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# Practices of Competitor Accounting and its Influence on the Competitive Advantages: An Empirical Study in Jordanian Manufacturing Companies

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# Practices of Competitor Accounting and its Influence on the Competitive Advantages: An Empirical Study in Jordanian Manufacturing Companies

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**Abstract-** This study aims to investigate the usage of competitor accounting within the field of strategic management accounting (SMA) in the Jordanian manufacturing companies. It also aims to determine the extent to which competitor accounting influences competitive advantage of these companies. A survey on Jordanian manufacturing companies was conducted for data collection. A total of 88 questionnaires were distributed to these companies. Out of this number 62 were returned. The response rate was about 70.5%. Descriptive statistics showed that Jordanian manufacturing companies have good positions of competitive advantages compared to the competitors. One-sample t-test showed that all of competitors accounting techniques were used by Jordanian manufacturing companies. The results of multiple regressions showed that these techniques contribute significantly and explain a high percentage of variation in the competitive advantages of Jordanian manufacturing companies. Two of explanatory variables were competitive position monitoring, and competitor appraisal based on published financial statements have a statistically significant positive effect on all indicators of competitive advantages of Jordanian manufacturing companies which are financial performance, products, customers, general performance, and the overall indicators of competitive advantage. Competitor cost assessment has not a statistically significant positive effect on two of indicators of competitive advantages of Jordanian manufacturing companies which are products and customers. Despite all items of competitor accounting found having an influence on general competitive advantages of Jordanian manufacturing companies, this study suggested that these companies should pay more attention to competitor cost assessment to enhance their competitive advantages. In context of cost-benefit approach, this study also recommends Jordanian manufacturing companies to continue adopting all of SMA techniques in the future.

**Keywords:** *strategic management accounting, competitor accounting, competitive advantage.*

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## I. INTRODUCTION

Many important changes have been occurred in the business environment in the last half century such as rapidly advances in the markets, constant changes in customer preferences, and the intense global competition. These changes have placed industrial companies today under diverse types of pressure requiring them to increasingly improve their competitive priorities including cost reduction, quality, delivery and rapid response to customer demand, flexibility, productivity and innovation to produce new products (Alsoboa and Alduhiate, 2013). Competitive advantage is experienced by a firm when its actions in an industry or market create economic value and when few competing firms are engaging in similar actions (Barney, 2002). In order to gain and maintain competitive advantages, firms need to manage resources effectively and efficiently. This, in turn, requires all the use of all available information.

The notion of strategic management accounting is linked with business strategy and maintaining or increasing competitive advantage (CIMA, 2008). In modern organizations, knowledge management is the fundamental basis of competition (Baporikar, 2014; Aghamirian et al., 2015). Therefore, SMA may be considered part of the resources required to sustain a competitive advantage by providing information related to important aspects in the organization including planning, control, performance measurement, strategic decision making, strategic costing, customer accounting and competitor accounting.

The objective of a company's competitive advantage is to gain superior performance over the competitors. Knowledge and information are crucial matters to sustain this advantage. As a potential part of the internal capabilities of the firm, the competitor accounting, which is one of the major themes in SMA, could provide such an opportunity.

Jordan has made many trade contracts with countries with advanced economies especially USA and EU countries. Therefore, Jordan is one of most developing countries that influenced by economic global

changes. To survive in this competitive environment, Jordanian manufacturing companies should have a strong competitive position. This position has forced Jordanian companies to adopt the appropriate financial information systems including SMA.

This study contributes to current trends in SMA research in two ways. First, it explores the extent to which the competitor accounting within the area of SMA was used by the Jordanian manufacturing companies. Second, it aims to examine the influence of competitor accounting on the competitive advantage of these companies. To the best knowledge of researcher, this study is one of the few studies in this field.

## II. LITERATURE REVIEW

The role that SMA could play in the competitive environment has been discussed earlier at the beginning of nineties of the last century. The study conducted by Rick wood et al. (1990) considers management accounting's role in a company's response to the threat to its market position posed by a competitor's action. The study also illustrated a management accounting approach which adopts a strategic perspective. Okoye and Akenbor (2008) found that the SMA is superior to the traditional management accounting in the provision of information that meet environmental demand, particularly in the area of competition. Ndwiga (2011) outline the importance of management accounting practices in providing strategies that lead to the creation of a competitive advantage in an organization. Hesford (2008) revealed that monitoring the competitors' financial statement has a positive effect on return on investment, economic value-added, innovation, market share, service quality, efficiency and customer satisfaction. Akenbor and Okoye (2012) revealed that SMA enhances competitive advantage although several factors bedevil its adoption in Nigerian manufacturing firms.

Concerning the application of SMA techniques, competitor accounting has an important practices in this context. In inquiring about the incidence, use and perceived utility of strategic management accounting, Cravens and Guiding (2001) found that competitor accounting is regarded as the prevalent topic and the most heavily used method of SMA. Hesford (2001) suggested that accountants within the firm should extend their work beyond traditional, internally focused activities to contribute to the firm's competitive intelligence effort, providing assistance with competitor cost assessment and financial statement analysis. Nik Hassan et al. (2011) found that Malaysian manager did practice SMA in their organization focusing on the information pertaining to competitor's position, competitor's cost and competitor's financial condition but not competitor's appraisal. Alsoboa et al. (2015) found that 12 out of 19 SMA techniques were adopted

by JPIC including competitor cost assessment and competitor position monitoring. The study conducted by Chiekiezie et al. (2014) revealed that the mean financial performance of full adopters of competitor focused accounting (CFA) was greater than that of partial adopters and non-adopters. Chiekiezie et al. (2014) suggested that Manufacturing firms should give priority to SMA and its sub-divisions especially CFA to enhance its competitive edge over competitors.

