

THE IMPACT OF BUSINESS INTELLIGENCE ON STRATEGIC ORIENTATION THE MEDIATING ROLE OF TECHNOLOGY ACCEPTANCE MODEL

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Abstract

This study aims to identify the impact of business intelligence on strategic orientation and examine the intermediate role of the technological acceptance model in Jordanian pharmaceutical industrial companies, the comprehensive survey method was used for the study population, which is represented by (128) administrative at the senior and middle organizational levels, questionnaires were used to collect data and information. Many statistical methods were used, most notably path analysis(SEM), The most important findings the study reached were there are a statistically significant impact of Business Intelligence on strategic orientation, a statistically significant partly direct impact of TAM in the relationship between Business Intelligence and strategic orientation. With the most notably recommendations: pharmaceutical companies should reinforce, use, and implementing business intelligence at all the organizational level specially at the strategic level, using digitalization and a modern information and communication technology systems to provide sufficient data and information that supported the strategic orientation process and decision making , encouraging workers to accept the use of new technology in their work's, using innovative and creative methods to overcome the challenges in their competitive environment.

Keywords: business intelligence, strategic orientation, technological acceptances model, Jordanian pharmaceutical companies

1. INTRODUCTION

Globalization and technological progress have changed the business landscape making it difficult for companies to maintain their sustainability, ability to exploit market opportunities, achieving competitive advantage, and superior performance; without any effective strategies, they will not be able to draw general lines, and their executive procedures which reflecting their future strategic orientation in light of turbulent business environments, to respond for each new opportunity to create sustainable organizations with long-term goals, providing a framework supporting their leaders' ability to identify opportunities to provide products, and the value services to customers, all of that requires them to use business intelligence (Akeke et al., 2021; AL-daleen, 2017).

The (BI) concept covers the processes and techniques required to deal correctly with information that is used in decisions, it is one of the intelligence tools used by organizations to respond to rapid technological change and competition all over the world (Nasser et al., 2019). BI is a scientific and practical approach that consists of several methods used to provide and develop useful intelligence information to help organizations survive and thrive, allows organizations to predict with a high degree of certainty the behavior of their competitors, suppliers, customers, markets, products, services, and the business environment (Caseiroa &

Coelho, 2019). The speeding access to information requires the use of electronic means, to process, and present it in a useful form, all organizations have become interested in different technologies, indeed they will be fail to keep abreast of various developments unless it works to convince their employees and decision-makers the importance of technologies in achieving the best performance, enhancing their acceptance, and willingness to do so which reflected their effort at work (Huang et al., 2021).

2. LITERATURE REVIEW

2.1 The Strategic Orientation

Strategic orientation represents a set of basic principles that affect all organizational activities, starting from the development of a strategy based on a set of basic assumptions, values, and beliefs of their behaviors when (selecting, implementing, and managing any specific strategic orientation) (Fritschner et al., 2021). The rapid events in the field of business require more flexibility, and speed response to organizations to ensure their survival, growth, and continuity, this requires searching for strategic orientation ways, to support their decisions, and goals by developing the capabilities of decision makers to draw their future strategic orientation, strategic orientation reflects the Organizational philosophy, and its predetermined action to better performance in a dynamic, complex environment (Totar, 2015).

(SO) is the most important organizational capability that plays a critical role in its success, giving it the ability to achieve a sustainable advantage (Falahat et al., 2018). Organizations are required to follow new behaviors for outstanding continuous performance (Chou, 2018). Which enhances strengths, minimizes weaknesses, choosing the appropriate strategy for the available market opportunities to achieve the best performance (Nasser, 2019; Cheluget & Koech, 2018).

(SO) considered an intangible resource that influences positively business decisions, and activities to pursue market-oriented behavior or innovation to ensure their sustainability, (Ablodun & Kida, 2016; Hakla, 2011). Many practitioners and academics have argued the importance of strategic orientations in (high performance, competitive advantages, market share, and long-term goals) or to achieve profitability, actions are necessary to unite and coordinate all efforts of individuals and departments to achieve specific goals, helping managers to develop their strategic vision, a good understanding of rapid environmental changes, their responsiveness, and awareness, to planning for the organization future (Caseiroa & Coelho, 2019).

Many studies, such as (Almawadyeh & Abu Qaoud , 2022; Baker & Al-Khairiy , 2019; Kiki et al., 2021; Abdel-Razek et al., 2019) confirmed the impact of strategic orientation in competitive advantage, reducing environmental risks, and institutional excellence, managing human resources, customers relation, operations, leadership, and company performance, there are many dimensions to (SO) such as; entrepreneurial orientation (EO), market orientation (MO), and technology orientation (TO) (Zahoor & Lew, 2021; Abdulrab et al., 2020; Romero et al., 2021).

2.1.1 The Strategic Orientation Dimensions

There are many types of strategic orientation such as (market orientation, learning orientation, entrepreneurship orientation, knowledge orientation, customer orientation, management orientation, competition orientation, and technological orientation) (Sahi et al., 2018; Ogbari et al., 2018; De-Guimaraes et al., 2018; Okello et al., 2018).

