

# Balanced Scorecard and Competitive Strategies of Small and Medium Manufacturing Organizations

ABDEL-AZIZ AHMAD SHARABATI<sup>1\*</sup>, ASSAD ADNAN GHAITH<sup>1</sup>, AMER MORSHED<sup>1</sup>,  
HESHAM ABUSAIIMEH<sup>2</sup>, SHAFIQ AL-HADDAD<sup>3</sup>

<sup>1</sup>Business Faculty, Middle East University,  
Amman,  
JORDAN

<sup>2</sup>Faculty of Information Technology, Middle East University,  
Amman,  
JORDAN

<sup>3</sup>King Talal School of Business Technology, Princess Sumaya University for Technology,  
Amman,  
JORDAN

*\*Corresponding Author*

*Abstract:* - The competition between Jordanian Small and Medium Manufacturing Enterprises (SMMEs) and imported products from foreign countries especially from China is increasing, so Jordanian SMMEs have to use different strategic tools to be able to compete with imported products. Therefore, this research purpose is to explore the effect of using a Balanced Scorecard (BSC) as a strategic tool on Jordanian SMMEs' competitive strategies. The study uses a quantitative descriptive and cause-effect approach, and it is cross-sectional research. Exactly 120 managers and owners from 100 SMMEs completed a questionnaire. Then questionnaires were checked and coded against SPSS. The results show that implementing the BSC affects the competitive strategies of Jordanian manufacturing SMMEs, where the BSC has assigned the greatest weight to the focus strategy, the cost leadership strategy, and finally the differentiation strategy. Moreover, the customer perspective has the highest impact on competitive strategies, then the financial perspective, followed by the learning and growth perspective, and finally the internal processes perspective. This article illustrates how using a BSC is essential to measure and manage organizational performance via analyzing weaknesses and strengths, which helps to achieve competitive strategies. Therefore, owners and managers should use BSC as a strategic tool before setting strategic goals and objectives to achieve a competitive strategy. Finally, this research will help managers and owners of SMEs to improve their competitive position compared to foreign companies.

*Key-Words:* - Balanced Scorecard; Competitive Strategy; Small and Medium-Sized Manufacturing Enterprises; Amman; Jordan.

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## 1 Introduction

Jordan's Small and Medium Manufacturing Enterprises (SMMEs) are suffering from high competition with imported products, especially issues related to quality and price, [1]. According to the statements of many executives and owners of SMMEs, China is the biggest danger since Jordanian merchants may purchase products from China at reduced costs and approved quality versus local goods, which generates strong rivalry, [2]. According to the Oxford Business Group (2017), about 91% of Jordan's businesses are categorized as

small or medium-sized (SMEs), and more than 70% of those are struggling in some way, [3]. The directors and owners of industrial companies have identified a wide range of difficulties, including declining sales, a quality-to-price ratio that is too low, a lack of agility in meeting the demands of the market, as well as an unknown sales outlook. Several academics and practitioners have stressed the importance of having a clear strategic plan and the ability to transform that strategy into actionable practices with a reliable measuring tool for firms to face such difficulties. This might be accomplished

through the utilization of a wide range of techniques, including the Balanced Scorecard (BSC) and many other tools. The BSC is useful for analyzing both the micro and macro environments, coming to appropriate decisions, taking on new obstacles, successfully competing in the current marketplace, and ultimately improving the company's competitive position, [4]. Finally, every organization has to develop its strategy to be able to cope with the fast-changing market environment, because no single strategy can fit all organizations, [5].

In 1996 Norton and Kaplan developed the balanced scorecard and stated it depends on four elements to align short-term processes with long-term goals: Translate the vision (develop measurements and metrics), communicate and link (disseminate and link to individual performance and compensation), business planning (planning, budgeting, creating discipline, define drivers for intended outcomes), and feedback and learning (cause-effect analysis) [6]. BSC is divided into perspectives as follows the financial, customer, internal business processes, and learning and growth, [6], [7]. In 1997, Grembergen and Timmerman adapted BSC to IT and called it as IT Balanced Scorecard (IT BSC), [8]. BSC is a tool used to develop, implement, and measure organizations' strategies' performance and success, [9]. To enhance organizational efficiency, the BSC has to be used as a strategic tool. It directs managers to identify the most effective resources for using different competitive strategies and applying the best investment, [10]. BSC is used as a performance measurement tool to help in developing plans, management, and performance evaluation. It is a tool used to transfer strategic goals into performance measures, [11]. As for strategic performance measurement, a BSC is used as a framework. This scorecard transfers the company's goals and objectives into suitable performance indicators, [12]. The BSC ideas and tools are contributing to the overall organizational success, [13]. The BSC helps organizations match their goals and objectives with daily activities, [14]. As a tool of strategic control, the BSC is crucial to the organization's continuity and prosperity, [15]. The BSC can be used as a competitive tool to measure performance for internal factors, [16]. The concept of BSC directs organizations to understand their competitive position and directs them to use the most important success measures. Both intangible and intangible assets are very important to increase organizations' competitiveness and market value, [17]. The BSC is a tool that is used to convert an organizational