Competitive advantage has been studied for a long time. It has also been linked to different aspects at the different organizations. Narasimhan and Schoenherr (2012) suggested supply management practices and environmental management practices as key strategic drivers aiding in the further differentiation of firms. Forsman (2013) demonstrated how the competitive advantage was enhanced along the successful environmental innovation process. Breznik and Lahovnik (2014) pointed out that firms with a stronger commitment to deploying dynamic capabilities are more successful and hold the potential for a sustained competitive advantage. Ashrafi and Mueller (2015) suggested that while tangible IT resources offer little competitive advantage, intangible IT resources are positively associated with IT capabilities that ultimately lead to IT competitive advantage and the improved financial performance of the organization. Woodruff (1997) argued that the next major source for competitive advantage likely will come from more outward orientation toward customers, as indicated by the many calls for organizations to compete on superior customer value delivery. Kumar et al. (2011) pointed out that the sustained advantage in business performance from having a market orientation is greater for the firms that are early to develop a market orientation. Qun and Sousa (2015) revealed that competitive advantage has an important mediating role in the relationship between marketing capabilities and export performance. In addition, prior studies have addressed many indicators which considered sources of achieving and sustaining competitive advantage such as organizational culture (Barney, 1986); knowledge (Buchnowska, 2011); customer knowledge (Aghamirian et al., 2015); organizational knowledge (Popovski & Nikolic, 2014); human capital (Coff, 1997); employee mobility constraints (Campbell et al., 2012).

## III. STRATEGIC MANAGEMENT ACCOUNTING

SMA has been defined as "the provision and analysis of financial information on the firm's product markets and competitors' costs and cost structures and the monitoring of the enterprise's strategies and those of its competitors in these markets over a number of periods" (Bromwich, 1990; 28). It has an important role to play in providing information about the major sources of competitive advantage of an enterprise. In

increasingly dynamic environment the provision of strategically relevant information is of paramount importance for the formulation and execution of business strategies (Dunković et al., 2009).

SMA is an externally oriented approach that entails the collection of data on costs, processes, sales volumes, market shares, cash flows and resource utilization for both a business and its competitors (Akenbor and Okoye, 2012). According to Roslender and Hart's (2003) definition of SMA, the new techniques often relate to external factors such as customers, markets and competitors, as well as to non-financial and internally generated information, and attempt to integrate insights from disciplines such as marketing management and management accounting within a strategic management framework. Based on the previous definitions of SMA, we can say the competitor accounting is an important aspect of this new discipline.

#### IV. COMPETITOR ACCOUNTING

According to Lord (1996), the SMA consists of three elements. The first one of these elements is the information on competitors which include competitor's price, costs and sales volume. Competitor accounting comprises the analysis of information from accounting relating to competitors. It is thereby supposed to gain detailed insight into their present cost and finance situation, to determine one's own competitive position and to predict the future strategic behavior of the competitors (Heinen and Hoffjan, 2005). The competitor's autonomous policies and reactions to market developments have a big influence on each organization's freedom of action and ultimately on its profitability. Hence, a sound knowledge of competitors and understanding their competitive position may ensure that an organization's existence and profitability are maintained in order to create a sustainable competitive advantage (BPP, 2005). On the basis of factor analysis of the application frequency of twelve instruments within strategic management accounting, Guilding et al. (2000) attributed the following three methods to competitor accounting:

##### a) *Competitor cost assessment*

Management accounting provides important and useful techniques in analyzing how the cost structure of competitors influences an organization's options and in modeling the impact of different strategies (BPP, 2005). Competitor cost assessment includes a regularly updated forecast of competitors' costs per item (Guilding, 1999). All easy accessible sources like direct observation, mutual suppliers, mutual customers, former employees and published accounting data should be used to analyze competitor's costs (Heinen and Hoffjan, 2005).

##### b) *Competitive position monitoring*

Competitor analysis is the identification and quantification of relative strengths and weaknesses (compared with competitors or potential competitors) which could be of significance in the development of a successful competitive strategy. Organizations should analyze their competitors and build models of how they might react based on their future goals, assumptions, capability and their current situation (BPP, 2005). Monitoring the competitive position entails extensive analysis of the competition which, beside market share, also includes turnover, return on sales, volume and cost per item, price per item and cash flow, capacity utilization, liquidity and availability of resources for essential competitors (Simmonds, 1986)

##### c) *Competitor appraisal based on published financial statements*

The competitor appraisal based on published financial statements is the numerical analysis of published financial information as a part of the assessment of sources of competitive advantages of competitors (Guilding, 1999). The organizations have to evaluate the degree of their success in implementation of their strategies based on the analysis of trends and ratios derived from financial statements, and the implications of this evaluation for customers, competitors and suppliers.