2.1.1.1 Customer Orientation

(CUO) reflects the ability of organizations to obtain information about customers, and use it to develop appropriate strategies to meet their needs and desires, customer needs should be a top priority in the interactions between an organization, customers, and competitors (Liu et al., 2018; Serafim & Verissimo, 2021; Irtaimeh & Batayneh, 2021).

2.1.1.2 Technology Orientation

(TO) refers to the continuous monitoring of technological developments, and search for new technologies that go beyond existing products or market boundaries (Klein et al., 2021). Describes the ability of organizations to have the technological infrastructure making them capable of developing new products, employing their skills to pursue technological knowledge, and using them optimally to predict the needs and desires of customers that reflect their preference for producing products or services using advanced technology (Izadi & Ahmadian, 2018; Irtaimeh & Batayneh 2021). Oriented technology companies gain a competitive advantage, and the ability to provide distinguished products by giving the most importance to research and continuous proactive technological development processes (Totar et al., 2015).

2.1.1.3 Entrepreneurial Orientation

The strategic orientation of entrepreneurship can be understood through the organizations' focus on the creative aspects of decision-making and the implementation of organizational practices based on a set of activities, and behaviors that support creative actions (Zhu et al., 2022; Ayodotun et al., 2018). By pushing organizations to be proactive to enter new markets, obtaining advanced technology to create economic wealth, and achieve institutional excellence. Increasing its competitiveness, independence, and willingness to take risks, through the innovation processes (the desire to experiment and create new ideas), proactivity (the search for new opportunities in the market), and risk acceptance (the organization's willingness to engage in risky ventures) (Krazakiewise & Cyfer, 2019; Al-Shawabkeh & Hayasat, 2021; Hussain et al., 2018).

2.1.1.4 Learning Orientation

The interrelated concepts of 'learning organization' and learning orientation' have attracted widespread attention, as a fundamental outcome of effective human resource management based on the individual learning at organization, organizational learning is used interchangeably with the process-centered learning orientation, which is a closely related concept that relates more to the vision, mental and cultural models for the generation of new knowledge (Alerasoul et al., 2021). The learning orientation includes all organizational values that determine the ability of organizations and individuals to develop and use the knowledge

that affects the activities of the organization to enhance its competitive advantage, by obtaining information about customer needs, market changes, and competitors' movements (Al-Shawabkeh & Al-Hayasat, 2021).

2.1.1.5 Competitors Orientation

Companies must have long-term capabilities and strategies for studying competing companies, activities of existing or potential competitors, targeting market opportunities to achieve a competitive advantage, taking technical decisions to meet current, and projected customer needs and desires, promptly provide products or services that achieve customer satisfaction, compared to what other competing companies offer for products, produced with unique characteristics that make the customer willing to pay more or offer better products at lower prices than competitors' products (Qasem, 2018; Yaskun and Sudarmyatin, 2021). Many studies such as (Al-Shawabkeh & Al-Hayasat, 2021; Irfan and Vinod, 2018; Al-Mamun et al., 2019) emphasized the decisive and important role of strategic competitor orientations in (education, technology, entrepreneurship, cost, organizational excellence, and innovation).

3. BUSINESS INTELLIGENCE

(BI) refers to systems that support and improve the decision-making process using data analysis techniques to generate integrated organizational knowledge, which improves the decision process, and high-quality decision-making mitigates risks associated with environmental uncertainty (Al-Saad et al., 2022; Nasser et al., 2019). Information is the most valuable organizational assets required for quick and effective decision-making, tracking dynamic changes to discover emerging opportunities within or outside organizations while maintaining sustainable goals (Romero et al., 2021).

(BI) use a set of computer programs to collect data related to operational activities to analyze, stored, disseminated, and organized to be accessible to decision-makers (Gauze line & Bentz, 2017). representing a top priority to improve individuals' abilities to learn and innovate (Huang, 2019). (BI) supports strategic, operational, and tactical decision-making mechanisms based on the integration, and analysis of organizational data resources (Nithya & Kiroteka, 2021).

(BI) systems have great importance among modern technological tools, due to the complex need that organizations business have reached in managing their activities and operations, contributing to facilitating work procedures, saving effort and time, increasing the speed of obtaining information, enhancing aspects of transparency, impartiality, and accuracy, and supporting the organization's structured future prediction (Alomosh, 2021).

(BI) is become indispensable in making strategic decisions, considered a source of counterintelligence at the level of medium and long-term goals improving organizational performance, productive efficiency, resource growth, resource planning, cost reduction, and innovation promotion, reducing risks in returns profit (Xiong et al., 2021; Nuseir et al., 2019; Daphne & Yeung, 2021; Abu Sweilema & Abualoushb, 2019; Al-batayneh et al., 2020). There are many type of Business Intelligence:

3.1 Emotional Intelligence

(EI) was invented in 1990, as a series of emotional and social skills that combine (perception, evaluation, expression, analysis of emotions, ability to understand and feel the feelings of others, and deal with them in different situations), which in turn affects the way we perceive, express ourselves, develop and maintain our social relationships (Issa, 2018; Tai & Kareem, 2018). Leaders who own the competencies of emotional intelligence, the art of managing it can inspire colleagues through openness, empathy, responsiveness emotional communication, developing relationships between them, and improving organizational effectiveness (Caruso & Salove, 2014; Dasborough et al., 2021). Individuals who have a normal level of emotional intelligence, know how to deal with their feelings well, understand and deal with the feelings of others correctly, find more comfort with themselves, excel in all areas of life, control their mental structure, and lead their production Forward (Huang & Lee, 2019).