mission and strategy into quantifiable measures for activities and tangible goals, [18]. The BSC is a tool to manage and evaluate strategic performance to reach competitive advantages to align with the increasing market dynamics and competitive environment to preserve the organization's competitiveness, [19]. Organizational performance can be evaluated and a competitive edge established with the help of the BSC, [20]. The BSC measures the ability of organizations to convert the organization's mission and strategies into reality, [21]. The perspectives of BSC are utilized to develop a strategic map for using resources. It is also used for organizations' infrastructure and resources analysis and to measure their competitive advantage., so it is a tool used to develop strategic management processes, [22]. The BSC helps top management maximize organizational performance by implementing strategic plans and goals successfully, [23]. A BSC is a crucial tool to achieve a competitive advantage and enhance performance, [24]. Both creativity and innovation are key for financial and physical assets to create competitive advantages, [25]. Focusing on organization's resources and their potential, BSC can be used as strategic management tool that direct organizations performance to gain a market advantage, [26]. BSC is utilized for managing, designing, continuous planning, maintaining, and evaluating projects, [27]. A BSC is a method used for measuring the business competition and attaining business competitive advantage, [28]. A BSC approach is used to evaluate climate change which is critical for business and organizational competitiveness, [29]. A BSC is an important tool to improve performance and create a competitive advantage, [30]. BSC is a tool to analyze strengths and weaknesses and to manage costs to be able to survive, It is required to establish and preserve a competitive edge, [31].

As mentioned above, it seems that there is a consensus among all academicians and practitioners on the benefits of BSC for all organizations including SMMEs designed for strategic usage in managing and assessing organizational performance and developing competitive advantages that inform strategic decision-making. Therefore, the purpose of this research is to discover whether or if small and medium-sized (SME) firms in Jordan may benefit from using a BSC to increase their productivity and competitiveness. This research shows how the viewpoints and techniques the BSC employs to compete may be applied in the real world, helping to close the disconnect between theory and reality.

Therefore, the following are the primary concerns that this investigation attempts to address:

Q1: Does implementing the BSC affect competitive strategies (differentiation strategy, cost leadership strategy, and focus strategy) of the Jordanian small and medium manufacturing enterprises?

Q2: Does implementing the BSC perspectives (financial, customer, internal business processes, and learning and growth) affect the Jordanian small and medium manufacturing enterprises' competitive strategies?

The answers to these questions will help SMME managers and owners define the best competitive strategy and the best BSC perspective to be used to achieve the intended objectives.

## 2 Problem Formulation

### 2.1 Balanced Scorecards (Independent Variable)

The (BSC) is a useful strategic planning tool for all institutions; it incorporates the institution's goal, objective, and strategic plan into four categories of performance indicators (both quantitative and qualitative), [32]. A company's strategy can be turned into a consistent set of performance indicators using (BSC), a comprehensive framework. This is because it successfully conveys the plan's implementation while also taking into account financial and non-financial issues within and beyond the scope of management, [33]. Focusing on the information needs of planning and management, a good BSC also characterizes the basic managerial information, and it should also boost the organization's adaptability to changes or shifting models of managerial decisions by helping managers better understand the external and internal environments in which their business operates, [34]. Short-term and long-term financial goals are both considered within a BSC's framework for measuring performance, [35]. The four BSC perspectives are used to evaluate a business's performance, [36]. BSC includes four perspectives: financial, customer, internal processes, and learning and growth as follows:

**Financial Perspective:** The financial perspective is the material results that an organization should be achieved, [37]. The financial perspective is how the organizations presented to shareholders; financial statements, balance sheets, and current ratios can do it, [38]. There are many ways to evaluate a company's financial performance, such as return on capital, contribution margin, and income, and firms

need to understand where their money is most effectively utilized. However, it is unwise to focus solely on monetary indicators and ignore everything else, [39].

**Customer Perspective:** An approach taken from the customer's point of view prioritizes the needs and expectations of the customer while developing performance measurements to ensure that production facilities are neither exceeding nor falling short of the mark, [40]. Indicators of customer satisfaction and market share can only be achieved once manufacturers have developed meaningful connections with their ideal clients, [41]. There are several approaches, like secret shopper programs and customer satisfaction surveys, to gauge the level of customer service. To achieve a plan or develop a strategy that works for the target customers, understanding customers is helpful, [42].

**Internal Business Processes Perspective:** Focusing on areas of expertise, decisions, and processes that will provide significance to both external and internal customers is the way to customer satisfaction, which is reflected by an internal perspective that informs managers of how these strengths or internal processes are developed to achieve the organization's objectives, [43]. Internal business procedures by learning the most important tasks that contribute to the success of the company, [44]. Internal processes answer the question of what the firm must succeed at, such as time, cost, or perhaps even new products, by focusing on the underlying abilities, decisions, and activities that have the greatest impact on customer satisfaction, [45]. Definition of internal business processes as those that add value for shareholders and customers, [46].

**Learning and Growth Perspective:** Focusing on employee happiness, training, and development, the learning and growth perspective considers how factories can respond to changes in the external environment, such as the introduction of new products or new markets.