#### V. COMPETITIVE ADVANTAGE

A firm is said to have a competitive advantage when it enjoys greater success than current or potential competitors in its industry, suggesting that superior firm performance serves as a key indicator of competitive advantage (Ghemawat and Rivkin, 1999). Though there isn't one clear definition of competitive advantage, the creation of value is the milestone of any definition of the concept (Pilinkiene, et al., 2013). Competitive advantage is experienced by a firm when its actions in an industry or market create economic value and when few competing firms are engaging in similar actions (Barney, 2002). Different theoretical approaches addressed the value creation in competitive advantage, beginning with industrial structural analysis which developed in 1960's by Boston Consulting Group. This approach linked the growth of a market to the firm's relative market share focusing on the external environment of the corporation (Sorensen, 2006).

Another important approach developed by Porter (1980), where he suggested that competitive advantage may be regarded as the function of the industry attractiveness and company's competitive position in the market. In Porter's approach, five forces were identified, forming firm's competitive advantage: threat of new entrants, threat of substitutes, bargaining power of suppliers, bargaining power of buyers and competition between competitors. Later on, Porter

(1998) developed his approach to so called value chain model, dividing firm's operation into series of activities including designing, producing, marketing, delivering, and supporting product. According to this approach, Porter (1998) placed competitive advantage at the heart of a firm's performance in competitive markets, where he identified two types of competitive advantage; cost advantage and differentiation.

Resource based view approach is another important approach addressed the value creation. This approach emphasizes the firm's resources as the fundamental determinants of competitive advantage and performance. It focuses on the internal environment of the corporation, i.e. resources and capabilities. Barney (1991) derives sustained competitive advantage from the resources and capabilities that must have four attributes: valuable, rare, imperfectly imitable and not substitutable. Avella et al. (2001) consider that the emphasis on certain manufacturing competitive priorities or capabilities and decisions or practices on the key decision areas and their internal coherence can be the base for achieving sustainable or lasting advantage over competitors, thus producing superior business performance. However, it argued that competitive advantages cannot be sustained in dynamic, rapidly changing markets (Eisenhardt and Martin, 2000; Fiol, 2001).

## VI. METHODOLOGY

This study aims to explore the extent to which the competitor accounting within the area of SMA was used by the Jordanian manufacturing companies. It also aims to examine the influence of competitor accounting on the competitive advantage of these companies. A total of 88 questionnaires were distributed to company managers or financial managers in these companies.

Table 1 : Cronbach's alpha reliability coefficients for variables

Variables	dimensions	alpha
<b>The instrument</b>	<b>17</b>	<b>.89</b>
Competitor cost assessment.	5	.77
Competitive position monitoring.	6	.74
Competitor appraisal based on published financial statements.	6	.79
<b>Competitive advantage</b>	<b>20</b>	<b>.97</b>
Financial performance.	7	.95
Products.	6	.89
Customers.	3	.91
General performance.	4	.86

## VIII. COMPETITIVE ADVANTAGE FOR JORDANIAN MANUFACTURING COMPANIES

The respondents were requested to rate where they see their company is better than the competitor on twenty items listed in Table 2 by using the 5-point Likert score. Competitive advantages were analyzed as

Out of this number, 62 were returned and used. The response rate was about 70.5%, which is considered high. The questionnaire consisted of two main parts. The first part contained 17 items aimed at examining the extent of usage of competitor accounting techniques implemented by Jordanian manufacturing companies over the past five years. The Likert scale was used to measure the usage of variables, ranging from minimum of 1="not used at all" to the maximum of 5= "greatly used".

In the second part of questionnaire, competitive advantage was measured through manager's perceptions of the company's success in comparison to major competitors. Multi-items scale adopted from (Li, et al., 2006; Talaja, 2012; Anatan, 2014; and Schilke, 2014) was used to measure competitive advantage through four dimensions, namely, financial performance dimension, product dimension, customer dimension, and general performance dimension. The respondents were asked to rate the status they see their company is better than the competitors in these dimensions ranking from "much worse =1" to "much better =5".

The methods of analysis employed in the study were descriptive statistics, test of homogeneity of variance, the variance inflation factor test (VIF), one sample t-test, and multiple regressions. In addition, Cronbach's alpha test of internal consistency of competitor accounting techniques was used to test reliability of instrument and the variables related to it.

## VII. RELIABILITY OF THE STUDY INSTRUMENT

Cronbach's alpha was used to test stability of the measuring instrument. The values, as in Table 1, exceeded the level of 70%, which is an acceptable ratio (Hair et al., 2015).

financial performance (7 items), products (6 items), customers (3 items), and general performance (4 items), In general, good positions of competitive advantages were evidenced in all twenty items. At the level of financial performance, the top mean scores are (mean scores = 4.08) and (mean scores = 4.06) for both ROS and "overall superior financial performance" respectively.