3.2 Strategic Intelligence

(SI) is a set of systems and procedures that organizations take to ensure the excellence and strategic intelligence of their leaders, who have the vision, partnership, creativity, and ability to motivate, investigate data and information, capability to employ ideas, and formulate smart strategies based on information (Matter, 2018).

(SI) increased the ability of leaders to develop perception and design innovative strategies to realize all the factors that affect the organization in the present and future, collecting information, analyzing it, and delivering it to the decision-maker to make their decisions, respond, and adapt to environmental variables, accelerate their abilities in predicting and planning the future, in a sequential framework that targets the intellectual path in a way that ensures maximum benefit from it, enables them to use a set of tools to adapt to all obstacles, problems and new situations that they face, the ability to change behavior when there is an external necessity (Al-habeeb & Al-sultan, 2021; Al-Asmari, 2022).

3.3 Competitive Intelligence

(CoI) a process or practice that produces and disseminates actionable intelligence by planning, ethically, and legally (collecting, processing, and analyzing information) from and about the internal, and external environment to assist decision-makers in their decisions, providing the organization with a competitive advantage, includes asking questions about how the organization plans for its intelligence activities, collecting information, how it is analyzed, communicated, managed, and develops decision-makers insights into the components of the external environment (competitors, customers, suppliers, and technology) (Calof & Sewdass, 2020; Kalra et al., 2020).

4. TECHNOLOGY ACCEPTANCE MODEL

The (TAM), developed by Davis (1989), assumes that when users realize that technology is useful and easy to use, they will be more willing, accepting, and aware of the importance of these technological systems in facilitating their performance and tasks (Ajibade, 2018). There

are two critical factors of TAM (PU) defined as the extent to which an individual believes that using an innovation will enhance their performance, and (PEOU) defined as the extent in which the individual believes that using the innovation will be effortless (Yuen et al., 2022). TAM is a postmodern concept that explains how people accept, and use new technologies from the point of the end user view, tam model focuses on, perception of user motives usability, observation of utility, and attitudes toward technology, the TAM model is more suitable for individual rather than organizational use (Rad et al., 2022).

5. METHODOLOGY

5.1 Research questions and framework

The highly competitive, complex, uncertain, and dynamic environment poses a new challenge to organizations, which requires leaders to be fully aware of their internal and external strategic objectives and activities, structure, environment, and policies to be followed to take their strategic decisions to survive, grow, compete, and using business intelligence systems to ensure success and achieve continuity, supporting and guiding the organization's future orientations.

The study problem can be clarified by answering these questions:

- I. (What is the impact of the technology acceptance model on the relationship between business intelligence and strategic orientation in Jordanian pharmaceutical companies?).
- II. Is there any impact of (business intelligence) on the strategic orientation sub-dimension in the Jordanian Pharmaceutical Industrial Companies?
- III. What is the level of interest of these companies in business intelligence and strategic orientation in Jordanian pharmaceutical companies?

5.2 Conceptual Model

Based on the study hypotheses conceptual model were developed.

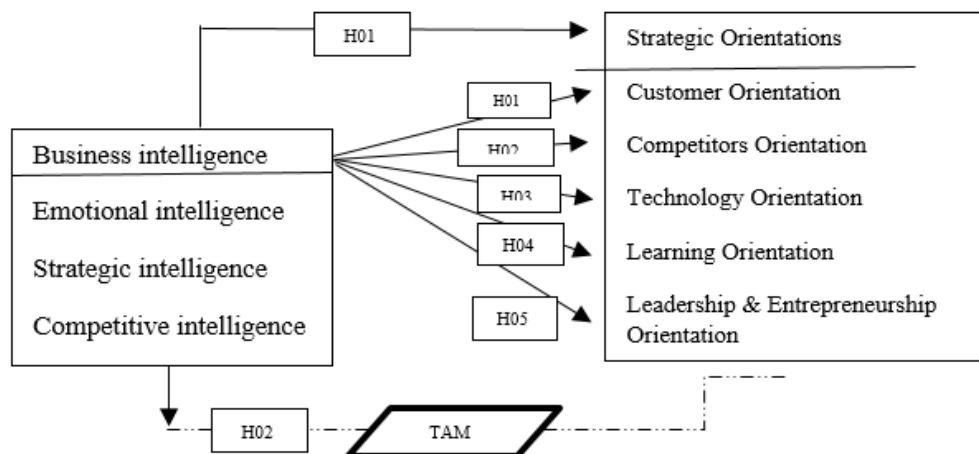


Figure 1: the study model.

Sources: Dependent variable: (Ramanathan, 2017; Ardito, 2018; Gonzalez, 2018; Kanagal, 2017). Independent variable: (Huang et al., 2022; Abu-Qaued & Almawadyeh, 2022). Mediating variable : (Ali, 2017; Ajibade, 2018).