The organizational transformation that fosters growth and innovation can be facilitated by adhering to the principles outlined by the learning and growth perspective, [41]. One way in which collaboration can help people adapt to and thrive in their environments over time is through the lens of learning and growth, [38]. Those working for the company should be given the tools and resources they need to think creatively. Due to the interconnected nature of innovation and internal processes, it is essential to cultivate and learn to ensure the success of mission-critical operations.

Given the rapid pace of change, the ability to adopt a growth mindset through training is essential, [47].

## 2.2 Competitive Strategy (Dependent Variable)

**Competitive Advantages and Strategy:** Gaining and maintaining a competitive advantage requires an organization to adapt to shifting external and internal conditions to capitalize on possibilities, [15]. Products and services can be differentiated by being superior to those offered by competitors, with further differentiation possible through novel approaches, [48]. When a company has limited resources, it may adopt a focus strategy in which the market is segmented into a select few target markets rather than the entire market, [49]. To achieve cost leadership, you must be able to produce your goods or services for a more affordable price than the competition, [50]. When it comes to organizational success and peak performance, the competitive edge is tied to both internal and external influences, [26]. Cost leadership, differentiation, and a laser-like focus on one area of the market are all components of this long-term approach, [51].

**Differentiation Strategy:** As a business, you can gain an edge over the competition by differentiating your goods from those of other companies. To do this, focus on changing the one feature that matters most to the majority of customers while keeping the remaining features and their associated prices constant, [52]. Differentiation, in the form of specialty, is essential for new businesses to gain a marketable advantage, [53]. When a company differentiates itself, it offers customers something that other offerings do not. Making products or services more appealing than the competition is crucial. Research and development (R&D) and innovation-based design are two areas where businesses must devote significant time and money. Consumers invest in sorts when they are prepared to pay more for a different product because they recognize its significant importance, [50].

**Cost Leadership Strategy:** A protracted strategy necessitates the company becoming capable of gaining a competitive edge over its rivals. By having the lowest prices, standing out, or focusing. This gives the company an edge over its competitors, [54]. How can you compete with reduced costs than your competitors but still make money? You can do this by lowering your operation costs or making your employees more productive, [55]. To achieve cost leadership, one must provide consumers with higher quality at cheaper prices than competitors, [56].

**Focus Strategy:** Differentiation strategy, low-cost strategy, or a combination of the two; market segmentation, regional targeting, and business-to-customer focus; these are all examples of focus strategies, [57]. Organizations with fewer resources can still compete successfully by narrowing their focus to a certain market niche rather than the entire market as a whole, [58].

## 2.3 Previous Studies

Previous research on the connection between BSC and Competitive strategies is briefly discussed here. These researches have been arranged in chronological order, beginning with the most recent ones:

The four BSC business dimensions are innovation and learning, internal business process, customer, and financial perspectives, [10]. The four perspectives of BSC (financial, internal business process, learning and growth, and customer) have to be measured and aligned with corporate social responsibility to create competitive advantage, [12]. A BSC system measures performance through a customer-focused strategy that concentrates on using assets and internal processes strategy to adapt to market changes and create a competitive advantage, [11]. The application of the BSC facilitates the use of a quality management system for quality management and business excellence to achieve a competitive advantage and improve business performance, [13]. BSC improves profitability and financial performance, [14]. Several organizations use the BSC to implement their strategies which is a valuable system for satisfying customers' needs as well as shareholders' requirements, [40]. BSC is used to evaluate the environmental changes that accelerate creativity and innovation. Updating knowledge improves performance through learning. Environmental changes lead to internal structure changes. Organizations use the BSC to measure transformation processes, [15].

Top marks went to internal business processes, next to customer perspective, then to financial perspective, and finally to learning and growth, [43]. Higher use of BSC in market competition improves business performance, [16]. Healthcare organizations use the four BSC perspectives (Customer, Financial, Innovation, Learning Growth, and Internal Business Perspectives) to evaluate performance, which affects the organization's competitiveness. The price, quality, and image of healthcare services affect the competitiveness of healthcare organizations in the local and global markets Financial Perspective creates value for the

shareholder. The customer Relationship Perspective defines the customer and market strategies. Internal business perspective determines the best processes to satisfy customers and shareholders. The innovation and learning growth perspective is related to implementing objectives and measures of learning and growth. These are the most important factors to maintain a competitive position and increase the organization's market value, [17]. BSC helps to apply a quality management system and focus on long-term financial efficiency which impacts organizations' competitiveness, [59]. The BSC is significantly and positively correlated with cost, quality, and flexibility, [19]. The IT BSC consists of four new perspectives: corporate contribution, customer (user) orientation, operational excellence, and future orientation, [18]. A large number of Jordanian pharmaceutical manufacturers use the BSC factors, and there is a robust correlation between the BSC factors and the financial success of these companies, [60]. Activity-based Costing (ABC) and the BSC both are used to measure performance and cost management, which improve organizations performance of manufacturing organizations. The ABC helps managers to make suitable decisions regarding profitability, while BSC facilitates its implementation to improve organizations' performance, [61]. To strengthen the company's standing in the market and its financial prospects, BSC can be used as a useful tool. Applying the BSC impacts the organization's performance and sustainable competitiveness, [20]. All of the BSC's perspectives work together to boost quality and gratify the needs of all stakeholders, both internal and external, [44]. BSC is viewed as a performance measurement system, which leads to success better competitive position, [62]. All of the BSC's perspectives work together to boost quality and gratify the needs of all stakeholders, both internal and exterior, [49].