Other financial performance items achieved very approximate scores; (ranking from mean scores 3.94-3.98). At the level of products, the top mean score is (mean scores = 4.08) for "the production cost of product", followed by (mean scores = 3.89) for "product quality and image" and (mean scores = 3.85) for "time to market". Price of product achieve mean (mean scores = 3.74), whereas the lowest mean score are (mean scores = 3.68) (mean scores = 3.66) for both "Delivery speed of product" and "Product innovation" respectively. Concerning the customers dimension, the top mean score is (mean scores = 4.02) for "customer satisfaction

with product", followed by (mean scores = 3.94) for "Customer loyalty" and (mean scores = 3.90) for "strong reputation for customer service". Regarding the general performance, the top mean score is (mean scores = 4.00) for "sustainability of acquired advantage", followed by (mean scores = 3.95) for "market share". Price of product achieve mean (mean scores = 3.74), whereas the lowest mean score are (mean scores = 3.68) (mean scores = 3.66) for both "Delivery speed of product" and "Product innovation" respectively. Overall successful achieved (mean scores = 3.87), whereas strategic advantages achieved (mean scores = 3.77).

*Table 2:* Descriptive statistics for competitive advantage indicators of Jordanian manufacturing companies comparing to the competitors

<i>Competitive advantage indicators</i>	Mean	SD
<b>Financial performance</b>	<b>4.00</b>	<b>1.04</b>
1- Return on Investment (ROI).	3.98	1.17
2- Improvement in earnings per share.	3.97	1.24
3- Return on assets (ROS).	4.08	1.19
4- General profitability of the firm.	3.97	1.21
5- Return on sales (profit/total sales).	3.97	1.14
6- Earnings before interest and taxes.	3.94	1.17
7- Overall superior financial performance.	4.06	1.28
<b>Products</b>	<b>3.79</b>	<b>.95</b>
8- The product quality and image.	3.89	1.13
9- Price of product.	3.74	1.20
10- The production cost of product.	3.94	1.11
11- Delivery speed of product.	3.68	1.32
12- Product innovation.	3.66	1.10
13- Time to market.	3.85	1.21
<b>Customers</b>	<b>3.95</b>	<b>1.05</b>
14- Customer satisfaction with product.	4.02	1.11
15- Customer loyalty.	3.94	1.11
16- A strong reputation for customer service.	3.90	1.21
<b>General performance</b>	<b>3.90</b>	<b>.98</b>
17- Strategic advantages.	3.77	1.22
18- Market share.	3.95	1.15
19- Sustainability of acquired advantage.	4.00	1.13
20- Overall successful.	3.87	1.14

Competitive advantages status: 1= much worse; 2= worse; 3 = Neither better nor worse; 4 = better; 5 = much better.

## IX. HYPOTHESES TESTING

One-sample t-test In this study was conducted for testing hypothesis *H01* to find out whether competitor accounting techniques were used by Jordanian manufacturing companies or not. Multiple regression analysis was conducted for testing hypotheses *H02- H06* to find out whether the competitor accounting techniques have an influence on the competitive advantage of these companies. The basic assumptions of regression tests for all five hypotheses have been met. For normality test, the scatter plot scheme showed that 95% of the errors (standardized residuals) fall within the range (2, -2), indicating that these errors are distributed normally (Anderson et al., 2008). Variance Inflation Factor (VIF) test was used to

test multicollinearity between independent variables. VIF for all variables were less than 10, which indicates no real problem in this study (Kohler, 2000).

*H01:* The competitor accounting techniques are not used by Jordanian manufacturing companies.

In Table 3, one-sample t-test show that all of competitor accounting techniques were used by Jordanian manufacturing companies; where the values for these variables were as follow: competitor cost assessment  $t(61)=8.01$ ,  $P<0.001$ ; competitive position monitoring  $t(61)= 7.45$ ,  $P<0.001$ ; and competitor appraisal based on published financial statements  $t(61)=10.44$ ,  $P<0.001$ . Taking together as a group all these techniques show that there is a significant usage of competitor accounting techniques,  $t(61)=9.77$ ,  $p<0.001$ . In addition, as it appears in Table 3, the

descriptive statistics support one-sample t-test results. The statistics show that using competitor accounting techniques achieved a mean score of more than the general mean in this study, which is moderately used (mean=3). Using of competitor appraisal based on published financial statements (mean score=3.91) achieved the highest mean score, followed by

competitor cost assessment (mean score=3.82), whereas competitive position monitoring technique achieved the lowest mean score (mean score=3.76). Overall, these results indicate that the usage of competitor accounting techniques was evident in all three variables.

Table 3 : Descriptive statistics and one-sample t-test for usage of competitor accounting techniques

Variables	Descriptive statistics		One-sample t-test	
	Mean	SD	t	Sig.
Competitor cost assessment.	3.82	.81	8.01	.000
Competitive position monitoring.	3.76	.80	7.45	.000
Competitor appraisal based on published financial statements.	3.91	.69	10.44	.000
<b>The group</b>	<b>3.83</b>	<b>.67</b>	<b>9.77</b>	<b>.000</b>

Extent of use competitor accounting techniques: 1=not used at all; 2=slightly used; 3=moderately used; 4=frequently used; 5=greatly used.

H02: The competitor accounting does not influence competitive advantages of financial performance of Jordanian manufacturing companies.