This framework formulates our next hypothesis:

(H₀₁): There is no statistically significant impact at the level of significance ($P \leq 0.050$) of Business intelligence by its dimensions (Emotional intelligence, Strategic intelligence, Competitive intelligence) on the strategic orientation by its dimension (Customer Orientation, Competitors Orientation, Technology Orientation, Learning Orientation, and Leadership & Entrepreneurship Orientation) in the Jordanian Pharmaceutical Industrial Companies.

A number of subs – hypotheses emerge from these hypotheses:

(H₀₁₋₁): There is no statistically significant impact at the level of significance ($P \leq 0.050$) of Business intelligence by its combined dimensions on Customer Orientation in the Jordanian Pharmaceutical Industrial Companies.

(H₀₁₋₂): There is no statistically significant impact at the level of significance ($P \leq 0.050$) of Business intelligence by its combined dimensions on Competitor Orientation in the Jordanian Pharmaceutical Industrial Companies.

(H₀₁₋₃): There is no statistically significant impact at the level of significance ($P \leq 0.050$) of Business intelligence by its combined dimensions on Technology Orientation in the Jordanian Pharmaceutical Industrial Companies.

(H₀₁₋₄): There is no statistically significant impact at the level of significance ($P \leq 0.050$) of Business intelligence by its combined dimensions on Learning Orientation in the Jordanian Pharmaceutical Industrial Companies.

(H₀₁₋₅): There is no statistically significant impact at the level of significance ($P \leq 0.050$) of Business intelligence by its combined dimensions on Entrepreneurship Orientation in the Jordanian Pharmaceutical Industrial Companies.

(H₀₂): There is no statistically significant impact at the level of significance ($P \leq 0.050$) of Business intelligence by its combined dimensions in the strategic orientation by its combined dimensions through technological acceptances model on the Jordanian Pharmaceutical Industrial Companies.

5.3 Target population, sample description, and data collection

The study population comprised from (9) Jordanian Pharmaceutical Industrial Companies in registered at the Jordanian Federation of Pharmaceutical Producers that accepted to be part of the study (The Jordanian Federation of Pharmaceutical Producers 2020). The study targeted all administrators at the top and middle management levels, consisted of (128) respondents. A comprehensive survey was used due to the limitations of society, (128) questionnaires were distributed, (126) questionnaires were retrieved, (4) of them were not fit to be analyzed. The retrieved questionnaires represent (93%) of the total distributed, which is a statistically acceptable percentage. The study relied on two types of sources data: (secondary data):

collected through books, articles, dissertations, research and journals, and various data and references documented according to the American Psychological System (APAs, 2020). (Primary Data): A questionnaire was designed to collect primary data about the study variable; The response was measured using a five-point Likert scale (strongly agree = 5, agree = 4, nervous = 3, disagree = 2, and strongly disagree = 1) (Al-Najjar et al., 2018).

The basic characteristics of the population are shown in table1.

Table 1: Duplicates and percentages of the demographic characteristics of the study

Percentage	Frequency	Category	Variable
65.6	80	Male	Gender
34.3	42	Female	
22.1	27	Less or 30 year	Age
27.0	33	31 - 40 years	
33.6	41	41 - 50 year	
17.2	21	51year and above	
52.5	64	Upper management	Career level
47.5	58	Middle management	
7.4	9	Diploma	qualification
71.4	87	Bachelor's degree	
21.3	26	Highly study	
23.0	28	Less or 5 years	experience
22.1	27	6 - 10 year	
22.1	27	11 -15 year	
32.8	46	16 and above	
100.0	122	Total	

Based on the results of the analysis in table 1. it is clear that most of the respondents are male, middle-aged, at the higher administrative levels, have the appropriate qualification, and have sufficient experience in their field of work, which gives a positive indication of their ability to answer the questionnaire questions which achieving the objectives of the study.

6. DATA ANALYSIS

6.1 Validity, reliability and stability of the questionnaire

Verifying the validity, stability, and reliability of the study instrument to measure the internal consistency between its paragraphs, it was presented to a number of academics, and specialists in the field of entrepreneurial strategy to express their opinion, based on the suggestions and observations they provided, the required amendments were made, included some words of the paragraph according to structure, language, and content. Cronbach's alpha coefficient analysis showed the stability and reliability of the study tool, as the result of the stability coefficient was about (70) %, which is less than the statistically acceptable percentage (Hire et al., 2018). Table 2.

Table 2: The values of (Cronbach's Alpha Coefficient).

The value of the internal consistency stability coefficient Cronbach Alpha	number of paragraphs	Study dimensions	N.
.679	5	Emotional Intelligence	1
.727	5	Strategic Intelligence	2
.776	5	Competitive Intelligence	3
.789	5	Competitors Orientation	4
.668	5	Customer Orientation	6
.632	5	Technology Orientation	7
.707	5	Learning Orientation	8
.687	5	Entrepreneurship Orientation	9
.712	5	TAM (Technology acceptance model)	10

Source: Prepared by the researcher based on the statistical analysis program (SPSS)

Table. 2 Shows that all the values of the coefficient Cronbach's alpha for the study variables ranged between (.632 - .789) which is a higher value than the recognized measures for stability (60) %, this is an indication of the existence of internal consistency between the study tool paragraphs, its reliability, and the possibility to conduct the statistical analysis (Hair et al., 2018).