BSC factors (financial, customer, internal processes, learning, and growth, Social and environmental) affect marketing competitive strategies (differentiation, focus, and price leadership), which in turn affect marketing competitive strategy. Financial factors rated the highest priority and the differentiation strategy scored the highest marketing competitive strategy, [63]. BSC improves competitive priorities (value, delivery, flexibility, and innovation), which influence organizations' performance, [21]. Total quality management and the four BSC perspectives are interrelated in a way that helps businesses succeed, [41]. Successful implementation of a

corporate strategy requires the use of a BSC, which is a measuring performance system that necessitates the buy-in of managers and employees at all levels, [64]. For cooperatives, a BSC can serve as a mechanism for measuring performance, which should lead to noticeable gains. The four tenets of the BSC that constitute the foundation of cooperative performance measurement are coherence, balance, completeness, and quantifiability, [38]. A positive relationship between a BSC and competitive strategy. Using BSC as a tool helped organizations to improve the performance of the financial sector 3.5 times over the last five years, while from the customer's perspective, it reduces waiting time by 30% and complaints were zero claims, the flow of goods increased by 4%, and the growth rate due to the human resource was 6%, [22]. The competitive advantage of Jordanian telecommunications firms is affected by the use of BSC perspectives (Financial, Customer, Internal processes, and Learning and growth), [23]. There is a strong relationship between BSC and bank performance, where BSC affect the learning and innovation performance, process performance, finances, and competitiveness of Egyptian bank, [24]. Organizational performance can be enhanced by the use of a BSC as it facilitates communication of the organization's plan to all members, encourages the feedback process, links short-term activities with a long-term strategy, and raises strategic employee awareness, [65]. A BSC positively affects an organization's competitive advantage, and both affect the organization's performance, [36].

It is recommended that the particular performance measures defined by the f BSC aspects (learning and growth, internal process, external stakeholders, and finance and carbon performance) be utilized as a functional framework for competitiveness indicators and to assess the success of the adoption and implementation of competitiveness strategies, [29]. There is a positive correlation between a BSC and financial performance and innovation outcomes, [66]. The perspective on learning and growth was given the highest rating, second by the perspective on the company's internal business operations, and then the perspective on the consumer, in that order, [67]. Implementing the four BSC perspectives (financial, internal business process, learning & growth, and customer) affects international competitiveness. The growth and learning perspective and financial perspective showed high performance while the customer and internal business perspectives showed poor performance, which indicated a shortage in

achieving international competitiveness as planned, [68]. BSC analysis showed that relational capital has the most effect on organizational performance and competitive advantage, [25]. BSC perspectives (customers, internal processes, finance, and learning and growth) are used to evaluate competitive factors, [27]. The BSC is used to evaluate the effect of technology applications on organizations. When the BSC is utilized, the source of the competitive advantage comes from the effective utilization of all assets, [26]. BSC utilizes Information Technology to achieve a competitive advantage, which includes quality, response, cost, and uniqueness. Both Information Technology and innovation lead to uniqueness, [28].

The use of BSC did not affect the performance as well as the competitive advantage of private universities, [69]. BSC is a strategic tool that guides SMEs to deal with knowledge, manage activities, and direct decision-making to help organizations be more competitive and profitable. It increases sales, improves quality, reduces costs, reduces turnover rate, and increases profitability, [70]. The BSC significantly affects the bank's ability to learn and innovate, as well as the bank's capability to manage its activities, and improves its relationship with customers. The BSC indicates that a bank's competitiveness is related to the level of the bank's performance, [30]. The BSC helps as a tool for competition and comparison between organizations in the market, [71], so the BSC directly affects competitive advantage, [72], also it helps organizations to differentiate their products from competitors. This may be accomplished by altering the product in a way that appeals to the majority of buyers while keeping the price and other features constant, [73]. There are various implementation challenges to adopting BSCs in SMEs, such as a lack of staff and financial constraints, although these do not prevent their use in large enterprises. Small and medium-sized businesses need less time to complete their projects than giant corporations do. In the end, large businesses benefit more from implementing a BSC than small and medium-sized enterprises, [74]. The organizational learning, financial perspective, customer focus, and internal business process affect the competitiveness of microfinance institutions in Kenya. The financial perspective increases financial capability. The internal business process increases the smooth efficient operation. Organizational learning enhances knowledge sharing, while customer focus helps to understand and satisfy customers' needs, [75]. Finally, the BSC reduces the cost and lowers turnover, [31].

As mentioned above, all previous studies indicated that using BSC as a tool for measuring and managing organizational performance would help organizations achieve a competitive strategy. BSC consists of four perspectives customer perspective, internal processes perspective, learning and growth perspective, and financial perspective, while competitive strategies include differentiation strategy, cost leadership strategy, and focus strategy. Therefore, the current study is dedicated to answering the research questions stated in the introduction through the following hypotheses:

H1: Implementing the BSC affects competitive strategies (differentiation strategy, cost leadership strategy, and focus strategy) of Jordanian small and medium manufacturing enterprises, at ( $\alpha \leq 0.05$ ). As shown in Figure 1.

