

Export Determinants: A Function for Competitive Advantages An Applied Study in Jordanian Medicament Companies

Dr. Abed Alsttar Mustafa Assayah*

Department of Financial and Administrative Sciences, Irbid University College, Al-Balqa Applied University, Jordan. E-mail: abedalsttar@yahoo.com

Received May 12, 2020; Accepted July 15, 2020

ISSN: 1735-188X

DOI: 10.14704/WEB/V17I2/WEB17015

Abstract

The study aimed at testing the effect of export determinants on the competitive advantages from the point of view of a sample that consists of (194) personnel working for Jordanian medicament companies. In order to achieve the objectives of the study, a sample clarifying the relations and the effects between the variants of the study was designed, from which two hypotheses were derived: one is concerned with correlations and the other is related to the effects. The relations were tested based on Spearman Correlation Coefficient and the effect of the Multiple Linear Regression with a confidence interval estimations of about $P \leq 0.05$. An analysis of the results and its interpretation has proved that:

1- There is a strong inverse relation with a moral correlation coefficient ($r_s = 0.91$) between export determinants and competitive advantages.

2- Counting on the export determinants as a function for the competitive advantages as the Regression sample R^2 has showed that 74.8% of contrast of the competitive advantages is attributed to the export determinants.

Keywords

Export Determinants, Competitive Advantages, Foreign Medicament Companies.

Introduction

Competitive strategies are necessarily built on some sources of competitive advantages. Due to the growing interest in business strategies, the rules of competitive advantages and their spread are now an important part of the study of the strategic theory. Export activities are getting an increasing care because of the global economic interdependence, the contribution of foreign trade to the social growth, as well as the growing trade deficit for both developed and developing countries alike. Focus is on stimulating exports, rather than restricting imports. Export activities involve globalization of production and markets; and this requires that the company manufactures its products in its home country and then

exports those products to foreign markets. Its success depends on the ability to build and defend competitive advantages against competitors.

Competitive advantages unfold in a unique position developed by the company over its competitors, and that the virtual evidence of competitive advantage is the point of preference in a particular industry or market. In order to create and sustain competitive advantages (Kraaijenbrink et. al, 2010, pp: 349-372), companies deploy and develop their resources and quality skills (Distinctive Competences). In this paper we use the term “multi- skills” (as a competitive force - and a tool for competitive advantage) to describe the capabilities, skills, technologies and resources that enable the company to differentiate itself from its competitors and use them in the development of its competitive advantages (Fernandez et al, 2018, p:29). Ideally speaking, the company’s competence or skill becomes distinct and different when competitors are not able to imitate. Valuable capabilities and skills include activities such as product designing and manufacturing at a lower cost, advanced technology, high quality and superior distribution.

The essence of organizational strategy lies in the convergence of strengths and distinctive competences with opportunities in the various activities in a way that enables businesses to enjoy competitive advantages as compared to competitors who are dealing with those same activities. In contrast, the competitive strategies aim at achieving preferred convergence between distinctive competences of the company and opportunities available in local and international markets in which the company intends to compete. But this convergence producing competitive advantages, and their nature quickly change due to environmental changes, and because of these changes, competitive advantages change as well - this is what we call Punctuated Competitive Advantages, which means that the long periods of balanced competitive advantages when distinctive competences and industry structure are stable are interrupted by periods of rapid change when distinctive competences and industry structure change (Voigt et al., 2017,pp:25-26).

The theme of this paper is to deepen understanding about the punctuated competitive advantages through conducting a theoretical and experimental analysis of the export capabilities as one of the multiple competences of the competitive advantages. We will show how companies in different industries, situations and cases develop their specific competences and efficiencies to build and defend competitive advantages. These activities form the basis of SOWT analysis.

One: Multiple Competences

Root of Competitive Advantages

Distinctive Competences allow the company to differentiate its products or achieve significant reduction in costs compared to its competitors, and thus gains a competitive advantage. Distinctive Competences come from two sources, one supports the other: tangible and intangible resources, and capabilities which refer to the company's skills in mixing their resources and put it to productive use. In order for the company to acquire distinctive competence, it must have at least either high-value unique resources in addition to the necessary capabilities to make use of these resources and invest them or a unique ability in the management of various resources (John Ackerman & Colin, 2007, pp: 708 - 709). The distinctive competence of the company is at its strongest status when having unique resources of high value and unique capabilities in the management of those resources. However, businesses win and lose competitive advantages; what is the reason for this?.

Is marketing poor? Is Quality poor? We do not think so. It is true that a focus on quality leads to success, however that companies bridge the quality gap, the competition foundations turned so that the quality and price have become self-evident in the market which competitors are good at. In spite of the importance of quality, but it is a condition that is not sufficient for differentiation though its absence brings failure. The defensive response towards competitor innovations often fails to provide a profound competitive advantage and this means following the competition rather than leading it. From here, contradiction is seen in industries whose leadership requires differentiation; as differentiation may soon be imitated by capable competitors who attack the point of difference or differentiation of the leader which weakens this differentiation. Excellence, therefore, requires creation of new sources of competitive advantage, rather than imitating industry leaders. This is done through superior efficiency, superior quality, superior modernization, and superior response to customers (Hill & Jones, 2013, pp: 183: 195).

When bases and rules of competition turn, competitors win and lose relative advantage and are forced to search for new sources of differentiation (Miller, 2003, pp: 10-13). Rationality requires to transform the bases of the competition to new dimensions, rather than seeking costly excellence in productivity and quality, but the conversion of competition bases requires new competitive skills and not only deepening the current skills (Whiteney & Cooperider, 2009, pp: 25-32). So innovations per worker would create efficient one that is more likely to be subject to rapid imitation by the competent

competitors, whereas the multi-competences serve to strengthen the multiple dimensions of the company's competitive position and enable it to compete effectively so that competitors cannot easily imitate or undermine it. To achieve this, building and defending competitive advantages require production of competitive strategies based on multi-competences that lead to deep synergy that will strengthen and consolidate the existing competitive advantages (Smith, 2010, pp: 115 - 116).