The results of regression analysis in Table 4 show that all of competitors accounting techniques contribute significantly (F (3, 58) =31.30; P<.001) and explain (R<sup>2</sup>= .62) of the variation in the competitive advantages of financial performance of Jordanian manufacturing companies. The results in Table 4 also

show that all three explanatory variables which are competitor cost assessment, competitive position monitoring, and competitor appraisal based on published financial statements have a statistically significant positive effect on competitive advantages of financial performance of Jordanian manufacturing companies, where P-value for these variables .024, .011, P=.018 respectively. Accordingly, the null hypothesis was rejected with regard to these variables.

Table 4 : Regression results for the influence of competitor accounting on competitive advantages of financial performance

Independent variables	Coefficients <sup>a</sup>			
	B	t	P	VIF
Competitor cost assessment.	.384	2.32	.024	2.50
Competitive position monitoring.	.517	2.62	.011	2.57
Competitor appraisal based on published financial statements.	.331	2.44	.018	1.67

R<sup>2</sup>= .62; F=31.30, P<.001  
a. Dependent variable: competitive advantage of financial performance

H03: The competitor accounting does not influence competitive advantages of products of Jordanian manufacturing companies.

In Table 5, the results of regression analysis show that all of competitors accounting techniques contribute significantly (F (3, 58) =18.58; P<.001) and explain (R<sup>2</sup>= .49) of the variation in the competitive advantages of products of Jordanian manufacturing companies. The regression results in Table 5 show that two explanatory variables which are competitive position monitoring, and competitor appraisal based on published financial statements have a statistically significant positive effect on competitive advantages of products of Jordanian manufacturing companies, where P-value for these two variables .024 and P=.012 respectively. Accordingly, the null hypothesis was

rejected with regard to these variables. The third explanatory variable, which is competitor cost assessment, does not has a statistically significant effect on competitive advantages of products of Jordanian manufacturing companies, where P-value for this variable (P=.376). Therefore, the null hypothesis was accepted with regard to this variable.

Table 5 : Regression results for the influence of competitor accounting on competitive advantages of products

Independent variables	Coefficients <sup>a</sup>			
	B	t	P	VIF
Competitor cost assessment	.155	.89	.376	2.50
Competitive position monitoring	.479	2.32	.024	2.57
Competitor appraisal based on published financial statements	.371	2.61	.012	1.67
<b>R<sup>2</sup>= .49; F=18.58, P&lt;.001</b>				
<i>a. Dependent variable: competitive advantage of products.</i>				

H04: The competitor accounting does not influence competitive advantages of customers of Jordanian manufacturing companies.

In Table 6, the results of regression analysis show that all of competitors accounting techniques contribute significantly (F (3, 58) =25.98; P<.001) and explain (R<sup>2</sup>= .57) of the variation in the competitive advantages of customers of Jordanian manufacturing companies. In Table 6, Regression analysis has shown the same results as in the H03 hypothesis. The variables competitive position monitoring and competitor appraisal based on published financial statements have

a statistically significant positive effect on competitive advantages of customers of Jordanian manufacturing companies, where P-value for these two variables .008 and P=.019 respectively. Consequently, the null hypothesis was rejected with regard to these variables. The third variable; competitor cost assessment, does not have a statistically significant effect on competitive advantages of customers of Jordanian manufacturing companies, where P-value for this variable (P=.117). Therefore, the null hypothesis was accepted with regard to this variable.

Table 6 : Regression results for the influence of competitor accounting on competitive advantages of customers

Independent variables	Coefficients <sup>a</sup>			
	B	t	P	VIF
Competitor cost assessment	.281	1.59	.117	2.50
Competitive position monitoring	.578	2.74	.008	2.57
Competitor appraisal based on published financial statements	.350	2.41	.019	1.67
<b>R<sup>2</sup>= .57; F=25.98, P&lt;.001</b>				
<i>a. Dependent variable: competitive advantage of customers.</i>				

H05: The competitor accounting does not influence competitive advantages of general performance of Jordanian manufacturing companies.

The results of regression analysis, in Table 7, show that all of competitors accounting techniques contribute significantly (F (3, 58) =32.28; P<.001) and explain (R<sup>2</sup>= .62) of the variation in the competitive advantages of general performance of Jordanian manufacturing companies. The results in Table 7 also show that all three explanatory variables which are

competitor cost assessment, competitive position monitoring, and competitor appraisal based on published financial statements have a statistically significant positive effect on competitive advantages of general performance of Jordanian manufacturing companies, where P-value for these variables .011, .020, P=.016 respectively. Accordingly, the null hypothesis was rejected with regard to these variables.

Table 7 : Regression results for the influence of competitor accounting on competitive advantages of general performance

Independent variables	Coefficients <sup>a</sup>			
	B	t	P	VIF
Competitor cost assessment	.401	2.61	.011	2.50
Competitive position monitoring	.440	2.40	.020	2.57
Competitor appraisal based on published financial statements	.315	2.49	.016	1.67
<b>R<sup>2</sup>= .62; F=32.28, P&lt;.001</b>				
<i>a. Dependent variable: competitive advantage of general performance.</i>				

H06: The competitor accounting does not influence overall competitive advantages of Jordanian manufacturing companies.