6.2 The Suitability of the Study Model for Statistical Methods

To illustrate the suitability of the study model, multiple linear correlations were tested; (Pearson) correlation coefficients were used to detect the problem of the multiple linear correlations between all the variables of the study as in Table (3).

Table 3: Correlation matrix of all variables

	EI	SI	CI	CO	CUO	TOW	LO	EO	TAM
EI	1								
SI	.546**	1							
CI	.561**	.666**	1						
CO	.465**	.560**	.624**	1					
CUO	.274**	.388**	.457**	.567**	1				
TO	.141	.331**	.333**	.361**	.558**	1			
LO	.283**	.380**	.523**	.540**	.452**	.444**	1		
EO	.017	.279**	.225*	.353**	.507**	.518**	.403**	1	
TAM	.292**	.375**	.470**	.476**	.310**	.480**	.430**	.304**	1
** . Correlation is significant at the 0.01 level (2-tailed).									
* . Correlation is significant at the 0.05 level (2-tailed).									

It is clear from table 3 that the values of Pearson's correlation coefficients for the sub-variables of the (independent, dependent, and mediator) ranged between (.279** - .666**) which is less than (0.80), the highest value of the correlation coefficient was between the (SI) and (CO), this indicates the absence of the phenomenon of multiple linear correlations (Gujarati, 2017).

6.3 Descriptive Statistics for Main Variables of Study

To identify the attitudes of the study sample members about the main variables of the study model, arithmetic averages, standard deviations, Skewness, Kurtosis, and relative importance, were used for each variable, and the results as in table 4.

Table 4: Arithmetic averages and standard deviations of the study sample

Descriptive Statistics									
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
TAM	122	2.60	5.00	3.6607	.43171	-.020-	.219	-.079-	.435
BI	122	1.73	4.53	3.4235	.51611	-.729-	.219	.933	.435
SO	122	2.40	4.84	3.7348	.40063	-.424-	.219	.726	.435

Table 4. indicates that the level of the relative importance of the dependent variable (SO) came in the first place, and second place comes (TAM) at high relative importance. In third place comes the independent variable (BI). All the Skewness coefficient and Kurtosis test values came between ($3 \pm$) which indicated that the data follow the normal distribution (Hair et al., 2018).

6.4 Descriptive Statistics for Sub-Variables

To identify the attitudes of the study members about the sub-variables, arithmetic averages, and standard deviations were used for each variable as in table 5.

Table 5: Arithmetic averages and standard deviations of the study members

Descriptive Statistics for sub variables:									
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
EI	122	2.00	4.80	3.6000	.57954	-.323-	.219	.071	.435
SI	122	1.40	4.60	3.3656	.54648	-.713-	.219	1.699	.435
CI	122	1.00	4.60	3.3049	.68621	-.917-	.219	1.398	.435
CO	122	1.40	5.00	3.6656	.64099	-.666-	.219	1.055	.435
CUO	122	2.20	5.00	3.8295	.57247	-.061-	.219	.058	.435
TO	122	2.40	5.00	3.7934	.49656	-.479-	.219	.191	.435
LO	122	2.60	4.40	3.5508	.41724	-.244-	.219	-.276-	.435
EO	122	2.80	5.00	3.8344	.50367	.033	.219	-.323-	.435
Valid N (list wise)	122								

Table 5. indicates that the level of relative importance for the sub-variable (EO) which comes in first place with highest mean value (3.834), while (CL) came in last place with medium mean value (3.304).

6.5 The hypothesis testing

It was confirmed that there was no high correlation between the independent variables using the coefficient of variance inflation test (VIF), and the permissible variance (Tolerance) test that indicates for each of the study variables, found that the coefficient of variance inflation does not exceed the value (10), and the Permissible variance test value is greater than (0.05) as table 6 shows.

Table 6: The (Multi-collinearity) analysis.

Coefficients Model	Collinearity Statistics		
	(Constant)	Tolerance	VIF
1	EI	.632	1.582
	SI	.513	1.951
	CI	.500	1.998
a Dependent Variable: CO			

(H₀₁): There is no statistically significant impact at the level of significance ($P \leq 0.050$) of Business intelligence by its dimensions (EI, SI, CI) on the strategic orientation by its dimension (CUO, CO, TO, LO, and L&EO) in the Jordanian Pharmaceutical Industrial Companies.

Table 7: Results of the simple linear regression analysis.

Coefficients					ANOVA			Model Summary		variable
Sig t*	T	Standard error	β	Statement	Sig F*	DF	F	R ²	R	
0.000	7.444	.059	.562	SO	.000	1	55.409	.316	.562	BI

*The effect is statistically significant at ($p \leq 0.05$).

Table 7 shows the results of the statistical test of the main hypotheses model, represented by business intelligence with its dimensions (EO, SI, CI) on strategic orientation with its dimensions (CUO, CO, TO, LO, EO), from the model summary the value of the correlation coefficient ($R = .562$), the value of ($R^2 = 0.316$) BI this meaning that the BI dimension explained (31.6%) of the variance in (SO) with its combined dimensions, indicating the mean positive explanatory power of the study model. Analysis of variance (ANOVA) showed that the calculated value ($F=55.409$) at the significance level ($\text{Sig.} = 0.000$), which confirms the significance of the regression at the P level (0.050), ($DF = 1$). Table 7. indicates that the value of ($\beta=.562$) coefficients for the individual relationships between the two variables (dependent, independent), and the value of ($t=7.444$) at the significance level ($\text{Sig.t} = .000$), which indicates that The effect of this dimension is significant. Therefore, we can't accept the first main null hypothesis, and accept the alternative one that says: 'There is a statistically significant effect on the level of significance'. ($p \leq 0.050$) for business intelligence in its dimensions (EI, SI, CI) on strategic orientation in its dimensions (CUO, CO, TO, LO, L&EO) in Jordanian pharmaceutical companies.