When multi competences interact, they produce unique advantages not available to those competitors competing over competence dimension as being reactive and supporting each other (Fernandeza, et al, 2018, p:31). Each competence evolves and remains at a lower cost than if they were alone. When there is a strategy based on the multi-competences of multiple and economies of scale resulting from the interaction of multi competences, a competitive advantage would be solid, hard to imitate and more likely to continue and stay (Rose, et al, 2010, PP: 493 – 494).

When a mixture of multi-competences, the foundations of competition would change, and these changes will push competitors to compete in the new dimensions or face the risk of declined market share in favour of innovator. In spite of the importance of created advantages, they will be weak due to new forms of competition, and this is the reason for the interruption and unsustainability of competitive advantages. However, the ability to convert competition based on multi-competences requires identification and then development and investment of the necessary strategies (McFarland, 2008, P: 2030). In order to strengthen the multi-competences that would lead to a sustainable competitive advantage, the company should determine the added value expected by the customer. The strategies should include the weaknesses of the leader and identify the mixture of competences required to attack or defend areas of weakness (Julian, yoo & Hanssens, 2008, pp: 50-53). The process of developing new competences requires constant search for new ways to add value not only in the centre of areas of the company and technology, but also across the wide range of activities that make up its business. This involves prediction, expectation and even creativity to the needs of customers and not responding to them when demand becomes apparent (Doris & Guler, 2011, p: 339). The company's ability to perceive, merge and absorb the new valuable information is a key to survival because a competitive advantage can be derived from any of the various activities of the company.

In spite of the relentless pursuit of companies to achieve multi- competences, but it should be confirmed that they are not ends by themselves, but means used to build good strategies. In recent years, foundations of competition turned cumulatively from

productivity to quality to service and flexible manufacturing and that this change in competences has turned the foundations of competition to a new set of rules and frameworks. In brief, multi-competences enable the company and its strategies to become “Moving Targets” and therefore they will be difficult to identify and attack by competitors. Dynamic strategies and mix of skills would force competitors to adapt or amend competences on which they base; while well- planned transition strategies offer permanently a quick advantage even though competitors own equal competences; and if there is a shortage of equal competences the strategic advantage will last long and till competitors develop those skills or new ones, then foundations of competition will entirely turn into the industry (Thomas & James, 1999, P: 145).

Because a strategy is unable to provide a sustainable competitive advantage, the search for new strategies will be more virulent, and industry leaders and challengers will try to surprise competitors by moving from a combination of competences to another in ways that will exploit their strengths and the weaknesses of and thus weak competitors will lose their foothold in the market and be forced to retreat to small market shares and compete in less competitive sectors and industries (Polad, 2010, P: 6253).

The company should consider offensively or defensively about how they could turn the pattern of current competition for the industry, and learn how to develop multi-competences. Defensively, a company needs to expand the boundaries of their industry and identify current situation of the state of productive art in the areas of performance, price, quality, service, and other dimensions of competitiveness to ensure that competitors do not offer superior value over them. The learned companies contribute to transforming the promising idea into a new competitive advantage competitive; therefore, learning must be disseminated in all aspects of the company because it provides the skills needed to make competitive strategies, and without learning the combination competences become obsolete and competitive advantages are quickly matched by competitors (Naveed, Rasheed & Bahaudin, 2013, PP: 90 – 91). A company has to learn how to respond to consumers, accelerate the introduction of new products to different markets, and seek to continuous improvement not only in the areas of its historical strength, but also in any activity that would make differentiation an advantage for it. Effect of learning is usually cumulative. Customers expect new forms of value that must be added to the forms already developed. The balance cycle (Innovation - Imitation) refers to the fact that industry leaders should educate customers about what they demand, and this is through the identification of the current state of performance, price, service, and other dimensions, and customers must learn also how to judge competitive offerings under these criteria (David, 2010, P: 173).

Two: Methodology

Problem of the Study

Companies in all industries are facing pressures towards internationalization, so that the world has become a small place, and businesses need to think about the production and sale of goods to consumers regardless of where they are, and here internationalization is an interesting opportunity for many companies. However, the globalization of production and markets involves a lot of risks and threats. The more markets become open feel, the more a lot of businesses will feel competition and severely snapping up markets by the most efficient companies abroad, and consequently they gain and lose their competitive advantages. In this context, this study is to provide evidence and arguments about (how export capabilities likely affect competitive advantages). The research problem lies in the emergence and growth of some worrying indicators (e.g. deceleration of exports, decline of sales in some markets, loss of some competitive advantages) in the Jordanian medicaments industry sector.

Years \ Indicators	2017	2018	Change
Value Traded (JD)	10,243,159	5,794,599	-4448560
Market Capitalization (JD)	88,797,500	64,838,125	-23959375
Turnover Ratio %	8.55	7.14	-1.41
Total Assets Turnover (Times)	0.54	0.54	0.00
Working Capital (JD)	40,558,459	22,722,637	-17835822
Current Ratio (Times)	1.60	1.25	-0.35
Debit Ratio %	51.69	60.18	8.49
Total Shareholders Equity(JD)	87,489,865	77,234,007	-10255858
Total Liabilities & Shareholders Equity	183,315,812	196,924,717	13608905
Total Liabilities	94,752,947	118,511,435	23758488
Retained Earnings	-7,772,203	-18,825,007	-11052804

Source: Amman Financial Market

To identify and understand causes of those worrying indicators, a prospective study was conducted through designing and distributing a questionnaire to a random sample of (34) managers in medicament companies of Jordan. Collected data proved that there were problems related to export capabilities and competitive advantages our research is to study, describe and assess.