Taking all indicators of the competitive advantage of Jordanian manufacturing companies as

dependent variable, The results of regression analysis, in Table 8, show that all of competitors accounting techniques contribute significantly (F (3, 58) =35.01; P<.001) and explain (R<sup>2</sup>= .64) of the variation in the competitive advantages of Jordanian manufacturing

companies. The results in Table 8 also show that all three explanatory variables which are competitor cost assessment, competitive position monitoring, and competitor appraisal based on published financial statements have a statistically significant positive effect

on competitive advantages of general performance of Jordanian manufacturing companies, where P-value for these variables .040, .005, P=.006 respectively. Consequently, the null hypothesis was rejected with regard to these variables.

**Table 8 :** Regression results for the influence of competitor accounting on overall competitive advantages of Jordanian manufacturing companies

Independent variables	Coefficients <sup>a</sup>			
	B	t	P	VIF
Competitor cost assessment	.305	2.10	.040	2.50
Competitive position monitoring	.504	2.91	.005	2.57
Competitor appraisal based on published financial statements	.342	2.86	.006	1.67
<b>R<sup>2</sup>= .64; F=35.01, P&lt;.001</b>				
<i>a. Dependent variable: overall competitive advantages</i>				

## X. FINDINGS

Based on the descriptive statistics for competitive advantage indicators of Jordanian manufacturing companies presented in Table 2, it is clear that these companies have a good positions of the competitive advantages compared to their competitors. In this study, competitor accounting techniques represent the independent variables which are competitor cost assessment, competitive position monitoring, and competitor appraisal based on published financial statements. The results presented in Table 3 show that the usage of all these techniques by Jordanian manufacturing companies was evident. The overall descriptive results in Table 3 show that using of competitor appraisal based on published financial statements achieved the highest mean score, followed by competitor cost assessment, while competitive position monitoring achieved the lowest mean score. These findings are consistent with study by Cravens and Guiding (2001) found that competitor accounting is the most heavily used method of SMA, it also consistent partially with study by Nik Hassan et al. (2011), where they found that the competitors position and competitor's cost are practiced by Malaysian managers. Alsoboa et al. (2015) also found that competitor cost assessment and competitor position monitoring among other 19 SMA techniques are adopted by JPIC.

The results in Tables 4-8 have shown that competitor accounting techniques contribute significantly and explain high levels of variation in the indicators of competitive advantage of Jordanian manufacturing companies, whether it was financial performance, products, customers, general performance, or overall indicators of competitive advantage. Furthermore, all three explanatory variables which are competitor cost assessment, competitive position monitoring, and competitor appraisal based on published financial statements have a statistically significant positive effect on competitive advantages of

financial performance of Jordanian manufacturing companies. These results are consistent with study by Chiekezie et al. (2014) revealed that the mean financial performance of full adopters of CFA was greater than that of partial adopters and non-adopters.

Concerning the impact of competitor accounting techniques on the competitive advantages of products of Jordanian manufacturing companies, Table 5 has shown that two explanatory variables which are competitive position monitoring, and competitor appraisal based on published financial statements have a statistically significant positive effect on competitive advantages of products of Jordanian manufacturing companies, where competitor cost assessment, does not have a statistically significant effect on competitive advantages of products of Jordanian manufacturing companies. Reviewing literatures about the impact of competitor accounting techniques on the competitive advantages of products have shown no such studies.

With respect to the competitive advantages of customers of Jordanian manufacturing companies, Table 6 has shown to be similar to the impact of explanatory variables on competitive advantages of products, where competitive position monitoring, and competitor appraisal based on published financial statements have a statistically significant positive effect on competitive advantages of customers of Jordanian manufacturing companies. Competitor cost assessment has no statistically significant effect on competitive advantages of customers of Jordanian manufacturing companies. The study conducted by Woodruff (1997) maybe consistent with this result, where he argued that the next major source for competitive advantage likely will come from more outward orientation toward customers.

Regarding the competitive advantage of general performance, as in Table 7, all three explanatory variables which are competitor cost assessment, competitive position monitoring, and competitor appraisal based on published financial statements have

a statistically significant positive effect on competitive advantage of general performance Jordanian manufacturing companies. Kumar et al. (2011) referred that the sustained advantage in business performance from having a market orientation is greater for the firms that are early to develop a market orientation. This result is consistent with this study, since the general performance contains indicators such as strategic advantages, market share, and sustainability of acquired advantage

Finally, taken together all indicators of the competitive advantages of Jordanian manufacturing companies as dependent variable, the results presented in tables 8 reveal that all of explanatory variables have a statistically significant positive effect on competitive advantages of general performance of Jordanian manufacturing companies. Consistent with this result, Chiekezie et al. (2014) suggested that manufacturing firms should give priority to SMA and its sub-divisions especially CFA to enhance its competitive edge over competitors.

## XI. CONCLUSION

This study aimed to explore the extent to which the competitor accounting within the area of SMA was used by the Jordanian manufacturing companies. It also aimed at examining the influence of competitor accounting on the competitive advantage of these companies. The study revealed that the Jordanian manufacturing companies have good positions of competitive advantages compared to the competitors. It is also found that competitor accounting techniques were used by the Jordanian manufacturing companies. The results also reveal that competitor accounting techniques contribute significantly and explain a high percentage of variation of competitive advantages of Jordanian manufacturing companies.