(H₀₁₋₁): There is no statistically significant impact at the level of significance ($P \leq 0.050$) of BI by its combined dimensions on CUO in the Jordanian Pharmaceutical Industrial Companies.

Table 8: Results of the standard multiple regression analysis.

Coefficients					ANOVA			Model Summery		variable
Sig t*	T	Standard error	β	Statement	Sig F*	DF	F	R ²	R	
0.000	4.201	.091	.411	CUO	.000b	3	30.223	.435	.659a	BI

a. Dependent Variable: CO

b. Predictors: (Constant), CI, EI, SI

Table 8. shows the results of the statistical analysis of this sub-hypotheses, from model summery the value of the correlation coefficient ($R = .569$), the value of ($R^2 = .435$) for the BI, which means that the BI explained (43.5%) of the variance in CUO, this indicates the medium positive explanatory power of the study model. The analysis of variance (ANOVA) showed that the calculated value ($F=30.223$) at the level of significance (Sig. $F=0.000^b$), this confirms the significance of the regression at the level of $P \leq (0.050)$, at ($DF= 3$). Table 8. Indicates that the coefficients value of ($\beta= .411$) for individual relationships between variables (dependent, independent), the value of ($t= 4.201$) at the significance level (Sig. $t=.000$), which indicates that the effect of this dimension is significant. We can't accept the first null sub-hypothesis, accepting the alternative one that says: "There is a statistically significant effect at the level of significance." ($p \leq 0.050$) for (BI) by its combined dimensions on (CUO) in the Jordanian Pharmaceutical Industrial Companies.

(H₀1-2): There is no statistically significant impact at the level of significance ($P \leq 0.050$) of BI by its combined dimensions on CO in the Jordanian Pharmaceutical Industrial Companies.

Table 9: Results of the simple linear regression analysis.

Coefficients					ANOVA			Model Summery		variable
Sig t*	T	Standard error	β	Statement	Sig F*	DF	F	R ²	R ^a	
0.002	4.201	.096	.561	CO	.000b	3	11.208	.222	.471a	BI

*The effect is statistically significant at ($p \leq 0.05$).

a. Dependent Variable: CUO

b. Predictors: (Constant), CI, EI, SI

Table 9. shows the results of the statistical analysis. From the (Model Summery) the value of the correlation coefficient ($R= .471$), and the value of ($R^2 = .222$) for the BI, which means that BI explained (22.2%) of the variance in CO, this indicates the explanatory positive weakness power of this model. The analysis of variance (ANOVA) showed that the calculated ($F=11.208$) at the level of significance (Sig. $F=0.000^b$), this confirms the significance of the regression at the level of $P \leq (0.050)$, at ($DF= 3$). Table 9. Indicates that the coefficients value of ($\beta = .561$) for individual relationships between both variables (independent, sub-dependent), the value of ($t= 4.201$) at the significance level (Sig. $t=.002$), which indicates the effect of this dimension is significant. Therefore, we can't accept this null sub-hypothesis and accept the alternative one

that says: “There is a statistically significant effect at the level of significance.” ($p \leq 0.050$) for Business intelligence by its combined dimensions on Competitor Orientation in the Jordanian Pharmaceutical Industrial Companies.

(H_{01-3}): There is no statistically significant impact at the level of significance ($P \leq 0.050$) of BI by its combined dimensions on TO in the Jordanian Pharmaceutical Industrial Companies.

Table 10: Results of the simple linear regression analysis for the second main hypotheses.

Coefficients					ANOVA			Model Summary		variable
Sig t*	T	Standard error	β	Statement	Sig F*	DF	F	R ²	R ^a	
0.043	9.546	.087	.247	TO	.000 ^b	3	6.507	.580	.762	BI

*The effect is statistically significant at ($p \leq 0.05$).

a. Dependent Variable: TO

b. Predictors: (Constant), CI, EI, SI

Table 10. shows the results of the statistical analysis. From (Model Summary) the value of the ($R = .762$), the value of the coefficient of determination for the BI ($R^2 = .580$), which means that BI explained (58.0%) of the variance in TO, this indicates a Strong positive explanatory power that reflects the strength of the study model. The analysis of variance (ANOVA) showed that the calculated ($F = 6.507$) at the level of significance (Sig. $F = 0.000^b$), this confirms the significance of the regression at the level of $P \leq (0.050)$, at ($DF = 3$). Table 10. Indicates that the coefficients value of ($\beta = .247$) for individual relationships between both variables (independent, sub- dependent), the value of ($t = 9.546$) at the significance level (Sig.t=0.043), which indicates that the effect of this dimension is significant. We can't accept the third main null sub-hypothesis and accept the alternative one that says: “There is a statistically significant effect at the level of significance.” ($p \leq 0.050$) for the Business intelligence by its combined dimensions on Technology Orientation in the Jordanian Pharmaceutical Industrial Companies.