Thus, the research problem is clarified by answering the following questions:

1. Are there correlations and moral impact between export determinants and competitive advantages? What is the nature of those correlations and impacts? What is their direction?
2. What are the export determinants that affect competitive advantages? What is the relative importance of those determinants? Our focus have been on the examination of determinants in the internal environment: organizational (company size, resources, and experience) and administrative (management ambitions, expectations, and desire); and the determinants in the external environment: industry (its kind, structure, and intensity of competition), and markets (their saturation, area, depth, attractiveness, and the cultural similarity).
3. What is the nature of the prevailing competitive advantages? Our focus has been to examine the price competitive advantages in terms of (direct cost of raw materials, direct cost of labor, indirect production costs, and other costs) and non-price competitive advantages represented by (quality, delivery, flexibility, and creativity).

Model of the Study

To answer the questions of the study, and to formulate hypotheses a hypothetical model was built to show the presumed causal relationships between variables of the study.

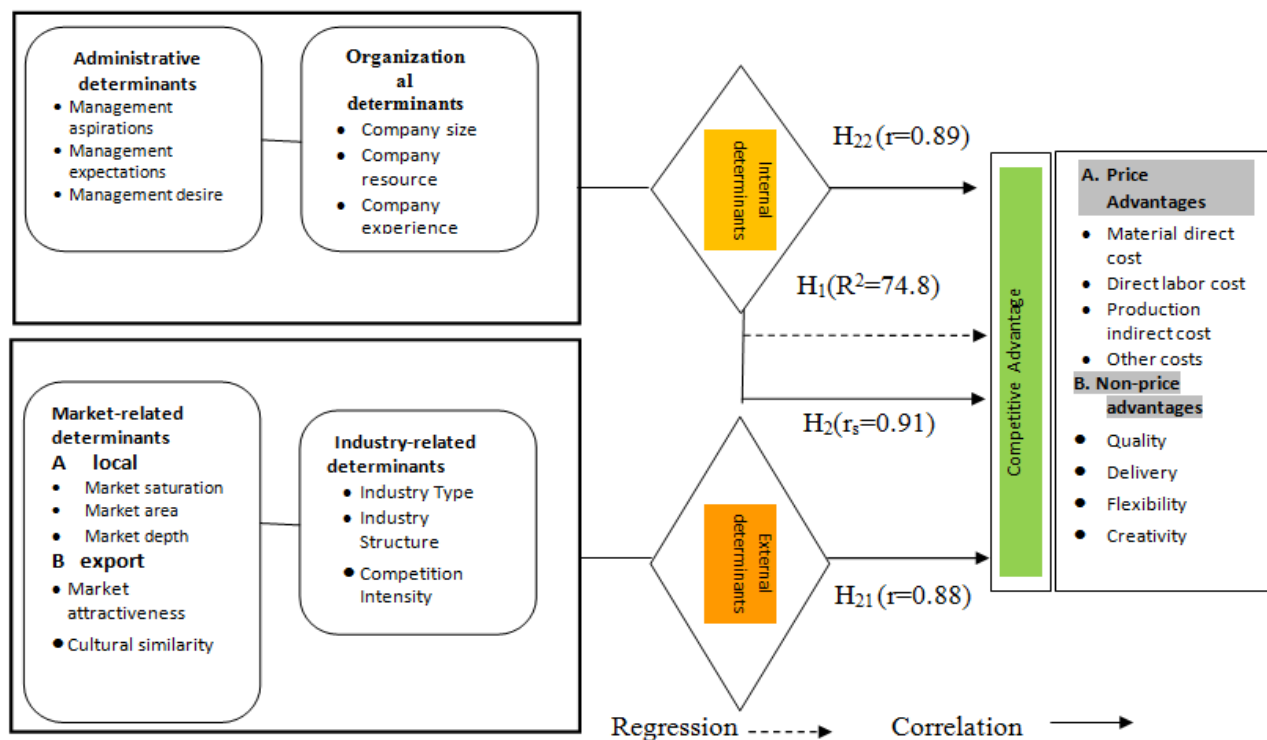


Fig. 1 Study Hypothetical Model

The study model includes (22) main variables measured by a questionnaire designed for this purpose. Variables were distributed based on three key areas (determinants of the internal environment, determinants of the external environment, and competitive advantages). Those variables were determined based on researches and studies of (Rosane, Gertner & Guthery, 2004, p: 5), (Jorge, Silva & Angela, 2011, p: 113), (Ito, et al, 2010, p: 9), (Mas, et al, 2012, p: 121), (Rafael, Joan & Canals, 2008, P: 98), (Miuyn, 2010, P: 129).

Table 2 Study main and sub-variables

Field	Main variable	Type	Sub-variables	Main variable description	
Internal Environment determinants	Organizational determinants	Independent	Company size Company resources Company experience	Variables within the company representing strengths or weaknesses affecting the export performance and attitude of the company in international markets	
	Administrative determinants	Independent	Management aspirations Management expectations Management desire	Represented by the thinking in strategic management and its vision, which may open or block the way to the company in international markets	
External Environment determinants	Industry-related determinants	Independent	Industry type Industry structure Industry intensity	Factors related to the nature of the industry that push or inhibit the company in international markets.	
	market - related determinants	Local	Independent	Market saturation Market area Market depth	Variables related to market that determine the strength and intensity of competition, and thus produce opportunities and threats
		Export	Independent	Market attractiveness Cultural similarity	
Competitive advantages	Price advantages	Dependent	Direct material cost Direct labor cost Indirect production cost Other costs	Strengths that may allow the company to achieve significant reductions in one or more of the components of the costs compared to its competitors	
	Non- price advantages	Dependent	Quality Delivery Flexibility Creativity	Strengths that allow the company to differentiate its products in one or more of the attributes of differentiation.	