The findings show that two of explanatory variables which are competitive position monitoring, and competitor appraisal based on published financial statements have a statistically significant positive effect on all indicators of competitive advantages of the Jordanian manufacturing companies, whether it was financial performance, products, customers, general performance, or the combination of all these four variables. It also found that the third explanatory variable, which is competitor cost assessment, does not have a statistically significant effect on competitive advantages of product and customers in Jordanian manufacturing companies.

However, some prior studies revealed that competitor accounting techniques have positive effect on competitive advantages, but no one study found the relationship between competitor accounting techniques as group and competitive advantages. This was regardless of whether it was competitive advantage of

financial performance, products, customers, general performance or overall competitive advantages. Despite that all items of competitor accounting found having an influence on general competitive advantages of Jordanian manufacturing companies, this study suggested that these companies should pay more attention to competitor cost assessment to enhance their competitive advantages. In context of cost-benefit approach, this study also recommends Jordanian manufacturing companies to continue adopting all of strategic management accounting techniques in the future.

## REFERENCES RÉFÉRENCES REFERENCIAS

1. Aghamirian, B., Dorri, B., & Aghamirian, B., (2015). Customer Knowledge Management Application in Gaining Organization's Competitive Advantage in Electronic Commerce. *Journal of Theoretical and Applied Electronic Commerce Research*, 10(1), 63-78.
2. Akenbor, C. O. & Okoye, E. I. (2012). The Adoption of Strategic Management Accounting in Nigerian Manufacturing Firms. *An International Journal of Arts and Humanities*, 1(3), 270-287
3. Alsoboa, S. S. & Aldehayyat, J. S. (2013). The impact of competitive business strategies on managerial accounting techniques: A study of Jordanian public industrial companies. *International Journal of management*, 30(2), 545-555.
4. Alsoboa, S. S., Al Khattab, A. & Al-Rawad, M. (2015). The extent to which the Jordanian Private Industrial Companies use SMA techniques. *European Journal of Business and Management*, 7(7), 456-465.
5. Anatan, L. (2014). Factors influencing supply chain competitive advantage and performance. *International Journal of Business and Information*, 9(3), 311-334.
6. Anderson, D.R., Sweeney, D. J., & Williams, T.A. (2008). *Statistics for business and economics*, 10th edition, Thomson South-Western, USA.
7. Ashrafi, R. & Mueller, J. (2015). Delineating IT Resources and Capabilities to Obtain Competitive Advantage and Improve Firm Performance. *Information Systems Management*, 32(1), 15-38.
8. Avella, L., Fernandez, E., & Vazquez, C.J., 2001. Analysis of manufacturing strategy as an explanatory factor of competitiveness in the large Spanish industrial firm. *International Journal of Production Economics*, 72 (2), 39-157.
9. Baporikar, N. (2014). Organizational parries and facilities embedding knowledge strategy, 150-173. In Michael A Chilton and James M Bloodgood, "Knowledge Management and Competitive Advantage: Issues and Potential Solutions", IGI Global, USA.