(H_{01-4}): There is no statistically significant impact at the level of significance ($P \leq 0.050$) of BI by its combined dimensions on LO in the Jordanian Pharmaceutical Industrial Companies.

Table 11: Results of the simple linear regression analysis

Coefficients					ANOVA			Model Summary		variable
Sig t*	T	Standard error	β	Statement	Sig F*	DF	F	R ²	R ^a	
0.000	4.483	.067	.496	LO	.000 ^b	3	14.967	.276	.525	BI

*The effect is statistically significant at ($p \leq 0.05$).

a. Dependent Variable: LO

b. Predictors: (Constant), CI, EI, SI

Table 11. shows the results of the statistical analysis. From (Model Summary) the value of the

correlation coefficient ($R = .525$), the value of the coefficient of determination for the BI ($R^2 = .279$), which means that BI explained (27.9%) of the variance in LO, this indicates a weak positive explanatory power that reflects the weakness of the study model. The analysis of variance (ANOVA) showed that the calculated ($F=14.967$) at the level of significance (Sig. $F=0.00b$), this confirms the significance of the regression at the level of $P \leq (0.050)$, at ($DF=3$). Table 11. Indicates that the coefficients value of (β) for individual relationships between both variables (independent, sub-dependent) (.496), the value of ($t = 4.483$) at the significance level (Sig. $t=0.000$), which indicates that the effect of this dimension is significant. Therefore, we can't accept the main null sub-hypothesis and accept the alternative one that says: "There is a statistically significant effect at the level of significance." ($p \leq 0.050$) for Business intelligence by its combined dimensions on Learning Orientation in the Jordanian Pharmaceutical Industrial Companies.

(H01-5): There is no statistically significant impact at the level of significance ($P \leq 0.050$) of BI by its combined dimensions on EO in the Jordanian Pharmaceutical Industrial Companies.

Table 12: Results of the simple linear regression analysis.

Coefficients					ANOVA			Model Summery		variable
Sig t*	T	Standar error	β	Statement	Sig F*	DF	F	R ²	R ^a	
0.213	1.252	.090	.153	EO	.002 ^b	3	5.159	.116	.341	BI

*The effect is statistically significant at ($p \leq 0.05$)

a. Dependent Variable: EO

b. Predictors: (Constant), CI, EI, SI

Table 12. shows the results of the statistical analysis. From (Model Summery) the value of ($R = .341$), the value of the coefficient of determination for the BI ($R^2 = .116$), which means that BI explained (11.6%) of the variance in EO, this indicates a very week positive explanatory power. The analysis of variance (ANOVA) showed that the calculated ($F=5.159$) at the level of significance (Sig. $F=0.002^b$), this confirms the un-significance of the regression at the level of $P \leq (0.050)$, at ($DF= 3$). Table 12. Indicates that the coefficients value of (β) for individual relationships between both variables (dependent, sub-in dependent) (.153), the value of ($t = 1.252$) at the significance level (Sig. $t=.213$), which indicates that the effect of this dimension is not significant. Therefore, we accept the main null sub-hypothesis that says: "There is no statistically significant effect at the level of significance." ($p \leq 0.050$) for the BI by its combined dimensions on EO in the Jordanian Pharmaceutical Industrial companies.

(H02): There is no statistically significant impact at the level of significance ($P \leq 0.050$) of BI by its combined dimensions on SO by its combined dimensions through TAM in the Jordanian Pharmaceutical Industrial Companies.

To test this hypothesis, a path analysis in the Amos (SEM) program was supported by (SPSS) to verify the presence of direct and indirect impact of BI in its combined dimension in achieving

SO in the presence of the TAM in the Jordanian pharmaceutical companies. The SEM technique was used through Amos software to analyze the mediation of TAMs in the relationship between BI and SO, where it is clear that all paths were statistically significant as all P-values were less than (0.05), and the P-value was (0.000) meaning that there was a statistically significant mediation of TAMs in the effect of BI on SO. Figure (2, 3,4). The mediation type was partly due to the presence of a strong direct effect of Business intelligence on Strategic orientation, and based on the above results, we reject the null hypothesis and accept the alternative say; there is a partial statistically significant impact at the level of significance ($P \leq 0.050$) of Business intelligence by its combined dimensions in achieving the Strategic orientation by its combined dimensions through TAMs in the Jordanian Pharmaceutical Industrial Companies.