H2: Implementing the BSC perspectives (financial, customer, internal business processes, and learning and growth) affect the competitive strategies of Jordanian small and medium manufacturing enterprises, at ( $\alpha \leq 0.05$ ). As shown in Figure 1.

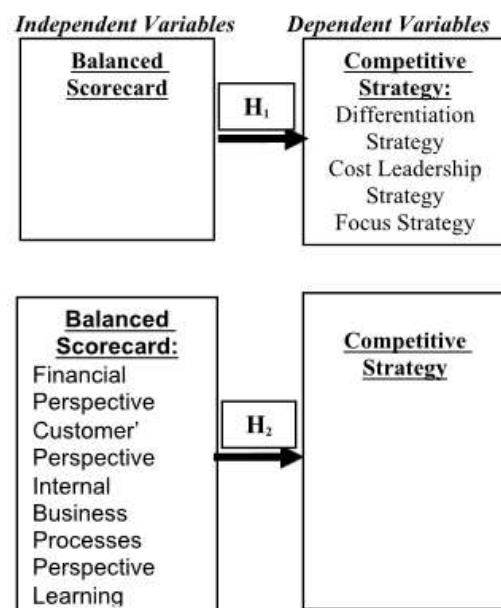


Fig. 1: Study Models

### 3 Problem Solution

#### 3.1 Methodology

The current research can be categorized as both a descriptive and a cause-and-effect study. The study's stated objective is to investigate the effectiveness of business strategy conceptualizations (BSC) in helping small and medium-sized manufacturing enterprises (SMMEs) in Jordan develop successful differentiation strategies. The research process

begins with a review of the relevant literature and in-depth interviews with subject matter experts to define the research topic and inform the development of the questionnaire. The questionnaire has been developed based on previous literature, it includes three sections: Demographic dimensions (Company name, capital of the company, number of employees, gender, age, experience, education, and position). The independent variable (Balanced Scorecard) includes financial perspective, customer perspective, internal business processes perspective, learning, and growth perspective. The dependent variable (Competitive Strategy) includes differentiation strategy, cost leadership strategy, and focus strategy. Five items and a five-point Likert-type scale measured each sub-variable of independent and dependent variables; from strongly not agree to strongly agree.

After completing the survey, checking, and coding the obtained data in SPSS, we ran many statistical tests, including a validity and reliability analysis, a correlation analysis, and the multiple regression analysis was used to test the study hypothesis:

H1: Implementing the BSC affects competitive strategies (differentiation strategy, cost leadership strategy, and focus strategy) of Jordanian small and medium manufacturing enterprises, at ( $\alpha \leq 0.05$ ).

H2: Implementing the BSC perspectives (financial, customer, internal business processes, and learning and growth) affect the competitive strategies of Jordanian small and medium manufacturing enterprises, at ( $\alpha \leq 0.05$ ).

As for the study's demographic and sample, they included all small and medium-sized manufacturing organizations in Jordan's Sahab Industrial Area. At least 206 companies will have enrolled with the Jordan Investors Association by the end of 2021. There was no need to sample because the survey included all of these companies. These businesses are broken down into their owners and managers. The questionnaires were distributed to organizations' managers and owners who are located in the Sahab Industrial Area and registered at the Jordan Investors Association. Two hundred questionnaires were distributed to managers and owners, and 120 were returned, which covers 100 companies. All of them were appropriate for further analysis and coded on SPSS.

### 3.2 Validity Test

Some authors indicated that factor loading of more than 0.50 is accepted while others mentioned 0.40 is accepted, [37], [76]. KMO between 0.8 to 1 shows high adequacy and harmony, the Chi<sup>2</sup> shows the

fitness of the model, and then the variance shows the explanation percentage of the variables. Finally, if the significance of Bartlett's Sphericity is less than 0.05 at 0.95, then using factor analysis is suitable [37], [77], [78], [79]. Table 1 demonstrates that the loading factor of BSC dimensions scored between 0.620 and 0.801. The Chi<sup>2</sup> for KMO is 129.198, and the variance is 58.059, which means that 58.1% of the BSC can be explained by the variance. Lastly, Bartlett's Sphericity has less than 0.05 importance at 0.95. Based on the results mentioned above, it is assumed that the construct is valid. Moreover, the competitive strategy sub-variables factor loading has ranged from 0.901 to 0.947. With a rating of 73.2%, a Chi<sup>2</sup> of 252.130, and a variance of 85.057, KMO has a competitive advantage of 85.1%. Lastly, Bartlett's Sphericity does not matter more than 0.05.

### 3.3 Reliability Test

A dependable instrument has a Cronbach's alpha of 0.70 or higher, while one that is just above 0.60 is considered valid, [37], [76], [80], [81]. Table 1 shows that BSC dimensions Cronbach's alpha range between 0.741 and 0.795, competitive strategy sub-variables between 0.875 and 0.907, and all sub-variables and dimensions are above 0.60.