Study Hypotheses

The study is based on a set of hypotheses that aim to examine the nature of the relationships and impacts between the independent variable (export determinants) and its contained sub-variables, and the dependent variable (competitive advantages) and its contained sub-variables.

First Main Hypothesis (H₁): Export determinants (as well as their variants) morally affect competitive advantages at the level ($\alpha = 0.05$) in Jordanian medicament companies.

Second Main Hypothesis (H₂): An inverse relationship is expected with moral significance between export determinants and competitive advantages at the level ($\alpha = 0.05$) in Jordanian medicament companies.

The following sub-hypotheses were derived:

(H₂₁): Export determinants in the internal environment of the company are associated with inverse relations of moral significance with the competitive advantages at the level ($\alpha = 0.05$).

(H₂₂): Export determinants in the external environment of the company are associated with inverse relations of moral significance with the competitive advantages at the level ($\alpha = 0.05$).

Data were collected by a questionnaire developed and judged to cover all study variables and dimensions.

To ensure measurement validity and reliability, the questionnaire were distributed to (27) managers working in the companies being the community of the study, and then redistributed after two weeks, and validity and reliability were based on the equation of Cronbach – Alpha.

The results showed high reliability that can be adopted when analysing and drawing conclusions.

Table 3 Statistical Tests of Questionnaire Validity and Stability

Field	Main variables	Sub-variables	Cronbach- Alpha ¹		Constructive Validity Tests				
			For Variable	For field	Loading Factor	Common Factor	Potential value	Explained contrast ²	KMO ³
Internal Environment determinants	Organizational determinants	Company size	0.886	0.898	0.823	0.650	5.861	56.67	0.896
		Company resource	0.905		0.806	0.633			
		Company experience	0.911		0.828	0.669			
	Administrative determinants	Management aspirations	0.794	0.796	0.823	0.659	5.273	54.98	0.878
		Management expectations	0.801		0.675	0.441			
		Management desire	0.768		0.774	0.582			
External Environment determinants	Industry-related determinants	Industry Type	0.820	0.841	0.821	0.657	5.752	55.89	0.889
		Industry Structure	0.808		0.767	0.571			
		Competition Intensity	0.826		0.721	0.504			
	Market-related determinants	Market saturation	0.891	0.847	0.749	0.545	5.896	57.21	0.916
		Market area	0.831		0.701	0.475			
		Market depth	0.822		0.628	0.381			
		Market attractiveness	0.788		0.667	0.425			
		Cultural similarity	0.804		0.678	0.443			
Competitive Advantage	Price Advantages	Material direct cost	0.873	0.885	0.797	0.635	5.861	56.71	0.898
		Direct labor cost	0.852		0.793	0.636			
		Production indirect cost	0.863		0.818	0.670			
		Other costs	0.871		0.798	0.639			
	Non-price advantages	Quality	0.801	0.826	0.705	0.497	5.684	55.61	0.881
		Delivery	0.785		0.740	0.547			
		Flexibility	0.819		0.758	0.573			
		Creativity	0.828		0.817	0.668			

1-The value of the Cronbach-Alpha coefficient greater than (0. 6) is statistically acceptable.(Sekran, 2003)
 2- Explains the amount by which the variable is explained by its dimension. (Hair et al, 2009.pp:119-125)
 3 -KMO value between (0-1), variable value less than (0. 5) rejected.

Constructive Validity Test was performed to verify that the questionnaire measures the variables to be measured using the Principle Components Factor Analysis. Kaiser Mayers Olkin (KMO) analysis shows a strong correlation and high validity of research variables. The highest value reached (0.916) with the determinants associated with the markets and the lowest value (0.878) with variable of administrative determinants. Common factor values shows contrast shared by each variable with the other variables included in the analysis, which ranged between (0.381 -0.669). The loading factor values ranged between {(0.675 -0.823) by an explained contrast (55.8 %) of the internal environment determinants, and (0.628 - 0.821) by an explained contrast (56.6 %) of the external environment determinants, and (0.705 -0.818) by an explained contrast (56.16 %) of the competitive advantages} and these are statistically acceptable values being greater than (0.40).

Study Population and Sample

The study population consisted of 568 individuals who deal with export activities in the Jordanian medicament companies whose stocks are listed on the Amman Financial Market. The sample size was determined by the following equation (Ali Mia et al, 2007)

$$n = \frac{N}{[(N-1)B^2]+1}$$

Where n is the sample size required, assuming that:

N = the size of the research population 568.

B = allowable error in estimating the size of the sample, including 5.5% of the sample size.

The following equation summarizes the process:

$$n = \frac{568}{[(568-1)(5.5)^2]+1} = 209 \text{ single}$$

209 questionnaires were distributed to the study sample, 198 questionnaires were received, 4 questionnaires were excluded because they were invalid, and so the response rate was (92.8) of the sample.

Third: Hypotheses Testing and Data Analysis

1) Testing the First Main Hypothesis (Effect)

The results in Table (4) indicate to the ability of whole export determinants (organizational, administrative, industry-related, and markets-related) in affecting the

competitive advantages with a determination factor (74.8 %); the ability of export determinants in explaining the price advantages and non-price advantages with determination coefficients (62.7 % - 76.2 %), and an average determination coefficient (53.6 % - 64.8 %). These results show that the export determinants affect non-price advantages more than their effect on the price advantages. This effect is significant at the level ($\alpha = 0.05$), because the value of Calculated F that is (14.82) is greater than its tabulated value of (2.89), thus the first hypothesis is accepted.