Input:		Test statistic:	Std. Error:	p-value:
a	0.376	Sobel test:	3.41518209	0.03490063
b	0.317	Aroian test:	3.38115288	0.00072182
s _a	0.068	Goodman test:	3.45025988	0.00056005
s _b	0.073	Reset all	Calculate	

Figure 2: Mediation analysis (Sobel test)

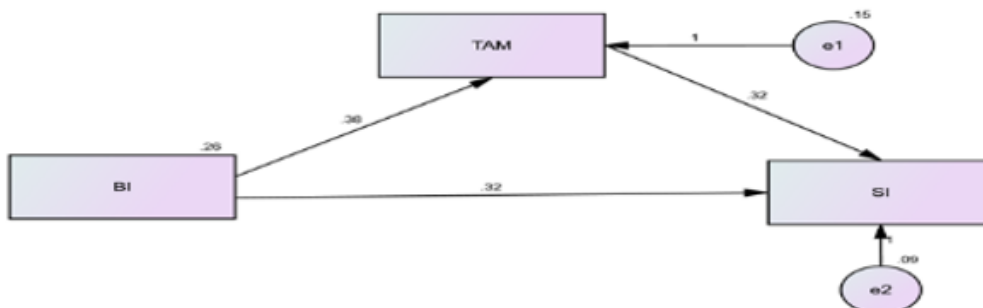


Figure 3: Unstandardized path model

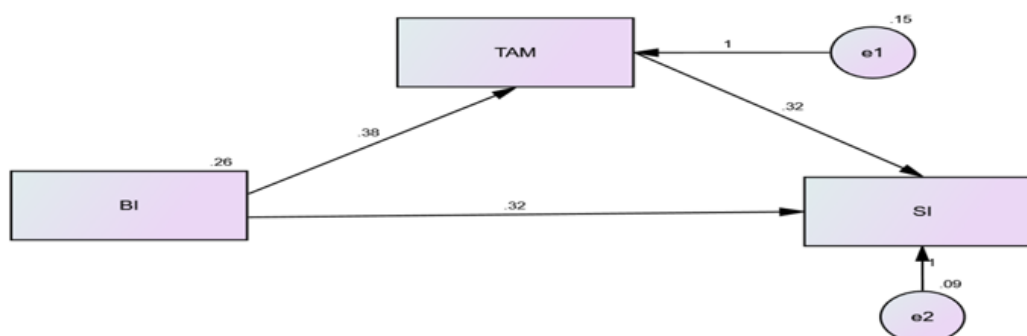


Figure 4: Standardized path model

7. DISCUSSION, CONCLUSIONS AND FINDINGS

There is a positive indication of adopting business intelligence as a methodology for preparing and implementing various strategic orientations and developing them continuously, thus achieving institutional excellence and expanding their market share, despite the medium interest in. BI came last in terms of relative importance, which indicates the medium interest of these companies in BI, due to the novelty of this concept, their poor knowledge of this type of strategy and its role in providing information about the highly competitive environment.

The TAM came in second in relative importance, which reflects weak awareness of the importance and benefit of using technology at the individual and organizational level.

The results of the descriptive analysis of the sub-variables of the main dimensions (SO) showed that there is a relatively high interest in (CUO and EO), which indicates the interest of these companies in achieving a competitive advantage and entering new markets, or developing their products in a way that makes them distinctive, with more committed to customer service, staying in constant contact with them through customer relationship management, to obtain their satisfaction and loyalty, which gives them a sustainable competitive advantage. Monitors technological developments and new relevant scientific discoveries, for its activities, supports all technological research and development programs to enhance its competitive position, cooperates with specialized agencies in technological fields related to its production processes, using artificial intelligence techniques to produce pioneering products.

The CO sub-variable came in medium relative importance, which reflects the medium level of interest of these companies in studying and analyzing the operational and competitive strategies of their competitors. Uses and exchanges information within the company's divisions or units about competitors' strategies, using information about their competitors' products as a benchmark in designing their products.

The LO sub-variable was at weak relative significance, indicating that these companies are not interested in the employee learning process considering it as an acquisition, which limited their ability to deal with challenges and study them to learn from their mistakes.

The Results of the Study Hypotheses Analysis (Conclusions)

The analysis showed that there is a statistically significant effect for Business intelligence by its dimensions (EI, SI, CI) on strategic orientation by its dimension (CUO, CO, TO, LO, and L&EO).

There is a statistically significant effect of BI by its combined dimensions on CUO. There is a statistically significant effect of BI by its combined dimensions on CO.

There is a statistically significant effect of BI by its combined dimensions on TO. There is a statistically significant effect of BI by its combined dimensions on LO.

There is a statistically significant effect of Business intelligence by its combined dimensions on (Leadership & Entrepreneurship Orientation). Finally, there is a direct and indirect impact of BI in its combined dimension in SO in the presence of the TAM. The mediation type was

partly. due to the presence of a medium direct effect of Business intelligence on Strategic orientation in Jordanian Pharmaceutical Industrial Companies.

Based on the previous results, the study recommended:

- a) It is necessary to use business intelligence at strategic level due to its importance and positive impact on raising the organizational performance, sustainability.
- b) Providing modern technical, information, and communication systems to provide data that supports the process of strategic orientation decisions.
- c) Establishing a special business intelligence unit at the level of corporate management or higher departments to provide information to employees on time.
- d) Using innovative and creative methods to overcome challenges in their competitive environment.
- e) Attracting creative, talented, and innovative human resources as a competitive factor in the knowledge age.
- f) The need to expand future studies that focus on another intermediate variable such as strategic vigilance or strategic foresight.

The results of this study must be viewed very carefully, bearing in mind some limitations. Whether it is related to the study population, which is a very homogeneous professional community, is probably difficult to accurately describe, in addition to some limitations of this type of applied research and related to methodology. All required measurements of error and fit described in the relevant literature applied in this research have been made, and we can never be confident enough in the strength of conclusions and in minimizing errors and random effects.

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