10. Barney, J. B. (1986). Organizational Culture: Can It Be a Source of Sustained Competitive Advantage? *The Academy of Management Review*, 11(3), 656-665.
11. Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17, 99-120.
12. Barney, J. B. (2002). *Gaining and Sustaining Competitive Advantage*, 2nd ed, NJ: Prentice-Hall.
13. BPP Professional Education, 2005, *CIMA Management Accounting: Business Strategy*, London: BPP Publishers.
14. Breznik, L. & Lahovnik, M. (2014). Renewing the resource base in line with the dynamic capabilities view: a key to sustained competitive advantage in the IT industry. *JEEMS*, 19(4), 453-485.
15. Bromwich, M. (1990). The case for strategic management accounting: the role of accounting information for strategy in competitive markets. *Accounting, Organizations and Society*, 15(1), 27-46.
16. Buchnowska, D. (2011). Customer knowledge management models: Assessment and proposal, research in systems analysis and design: Models and methods, *Lecture Notes in Business Information Processing*, 93(1), 25-38.
17. Campbell, B. A., Coff, R., & Kryscynski, D. (2012). Rethinking sustained competitive advantage from human capital. *Academy of Management Review*, 37(3), 376-395.
18. Chiekezie, N. R., Egbunike, P. A. & Odum, A. N. (2014). Adoption of competitor focused accounting methods in selected manufacturing companies in Nigeria. *Asian Journal of Economic Modelling*, 2(3): 128-140.
19. CIMA; The Chartered Institute of Management Accountants. (2008). *management accounting risk and control strategy*, P3, Post Exam Guide November 2008.
20. Coff, R. W. 1997. Human assets and management dilemmas: Coping with hazards on the road to resource-based theory. *Academy of Management Review*, 22: 374-402.
21. Cravens, K.S. & Guilding, C. (2001). An Empirical Study of the Application of Strategic Management Accounting Techniques. *Advances in Management Accounting*, 10, 95-124.
22. Dunković, D., Jurić, D. & Nikolić, T. (2009). Marketing aspects in strategic management accounting. *Interdisciplinary management research*, IV, Faculty of Economics Osijek & Hochschule Pforzheim University, STR, 739-750.
23. Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: What are they? *Strategic Management Journal*, 21(10-11), 1105-1121.
24. Fiol, M. (2001). Revisiting an identity-based view of sustainable competitive advantage. *Journal of Management*, 6, 691-699.
25. Forsman, H. (2013). Environmental innovations as a source of competitive advantage or vice versa? *Business Strategy and the Environment*. 22(5), 306-320.
26. Ghemawat P. E. & Rivkin J. W. (1999). Creating competitive advantage. In *Strategy and the Business Landscape: Text and Cases*, Ghemawat P. with Collis D, Pisano G, Rivkin (ed.). Addison-Wesley: Reading, MA; 49-74.
27. Guilding, C. (1999). Competitor-focused accounting: an exploratory note. *Accounting, Organization and Society*, 24(7), 583-595.
28. Guilding, C., Cravens, K. S. & Tayles, M. (2000). An International Comparison of Strategic Management Accounting Practices. *Management Accounting Research*, 11(1), 113-135.
29. Hair, J., Wolfinbarger, M., Money, A., Samuel; P., & Page, M. (2015), *Essential of Business Research Methods*, 3rd ed., New York Routledge, USA.
30. Heinen, C. & Hoffjan, A. (2005). The Strategic Relevance of Competitor Cost Assessment – an Empirical Study of Competitor Accounting. *JAMAR*, 3(1), 17-34.
31. Hesford, J.W. (2001), An Empirical Investigation of Accounting Information Use in Competitive Intelligence, *Proceedings, American Accounting Association, Annual Meeting, Atlanta*.
32. Hesford, J.W., (2008). An empirical investigation of accounting information use in competitive intelligence. *Journal of Competitive Intelligence and Management*, 4(3), 17-49.
33. Kohler, H. (2000). *Statistics for business and economics*, Thomson learning, Inc., USA.
34. Kumar, V., Jones, E., Venkatesan, R., & Leone, R.P. (2011). Is market orientation a source of sustainable competitive advantage or simply the cost of competing? *Journal of Marketing*, Vol. 75 (January 2011), 16-30.
35. Li, S., Nathan, B. R. Nathan; T. S. & Rao, S. S. (2006). The impact of supply chain management practices on competitive advantage and organizational performance, *Omega* 34: 107-124.
36. Lord, B.R. (1996). Strategic management accounting: the emperor's new clothes? *Management Accounting Research*, 7 (3), 347-366.
37. Narasimhan, R. & Schoenherr, T. (2012). The effects of integrated supply management practices and environmental management practices on relative competitive quality advantage. *International Journal of Production Research*, 50(4), 1185-1201.
38. Ndwiga, N.M. (2011). The role of management accounting in creating and sustaining competitive advantage. a case study of equity bank, Kenya.

- Master of commerce, University of South Africa, June 2011.
39. Nik Hassan, N-H., Nik Muhammad, N-M. & Ismail, Z. (2011). Strategic management accounting practice in malaysia: case of manufacturing sector, *Journal of Finance, Accounting and Management*, 2(2), 23-38.
  40. Okoye, E. I. & Akenbor, C. O. (2008). Strategic management accounting practices in a competitive environment: a theoretical exposition. *ABSU journal of management science*, 4(2), 1-18.
  41. Pilinkiene, V., Kurschus, R-J., & Auskalnyte, G. (2013). E-business as a source of competitive advantage. *Economics and Management*, 18(1), 77-85.
  42. Popovski, V. & Nikolic, S. (2014). The significance of the organizational knowledge for acquiring competitive advantage on the telecommunication market in the republic of Macedonia. *Economic Development No.1-2/2014*, 31-47.
  43. Porter, E. M., 1980. *Competitive Strategy: Techniques for Analyzing Industries and Competitors*, New York, Free Press.
  44. Porter, E. M. (1998). *Competitive advantage: Creating and sustaining superior performance*, New York, Free Press.
  45. Qun, T. & Sousa, C. M. P. (2015). Leveraging marketing capabilities into competitive advantage and export performance. *International Marketing review*, 32(1). 78-102.
  46. Roslender, R. & Hart, S., 2003, In search of strategic management accounting: theoretical and field study perspectives, *Management Accounting Research* 14, 255-279.
  47. Rickwood, C.P., Coates, J.B., & Stacey, R.J. (1990). Stapylton: strategic management accounting to gain competitive advantage. *Management Accounting Research*, 1(1), 37-49.
  48. Schilke, O. (2014). On the contingent value of dynamic capabilities for competitive advantage: the nonlinear moderating effect of environmental dynamism. *Strategic Management Journal*, 35, 179-203.
  49. Simmonds, K. (1986). The accounting assessment of competitive position. *European Journal of Marketing*, 20(1), 16-31.
  50. Sorensen, D. (2006). *The automotive development process, a real options analysis*. DUV, Gabler edition wissenschaft, Frankfurt,
  51. Talaja, A. (2012). Testing VRIN framework: resource value and rareness as sources of competitive advantage and above average performance. *Management*, 17(2), 51-64.
  52. Woodruff, R. B. (1997). Customer value: The next source for competitive advantage, *Journal of the Academy of Marketing Science*, 25(2), 139-153.