Table 4 Relative effects of the export determinants on competitive advantages

Competitive advantages	R ²	R ² Adjusted	F Calculated	F Tabulated	d.f
Price Advantages	62.7%	%53.6	7.43*	2.41	193.2
Non-price Advantages	76.2%	%64.8	15.43*	-	-
Rate of competitive advantages explained by export determinants	74.8%	%63.6	14.82**	2.89	192.1

Table (5) shows that all partial export determinants variables morally affect competitive advantages in terms of high values of calculated (t) as per their tabulated value of (1.645) at ($\alpha = 0.05$). Export determinants related to markets had more effect on the competitive advantages as the value of calculated (t) reached (16.87), with a standard error (0.149), while the export determinants related to organizational factors) had less effect on competitive advantages as the value of calculated (t) reached (8.53), with a standard error (0.193).

Table 5 Multiple regression analysis of the impact of variants of the export determinants on competitive advantages

Export determinants variants	B	Standard Error	t- Calculated	Significant level t	Test Result
Organizational determinants	1.194	0.193	8.53	0.005	sig
Administrative determinants	1.208	0.179	9.16	0.004	sig
Internal export determinants	1.386	0.171	12.16	0.000	sig
Industry determinants	1.260	0.182	9.76	0.001	sig
Market determinants	1.405	0.149	16.87	0.000	sig
Export determinants	1.489	0.146	17.98	0.000	sig

2) Testing the Second Main Hypothesis (Correlation)

It is clear from Table (6) that there are moral inverse relations having statistical significance between export determinants in the internal environment (and direct cost of

raw materials, quality, creativity - very strong correlation), (and direct labor cost, indirect production costs, flexibility, other costs, delivery – strong correlation). These correlations are supported by moral inverse correlations between export determinants variables in the internal environment and competitive advantages, where the highest correlation coefficient was (0.82) with the Creativity and the lowest correlation coefficient (0.67) with the Delivery. Partial correlation coefficients between the internal export determinants and competitive advantages showed contrast in the level of strength, in that they were (8.33% - very strong correlations), (77.08 – strong correlations) and (14.58 – middle correlations). Thus, the whole correlation between the internal export determinants and competitive advantages was inverse and very strong (0.88) and significant at the level ($\alpha = 0.01$). Based on this result, (H_{21}) is accepted.

Table (6) shows there are significant inverse correlations between export determinants in the external environment (and direct cost of raw materials, direct labor cost, indirect production costs, quality, flexibility, creativity - very strong correlation), (and other costs, delivery – strong correlation). These correlations are supported by significant inverse correlations between export determinants in the external environment and competitive advantages, where the highest correlation was (0.87) with the Quality and the lowest correlation coefficient (0.77) with the Other costs. Partial correlation coefficients between external export determinants and competitive advantages reflected differences in their level of strength, in that they were (15.63% - very strong correlation), (82.82% - strong correlation) and (1.57 – middle correlation). The whole correlation between external export determinants and competitive advantages showed inverse and very strong correlation (0.89) and was significant at the level ($\alpha = 0.01$). Based on these results, (H_{22}) is accepted.

Correlation coefficients in Table (6) indicate that there are significant inverse correlation relationships between the total export determinants and (cost of raw materials, direct labor costs, indirect production costs, quality, flexibility, creativity - very strong correlation), (other costs, delivery - strong correlation). These relationships confirm significant correlations between the export determinants in the internal and external environment and price and non- price competitive advantages; where the highest correlation coefficient was (0.88) between the export determinants in the external environment and non- price advantages, and the lowest correlation coefficient was (0.82) between the export determinants in the internal environment and price advantages. Partial correlation coefficients between the variables of export determinants and variables of competitive advantages showed obvious differences in terms of their strength, where: (12.5 % of them were very strong correlations), (80.36 % were strong correlations), and (7.14 % were

middle correlations). For that, the total correlation between the export determinants and competitive advantages was inverse and very strong (0.91) and significant at the level of significance ($\alpha = 0.01$). Therefore, (H₂) is accepted. All these results indicate that the export determinants in the internal and external environment is a function of the competitive advantages, and that the inverse relationships suggest that the growth of export determinants leads to lower level of competitive advantages.

Table 6 Correlation between export determinants and competitive advantages

Competitive advantages Export determinants	Price advantages				Total price advantages	Non-price advantages				Total non-price advantages	Total competitive advantages	Correlational strength
	Direct cost of raw materials	Direct labor cost	Indirect production costs	Other costs		Quality	Delivery	Flexibility	Creativity			
Company size	0.58	0.77	0.82	0.75	0.84	0.76	0.59	0.73	0.76	0.78	0.80	Very strong
Company resources	0.56	0.73	0.77	0.72	0.78	0.78	0.66	0.69	0.78	0.79	0.79	Strong
Company experience	0.79	0.74	0.79	0.76	0.81	0.84	0.64	0.77	0.71	0.85	0.82	Very strong
Organizational determinants	0.61	0.79	0.85	0.77	0.86	0.86	0.69	0.79	0.81	0.87	0.88	Very strong
Management aspirations	0.59	0.71	0.68	0.76	0.77	0.77	0.56	0.75	0.76	0.77	0.78	Strong
Management expectations	0.61	0.69	0.79	0.75	0.81	0.69	0.62	0.73	0.79	0.81	0.82	Very strong
Management desire	0.63	0.82	0.73	0.68	0.83	0.73	0.58	0.79	0.82	0.84	0.85	Very strong
Admin. determinants	0.65	0.84	0.80	0.77	0.85	0.79	0.64	0.82	0.85	0.86	0.87	Very strong
Export determinants	0.81	0.78	0.76	0.68	0.82	0.81	0.67	0.95	0.82	0.86	0.88	Very strong

ants in internal environment												
Industry type	0.76	0.80	0.68	0.59	0.81	0.74	0.67	0.69	0.76	0.78	0.79	Strong
Industry structure	0.68	0.77	0.73	0.64	0.78	0.78	0.72	0.73	0.80	0.81	0.79	Strong
Competition intensity	0.78	0.82	0.76	0.68	0.83	0.80	0.74	0.78	0.83	0.84	0.81	Very strong
Industry related determinants	0.79	0.83	0.77	0.69	0.84	0.81	0.76	0.79	0.84	0.85	0.86	Very strong
Market saturation	0.82	0.72	0.68	0.71	0.83	0.81	0.70	0.67	0.73	0.82	0.84	Very strong
Market need	0.79	0.78	0.73	0.69	0.80	0.79	0.69	0.65	0.71	0.80	0.81	Very strong
Market depth	0.88	0.79	0.69	0.73	0.81	0.80	0.73	0.68	0.75	0.81	0.82	Very strong
Market attractiveness	0.72	0.81	0.77	0.68	0.83	0.76	0.76	0.70	0.73	0.77	0.78	Strong
Cultural similarity	0.69	0.71	0.70	0.63	0.73	0.68	0.71	0.61	0.69	0.70	0.74	Strong
Markets related determinants	0.85	0.83	0.78	0.74	0.87	0.82	0.77	0.74	0.76	0.83	0.84	Very strong
Export determinants in external environment	0.86	0.84	0.81	0.77	0.87	0.87	0.78	0.83	0.86	0.88	0.89	Very strong
Total export determinants	0.87	0.85	0.82	0.77	0.88	0.88	0.79	0.81	0.87	0.89	0.91	Very strong
Correlational strength	Very strong	Very strong	Very strong	Strong	Very strong	Very strong	Strong	Very strong	Very strong	Very strong	Very strong	—

Correlation strength: 0.00 Nil / 0.00 to less than 0.2 Very weak / 0.2 to less than 0.4 Poor / 0.4 to less than 0.6 Average / 0.6 to less than 0.8 Strong/ 0.8 to less than 1 Very strong / 1 complete.

3) Analysis of Data

(First): Evaluation of Competitive Advantages in the Jordanian Medicament Companies

a) Analyze and Evaluate the Price Advantages

Price competitive advantages are associated with the ability to produce in costs lower than the average cost of the industry. This ability is reflected in the reduction of direct and indirect production costs, then the company achieves a higher profit rate than the average for the industry (Hill & Jones, 2013, p: 183). Table (7) indicates that (43%) of the respondents see that the surveyed companies enjoy competitive advantages in terms of lower overall production costs, and (39 %) of the respondents do not see the same. (56%) of the sample believes that companies are able to reduce the costs of other activities other than production activity such as packaging activities. Also (52% - 41%) of the sample think that the surveyed companies enjoy the advantage of lower cost of direct labor (due to low wages and improved labor productivity), and indirect production costs (due to economies of scale and utilization of productive capacities). It has also been clear that 62% of the respondents do not think that the surveyed companies enjoy advantages in terms of direct costs (due to the import of raw materials, their higher prices in the country of origin, and fluctuations in the exchange rate of the Jordanian dinar against foreign currencies). This is why some companies go to non-price competition.

Table 7 Competitive Advantages in Jordanian Medicament Companies

Level of availability	High		Unclear		Clear		Statistical indicators		Competitive advantage level	Rank of advantages as per their importance
	#	%	#	%	#	%	Arithmetic mean	Standard deviation		
Competitive advantage										
1. Direct cost of material	60	31	14	7	120	62	2.76	0.927	Poor	8
2. Direct labor cost	101	52	33	17	60	31	4.01	0.989	Clear	2
3. indirect production cost	80	41	27	14	87	45	3.13	0.935	Limited	6
4. Other costs	109	56	38	20	47	24	3.62	0.846	Limited	4
Price advantages	83	43	35	18	76	39	3.38	0.809	Limited	-
1. Quality	81	42	70	36	43	22	3.24	0.897	Limited	5
2. Delivery	87	54	55	28	52	27	4.16	0.964	Clear	1
3. Flexibility	111	57	23	12	60	31	3.86	0.955	Limited	3
4. Creativity	95	49	31	16	68	35	3.11	0.863	Limited	7
Non-price advantages	101	52	48	25	44	23	3.59	0.867	Limited	-
Total competitive advantages	-	-	-	-	-	-	3.49	0.801	Limited	-
scale	4 – more (clear)				3.99-3 (limited)				Less than 3 (Poor)	

b) Analysis and assessment of non-price advantages

Table (7) shows that the rate of agreement on variants of non-price advantages that depends on Quality, Delivery, Flexibility and Creativity ranged between (57% - 42%) against rates of disagreement on the same variants that ranged between (35% - 22%) with arithmetic means that ranged between (4.16 – 3.11). These results indicate that the surveyed companies have clear non-price advantages.

(Second): Analysis and Assessment of Export Determinants

Total arithmetic mean for export determinants in internal environment was (3.50) and standard deviation was (0.983) and this is a medium values.. The reason behind that is that the internal environment variables can be predicted and controlled. The partial internal environment variables reflected different arithmetic means the highest of which was (3.77) at Management Expectations, and the lowest was (3.25) at the Company Resources with a standard deviation (0.725) and (0.732), respectively. Percentages of agreement on the internal environment variables ranged between (56.7% - 71.1%) against rates of disagreement on the same variables that ranged between (12.4% - 29.9%) of the sample.

Export determinants	Importance of variants%					Importance indicator %	Arithmetic mean	Standard deviation	Rank as per importance
	Totally agree	Agree	Neutral	Disagree	Totally disagree				
	5	4	3	2	1				
1. Company size	27.8	29.9	18.6	14.4	9.3	73.4	3.67	1.023	8
2. Company resources	37.1	34	14.4	6.1	8.3	65	3.25	0.732	12
3. Company experience	38.1	31.9	17.5	7.2	5.2	74.2	3.71	0.692	7
Organizational determinants	-	-	-	-	-	70.9	3.54	0.825	2
1. Management aspirations	39.2	20.6	21.6	10.3	8.3	65.2	3.26	0.832	11
2. Management expectations	44.3	22.7	16.5	9.3	7.2	75.4	3.77	0.725	6
3. Management desire	3.81	18.6	13.4	15.5	14.4	66.2	3.31	1.251	10
Admin determinants	-	-	-	-	-	69	3.45	0.901	4
Export determinants in internal environment	-	-	-	-	-	70	3.50	0.983	-
1. Industry type	9.3	14.4	16.5	27.8	32	46.4	2.32	0.861	13
2. Industry structure	14.4	38.2	15.5	21.6	10.3	66.8	3.34	0.925	9
3. Competition Intensity	72.1	21.7	2.1	3.1	1.0	98.4	4.92	0.534	1

Industry related determinants	-	-	-	-	-	70.6	3.53	0.823	3
1. Market saturation	35.1	29.9	17.5	10.3	7.2	80.2	4.01	0.983	5
2. Market area	44.3	24.7	13.4	9.3	8.3	94.4	4.72	0.902	2
3. Market depth	37.1	28.9	19.6	8.3	6.2	80.6	4.03	1.013	4
4. Market attractiveness	40.2	21.6	9.3	19.6	9.3	92.4	4.62	0.781	3
5. Cultural similarity	5.2	8.3	4.1	17.5	64.9	40.2	2.01	0.802	14
Markets related determinants	-	-	-	-	-	77.6	3.88	0.951	1
Export determinants in external environment	-	-	-	-	-	74.2	3.71	0.782	-
Total export determinants	-	-	-	-	-	72.1	3.61	0.853	-
The relative importance of sample responses according to the following formula (category length = maximum - minimum / number of levels), and hence category length = (5-1) / 3 = 1.33, and thus the relative importance is as follows (from 1 to less than 2.33 is poor, from 2.33 to less than 3.66 is Middle, from 3 to more is High).									

Four: Conclusions & Recommendations

Conclusions

Data analysis and hypotheses testing proved the possibility of relying on export determinants as a function of the competitive advantages. The value of the regression model (R^2) indicates that (74.8%) of the competitive advantages is attributed to due to export determinants with the support of this value (F) calculated for the model (14.82), which refers to significant coefficient of determination (R^2) at the level of significance (0.01). It turned out that there are statistical relationships with significance between export determinants and competitive advantages with a total correlation coefficient (0.91 - very strong correlation), and partial correlation coefficients the highest of which was (0.88 - very strong correlation) with the Quality and the lowest of which was (0.77 - strong correlation) with Other costs. Agreement was high with a relative importance (72.1%) for export determinants, and this refers to the interest of respondents in the export determinants; the highest was for (Competition Intensity) by an agreement rate (%93.8) of the sample, and lowest agreement on (Cultural Similarity) with an agreement rate (%13.5) of the sample; whereas the agreement was middle with a relative importance (%69.8) for the competitive advantages, and the highest interest in (Delivery) was highest with an agreement rate (%54) of the sample, and with a lower agreement in (Direct Cost of Materials) by agreement (31 %) of the sample. Also, export determinants showed high trend and their variants took the following order from the viewpoint of the sample (Markets related determinants, organizational determinants, industry related determinants

and Admin determinants). Competitive advantages showed a middle level, and their variants took the following order from the viewpoint of the sample (Delivery, Direct labor cost, Flexibility, Other costs, Quality, Indirect production costs, Creativity, and Direct cost of materials). When looking for the reasons behind the lag of competitive advantages for the Jordanian medicament companies, it was clear that they face different constraints in the field of the field of their export activities including: **External Problems** represented by routine and bureaucracy in state organizations, rising cost of exports funding, fluctuated rate of exchange and poor government subsidies; **Internal Problems** represented by costs of exports funding, lack of human resources qualified in the field of export, lack of knowledge in the characteristics of export markets, difficulty of meeting the international specifications and standards related to products design, quality and packaging, bad efficiency of export sections, and poor R&D level; **Procedural Problems** related to transfer of products, delay in payment, and poor processing of export-related documents; and **Information Problems** related to customers in foreign countries, identification of competent distributors, inadequate information on export practices and procedures in foreign markets and the limited export marketing research.

Recommendations

In-depth studies are recommended to be conducted on the reasons for the growing export determinants, modesty of competitive advantages of the Jordanian medicament companies, taking drastic actions to address those causes, and providing necessary resources to do so, in addition to clearly identifying target competitive advantages (high quality, low costs, or excellence) as this has a positive impact on framing efforts and directing the activities and limited resources to achieve the goals set, and export determinants should be cared for as a major determinant of the competitive advantages, and the development of structures required to support competitive advantages.

References

- Ali, M. (2007). Strategic Management and its Impact on Raising the Performance of Business Organizations. *Tishreen University Journal for Studies and Scientific Research, Economic and Legal Sciences Series*, 39(1).
- Al Hayani, B., & Ilhan, H. (2020). Image transmission over decode and forward based cooperative wireless multimedia sensor networks for Rayleigh fading channels in medical Internet of Things (MIoT) for remote health-care and health communication monitoring. *Journal of Medical Imaging and Health Informatics*, 10(1), 160-168.
- Al-Hayani, B., & Ilhan, H. (2020). Efficient cooperative image transmission in one-way multi-hop sensor network. *The International Journal of Electrical Engineering & Education*, 57(4), 321-339.

- Alhayani, B., & Ilhan, H. (2017). Hyper spectral image classification using dimensionality reduction techniques. *International Journal of Innovative Research in Electrical, Electronics, Instrumentation and Control Engineering*, 5, 71-74.
- Alhayani, B., & Milind, R. (2014). Face recognition system by image processing. *International journal of electronics and communication engineering & technology (IJCIET)*, 5(5), 80–90.
- Alhayani, B.S. (2020). Visual sensor intelligent module based image transmission in industrial manufacturing for monitoring and manipulation problems. *Journal of Intelligent Manufacturing*, 4, 1-14.
- Teece, D.J. (2010). Business models, business strategy and innovation. *Long range planning*, 43(2-3), 172-194.
- Omerzel, D.G., & Gulev, R.E. (2011). Knowledge resources and competitive advantage. *Managing global transitions*, 9(4), 335.
- Fernandez, A.I., Lara, P.R., Ugalde, M.C., & Sisodia, G.S. (2018). Distinctive competencies and competency-based management in regulated sectors: A methodological proposal applied to the pharmaceutical retail sector in Spain. *Journal of Retailing and Consumer Services*, 42, 29-36.
- Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., & Tatham, R.L. (2009). *Multivariate Data Analysis*. 7th ed, Upper Saddle River. N.j: Pearson / Prentice Hall.
- Hill, W.L.C., & Jones, R.G. (2013). *Strategic Management an Integrated Approach*. Houghton Mifflin Pupliced, U.S.A.
- Takatoshi, I.T.O., Koibuchi, S., Sato, K., & Shimhzu, J. (2010). Determinants of Currency Invoicing in Japanese Exports: A firm-level analysis. *The Research Institute of Economy, Trade and Industry Discussion Paper*.
- Smith, T.M., & Reece, J.S. (1999). The relationship of strategy, fit, productivity, and business performance in a services setting. *Journal of Operations Management*, 17(2), 145-161.
- Bryson, J.M., Ackermann, F., & Eden, C. (2007). Putting the resource-based view of strategy and distinctive competencies to work in public organizations. *Public administration review*, 67(4), 702-717.
- Carneiro, J., Rocha, A.D., & Silva, J.F.D. (2011). Determinants of export performance: a study of large Brazilian manufacturing firms. *BAR-Brazilian Administration Review*, 8(2), 107-132.
- Villanueva, J., Yoo, S., & Hanssens, D.M. (2008). The impact of marketing-induced versus word-of-mouth customer acquisition on customer equity growth. *Journal of marketing Research*, 45(1), 48-59.
- Kraaijenbrink, J., Spender, J.C., & Groen, A.J. (2010). The resource-based view: a review and assessment of its critiques. *Journal of management*, 36(1), 349-372.
- Baroto, M.B., Abdullah, M.M.B., & Wan, H.L. (2012). Hybrid strategy: A new strategy for competitive advantage. *International Journal of Business and Management*, 7(20), 120-133.
- McFarland, K.R. (2008). *The Breakthrough company: How Everyday Companies Become Extraordinary performs*. Crown Business Publisher, U.S.A.

- Miller, J. (2003). *Game Theory AT work: How to use Game theory Out think and Outmaneuver your competence*. McGraw Hill publisher, U.S.A.
- Miuyun, W. (2010). *The Search for Sustainable Competitive Advantage: A Stakeholder Management Perspective*. Thesis of Doctor of Philosophy in Management at Massey University Albany, New Zaland.
- Akhtar, N., Khan, R.A., & Mujtaba, B.G. (2013). Exploring and measuring organizational learning capability and competitive advantage of petroleum industry firms. *International Business and Management*, 6(1), 89-103.
- Daneshvar, P., & Ramesh, H.N. (2010). Review of information technology effect on competitive advantage–strategic perspective. *International journal of engineering science and technology*, 2(11), 6248-6256.
- Rose, R.C., Abdullah, H., & Ismad, A.I. (2010). A Review on the Relationship between Organizational Resources, Competitive Advantage and Performance. *Journal of International Social Research*, 3(11), 488-498.
- Andreu, R., Baiget, J., & Canals, A. (2008). Firm-specific knowledge and competitive advantage: evidence and KM practices. *Knowledge and Process Management*, 15(2), 97-106.
- Rosane, G., David, G., & Dennis, G. (2003). Brazilian Exporters: Non-Financial Export Performance Measurements and Their Determinants. *Journal of International Business and Cultural Studies*, 2, 1-12.
- Sekaran, U. (2003). *Research Methods for Business*. John Wiley and Sons, U.S.A.
- Smit, A.J. (2010). The competitive advantage of nations: is Porter's Diamond Framework a new theory that explains the international competitiveness of countries?. *Southern African Business Review*, 14(1).
- Voigt, K.I., Buliga, O., & Michl, K. (2017). *Introduction*. In Business Model Pioneers. Springer, Cham.
- Whitney, D., & Coopriider, D. (2009). *Appreciative Inquiry: Appositive Revolution in Change*. Berrett – Koehler Publishers, U.S.A.