Table 1. Validity and Reliability Tests

Persp./ Strat.	Items	$\alpha$	F1	KMO	Chi2	BTS	Var%	Sig.
F. P.	5	0.741	0.620	0.696	129.198	6	58.059	0.000
C. P.	5	0.795	0.837					
IBP P.	5	0.742	0.773					
L&G P.	5	0.768	0.801					
<b>BSC</b>	4	0.757						
CL S.	5	0.878	0.919	0.732	252.130	3	85.057	0.000
Diff. S.	5	0.875	0.901					
Focus S.	5	0.907	0.947					
Comp S.	3	0.912						

### 3.4 Demographic Characteristics of Respondents

Table 2 shows that most owners and managers are more than 40 years old, the majority have more than 10 years of experience, 45.8% have only a Diploma degree, and 54.2% have a higher degree. Finally, 54.2% are managers and 45.8 are owners.

Table 2. Demographic Analysis

Dimension	Frequency	Percentage
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Age	Less than 30	23	19.2
	Bet. 30-40	30	25.0
	Bet. 41-50	35	29.2
	More than 51-	32	26.7
	<b>Total</b>	<b>120</b>	<b>100.0</b>
Experience	Less than 10	18	15.0
	Bet. 11-20	54	45.0
	Bet. 21-30	33	27.5
	More than 30	15	12.5
	<b>Total</b>	<b>120</b>	<b>100.0</b>
Education	Diploma	55	45.8
	Bachelor	22	18.3
	Master	26	21.7
	Ph.D.	17	14.2
	<b>Total</b>	<b>120</b>	<b>100.0</b>
Position	Manager	65	54.2
	Owner	55	45.8
	<b>Total</b>	<b>120</b>	<b>100.0</b>

### 3.5 Descriptive Statistical Analysis

Table 3 demonstrates that respondents think that BSC aspects are important, with means ranging from 3.79 to 4.07 and standard deviations from 0.71 to 0.55. The average mean of BSC dimensions is 3.98 with a standard deviation of 0.48, indicating that respondents esteem the BSC highly. The t-value=20.2 is higher than the t-tabulated=1.96. Financial, internal business procedures, customer, and learning and growth perspectives are ranked highest in the table. Table 4 demonstrates that respondents think that competitive strategy sub-variables are important. The means vary from 3.66 to 3.95, with a standard deviation of 0.83 to 0.79. The average mean of competitive strategy sub-variables is 3.85, with a standard deviation of 0.75, indicating that respondents agree on their high importance since t-value=11.38 is more than t-tabulated=1.96. The table reveals that the focused approach is most important, followed by cost leadership and distinctiveness.

Table 3. Mean, Standard Deviation, t-value, Ranking, and Importance of Sub-Variable

No.	Dimensions	M	S.D	t	Sig.	Rank
1	F. Perspective.	4.056	0.554	20.851	0.00	2
2	C. Perspective.	3.967	0.660	15.957	0.00	3
3	IBP Perspective	4.088	0.571	20.883	0.00	1
4	L&G Perspective.	3.755	0.715	11.55	0.00	4
	<b>BSC</b>	<b>3.965</b>	<b>0.478</b>	<b>22.1256</b>	<b>0.00</b>	
1	CL Strategy	3.902	0.836	11.813	0.00	2
2	Diff. Strategy	3.645	0.828	8.531	0.00	3
3	Focus Strategy	3.930	0.819	12.440	0.00	1
	<b>Comp. Strategy</b>	<b>3.826</b>	<b>0.763</b>	<b>11.849</b>	<b>0.00</b>	

T-tabulated=1.960

### 3.6 Relationships between Dependent and Independent Variables

The results are shown in Table 4, where the correlations between the various aspects of BSC and competitive strategy range from 0.295 to 0.661, and where the correlation between BSC and competitive strategy is 0.823, indicating a strong association between the two.

Table 4. Bivariate Pearson Correlation between all Variables and Sub-Variables

No		1	2	3	4	5	6	7	8	9
1	Fin P									
2	Cus. P	.303**								
3	IBP P	.429**	.504**							
4	L&G P	.295**	.661**	.419**						
5	BSC	.633**	.831**	.754**	.813**					
6	CL S	.469**	.711**	.480**	.649**	.768**				
7	Diff. S	.477**	.619**	.573**	.512**	.715**	.712**			
8	Foc. S	.465**	.690**	.620**	.634**	.795**	.828**	.786**		
9	CS	.510**	.730**	.604**	.649**	.823**	.919**	.903**	.945**	

\*\* Correlation is significant at the 0.01 level (2-tailed).

### 3.7 Hypothesis Testing

Multiple regression was employed to evaluate the hypotheses of the study after validity, reliability, and the correlation between the BSC and Competitive Strategy variables were established; additionally, the normality, linearity, independence of errors, and multi-collinearity of the data were examined, [76], [82].

Normality: As can be seen in Figure 2, the data histogram shape is normally distributed, indicating that the residuals do not affect the normal distribution.

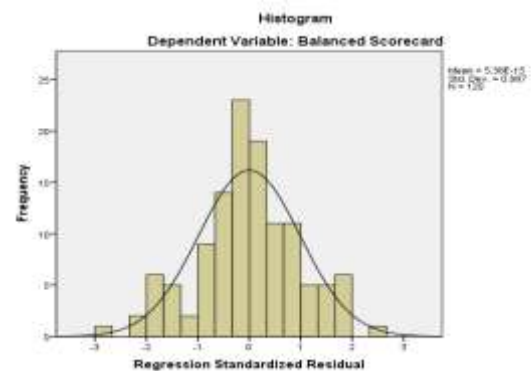


Fig. 2: Normality Test

Linearity Test: Observe in Figure 3 how the independent and dependent variables line up in a straight line.



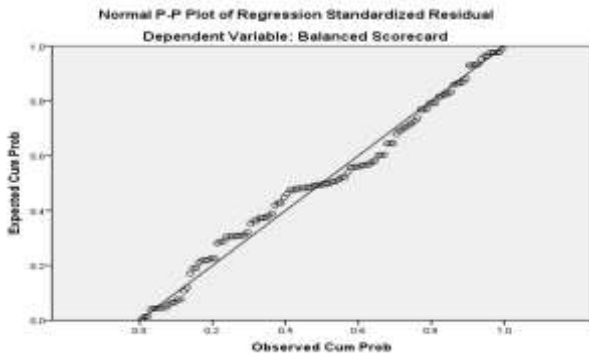


Fig. 3: Linearity Test

Independence of Errors: The scatterplot of standard deviations around the mean is shown in Figure 4; the use of Durbin-Watson was implemented to guarantee the errors' independence.

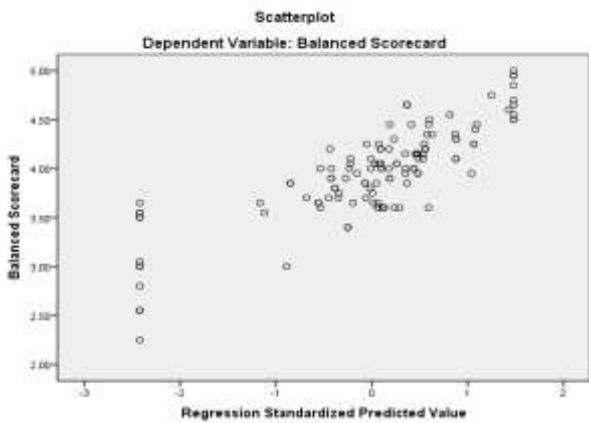


Fig. 4: Scatterplot Test

Multi-Collinearity: The Collinearity model does not break this assumption since, as shown in Table 5, the VIF (Variation Inflation Factor) value is less than 10 and the tolerance is greater than 10%. When compared to 2, Durbin-Watson is significantly lower at 1.988.

Table 5. Collinearity Statistics

Sub-Variables	Collinearity Statistics	
	Tolerance	VIF
Cost Leadership Strategy	0.304	3.285
Differentiation Strategy	0.370	2.701
Focus Strategy	0.236	4.245

### 3.7.1 Main Hypothesis: Multiple Regressions:

H1: Implementing the BSC affects competitive strategies (differentiation strategy, cost leadership strategy, and focus strategy) of Jordanian small and medium manufacturing enterprises, at ( $\alpha \leq 0.05$ ). Table 6 demonstrates that the study model is appropriate by calculating an f-value of 83.362 when the BSC viewpoints are regressed against the

three Competitive Strategies and that R<sup>2</sup> demonstrates the independent variable's explanatory power on the dependent variable. Model results indicate that the BSC may account for 68.3% of the variance in Competitive Strategy (R<sup>2</sup>=0.683, f=83.362, Sig. =0.000). Therefore, the null hypothesis that no significant difference exists between the groups before and after BSC implementation (differentiation strategy, cost leadership strategy, and focus strategy) is accepted at ( $\alpha \leq 0.05$ ).

Table 6. Multiple Regression Analysis of Balanced Scorecard against Competitive Strategy

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	f	Sig.
1	0.827 <sup>a</sup>	0.683	0.675	83.362	.000 <sup>b</sup>

a. Predictors: (Constant), Focus Strategy, Differentiation Strategy, Low-Cost Strategy. b. Dependent Variable: Balanced Scorecard.

Table 7. Multiple Regressions Analysis of Balanced Scorecard against Competitive Strategy (ANOVA)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(constant)	1.983	0.128		15.514	0.000
1	CL. S.	0.178	0.054	0.311	3.285	0.001
	Diff. S.	0.107	0.050	0.185	2.152	0.033
	Foc. S.	0.229	0.063	0.392	3.643	0.000

T-tabulated=1.960

According to Table 7, the BSC has the greatest effect on the focus strategy (Beta=0.392, t=3.643, Sig. =0.000), followed by the cost leadership strategy (Beta=0.311, t=3.285, Sig. =0.001) and the differentiation strategy (Beta=0.185, t=2.152, Sig. =0.033). H2: Implementing the BSC perspectives (financial, customer, internal business processes, and learning and growth) affect the competitive strategies of Jordanian small and medium manufacturing enterprises, at ( $\alpha \leq 0.05$ ).

Table 8 displays the results of regression analysis between the four BSC viewpoints and the average of Competitive Strategies. The f value of 62.844 indicates that the study model is appropriate, and the R<sup>2</sup> value indicates the explanatory power of the independent variable on the dependent variable. Results from the model suggest that the four BSCs can account for 68.6% of the variance in Competitive Strategy (R<sup>2</sup>=0.686, f=62.844, Sig. =0.000). Thus, at (0.05), it is concluded that small and medium-sized manufacturing firms in Jordan can benefit from adopting the BSC viewpoints (financial, customer, internal business processes, and learning and growth) to improve their competitive strategies.

Table 8. Multiple Regression Analysis of Balanced Scorecard against Competitive Strategy

Model	r	R <sup>2</sup>	Adjusted R <sup>2</sup>	f	Sig.
1	0.828 <sup>a</sup>	0.686	0.675	62.844	.000 <sup>b</sup>

*a. Predictors: (Constant), Learning and Growth, Financial Perspective, Internal Business Processes, Customer Perspective. b. Dependent Variable: Competitive Strategy.*

Table 9. Multiple Regressions Analysis of Balanced Scorecard against Competitive Strategy (ANOVA)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(constant)	-1.361	0.356		-3.818	0.000
1					
Fin. P.	0.319	0.080	0.232	3.969	0.000
Cus. P.	0.471	0.085	0.407	5.514	0.000
IP P.	0.274	0.086	0.205	3.182	0.002
L&G. P.	0.241	0.075	0.225	3.192	0.002

*T-tabulated=1.960*

Table 9 shows that the customer perspective has the greatest effect on competitive strategies, followed by the financial perspective (Beta=0.232, t=3.969, Sig. =0.000), the perspective on learning and development (Beta=0.225, t=3.182, Sig. =0.002), and the perspective on internal processes (Beta=0.205, t=3.182, Sig. =0.002).

#### 4 Discussion

This study looked at how the balance-scored card could enhance the Jordanian SMMEs' comparative strategy. The issue arose when the owners and managers began griping about the quality and cost of the Chinese company's products and enquiring as to how they might compete with them. The article used a descriptive cause-effect quantitative method and a questionnaire has been used to gather data from the company's managers and owners to examine the hypotheses. Data were collected from 120 respondents representing 100 companies. The data have been analyzed with SPSS, and hypotheses have been verified using the results. According to the findings, implementing the BSC affects the competitive strategies of Jordanian small and medium manufacturing enterprises, specifically their differentiation strategy, cost leadership strategy, and focus strategy. The results show that the implementation of the BSC has the greatest impact on the focus strategy, followed by the cost leadership strategy, and then the differentiation strategy. The results also show that implementing the BSC perspectives (financial, customer, internal business processes, and learning and growth) affects

the competitive strategies of Jordanian small and medium manufacturing enterprises at (<0.05), with the customer perspective having the greatest impact, followed by the financial, learning and growth, and internal processes perspectives.

These results are matching with most of the previous research results such as the four perspectives of BSC having to be measured and aligned with corporate social responsibility to create competitive advantage, [12]. A BSC system measures performance and creates a competitive advantage, [11]. The application of the BSC improves performance and helps to achieve business excellence and competitive advantage, [13]. BSC improves profitability and financial performance, [14]. Applying BSC encourages satisfying customers' needs and shareholders' requirements [40]. BSC accelerates creativity and innovation, [15].

The rating that was given to internal business processes was the highest, followed by the customer perspective, the financial perspective, and then learning and growth, in that order, [43]. Higher use of BSC in market competition improves business performance, [16]. Healthcare organizations use the four BSC perspectives to affect the organization's competitiveness, [17]. BSC impacts organizations' competitiveness, [59]. When considering price, quality, and adaptability, BSC is relevant, [19]. There is a robust correlation between BSC variables and Jordanian pharmaceutical manufacturing organizations' business performance, [60]. BSC both are used to measure performance and cost management, which improve organizations' performance of manufacturing organizations, [61]. To strengthen the company's standing in the market and its financial prospects, BSC can be used as a useful tool, [20]. A successful business strategy results when all of the BSC's vantage points meet the needs of the company's constituents, both internal and external, [44]. BSC leads to success and a better competitive position, [62]. A sustainable BSC is significantly related to competitive strategy in a good way, [49].

BSC factors affect marketing competitive strategies. Financial factors rated the highest priority and the differentiation strategy scored the highest marketing competitive strategy, [63]. BSC improves competitive priorities (value, delivery, flexibility, and innovation), which influence organizations' performance, [21]. The four perspectives of the BSC enhance organizational performance, [41]. A positive relationship between a BSC and competitive strategy, [22]. Using BSC perspectives affects the competitive advantage of Jordanian

telecommunications organizations, [23]. BSC has a significant effect on the success and competitiveness of banks, [24]. A BSC helps to improve organizational performance [65]. A BSC positively affects an organization's performance and organization's competitive advantage, and both affect the, [36].

The four BSC dimensions define specific performance indicators, which should be used as a practical guideline for competitiveness indicators, [29]. Having a BSC is associated with better financial results and more creative solutions to problems, [66]. The perspective on learning and growth received the highest rating, followed by the perspective on the company's internal business operations, and then the perspective on the consumer, in that order, [67]. