy". *Production and operations management*, Vol. 11, No. 1, 11(1), 9-20.
6. Briscoe, J. A., Fawcett, S. E., & Todd, R. H. (2005). "The implementation and impact of ISO 9000 among small manufacturing enterprises". *Journal of Small Business Management*, 43(3), 309-330.
7. Budayan, C., & Okudan, O. (2022). Roadmap for the implementation of total quality management (TQM) in ISO 9001-certified construction companies: Evidence from Turkey". *Ain Shams Engineering Journal*, 13(6), 101788.
8. Demeter, K., Boer, H., Peng, D. X., Schroeder, R. G., & Shah, R. (2011). "Competitive priorities, plant improvement and innovation capabilities, and operational performance". *International Journal of Operations & Production Management*.
9. Fahd, Yasser Mahmoud & Al Sultane, Thakaa Deyaa,(2023), "Impact Of Lean Manufacturing Practices On Enhancing Competitive Advantage (An Analytical Study At The General Company For The Automotive Industry - Alexandria)", *The Middle East International Journal For Social Sciences (Meijss)* E-Issn: 2682-8766 Vol 5, No 2 Jun. (2023):1-12.
10. Fatonah, F. F. (2023). "Literature Study On Competitive Advantage In Official Schools Which Is Influenced By Factors: Competitive Strategies, Leadership, And Competence". *Dinasti International Journal of Management Science*, 4(5), 822-832.
11. Fernández-González, A. J., & Carlos Prado Prado, J. (2007). "Measurement and analysis of customer satisfaction: company practices in Spain and Portuga". *International Journal of Productivity and Performance Management*, 56(5/6), 500-517.
12. Franchina, V., Stabile, S., Cenna, R., Mannozzi, F., Federici, I., Testoni, S., ... & Cagnazzo, C. (2023). "ISO 9001: 2015 standard implementation in clinical trial centers: An exploratory analysis of benefits and barriers in Italy". *Contemporary Clinical Trials Communications*, 33, 101104.

13. Gotzamani, K. D. (2005). **"The implications of the new ISO 9000: 2000 standards for certified organizations: A review of anticipated benefits and implementation pitfalls"**. International Journal of Productivity and Performance Management.
14. Jahanbakhsh Javid, N., & Amini, M. (2023). **"Evaluating the effect of supply chain management practice on implementation of halal agroindustry and competitive advantage for small and medium enterprises"**. International Journal of Computer Science and Information Technology, 15(2023), 8997-9008.
15. Jarzębowicz, A., & Sitko, N. (2020). **"Agile requirements prioritization in practice: Results of an industrial survey"**. Procedia Computer Science, 176, 3446-3455.
16. Krakowski, S., Luger, J., & Raisch, S. (2023). **"Artificial intelligence and the changing sources of competitive advantage"**. Strategic Management Journal, 44(6), 1425-1452.
17. Krejcie R&Morgan , D.(1970), **"Determining sample size for research activities"** , Educational and psychological measurement , 30,607-610.
18. Li, D., & Li, K. (2023). **"A multi-objective model for cold chain logistics considering customer satisfaction"**. Alexandria Engineering Journal, 67, 513-523.
19. McCardle, J. G., Rousseau, M. B., & Krumwiede, D. (2019). **"The effects of strategic alignment and competitive priorities on operational performance: The role of cultural context"**. Operations Management Research, 12(1), 4-18.
20. McGuire, S. J., & Dilts, D. M. (2008). **"The financial impact of standard stringency: An event study of successive generations of the ISO 9000 standard"**. International Journal of Production Economics, 113(1), 3-22.
21. Nakapan, W. & Radsiri, S. (2012) " **Visual training in virtual world: A comparative study between traditional learning versus learning in a virtual world** " <http://www.researchgate.net/publication/270885178>,
22. Ofori-Amanfo, J. (2014). **"Supply management capabilities and operations performance of UK manufacturing small and medium sized enterprises (SMEs)"** (Doctoral dissertation, University of Leeds).
23. Psomas, E. L., Kafetzopoulos, D. P., & Fotopoulos, C. V. (2012). **"Developing and validating a measurement instrument of ISO 9001 effectiveness in food manufacturing SMEs"**. Journal of Manufacturing Technology Management, 24(1), 52-77.
24. Rode, J. C., Huang, X., & Schroeder, R. G. (2022). **"Human resources practices and continuous improvement and learning across cultures"**. Journal of International Management, 28(4), 100972.
25. Saarijärvi, H., Kuusela, H., & Spence, M. T. (2012). **"Using the pairwise comparison method to assess competitive priorities within a supply chain"**. Industrial Marketing Management, 41(4), 631-638.
26. Singh, P., Feng, M. and Smith, A. (2006), **"ISO 9000 series of standards: comparison of manufacturing and service organisations"**, International Journal of Quality & Reliability Management, Vol. 23 No. 2, pp. 122-42.
27. Stohm, M., & Berglund, S. (2015). **"Critical competitive priorities and capabilities in a high cost environment"**. International Journal of Computer Science and Information Technology, 15(2023), 8997-9008.
28. Sumaedi, S., & Yarmen, M. (2015). **"The effectiveness of ISO 9001 implementation in food manufacturing companies: a proposed measurement instrument"**. Procedia Food Science, 3, 436-444.
29. Sundelin, A., Fagerlund, M. J., Flam, B., & Djärv, T. (2023). **"In-situ simulation of CPR in the emergency department—A tool for continuous improvement of the initial resuscitation"**. Resuscitation Plus, 15, 100413.
30. Tsim, Y. C., Yeung, V. W. S., & Leung, E. T. (2002). **"An adaptation to ISO 9001: 2000 for certified organisations"**. Managerial Auditing Journal, 17(5), 245-250.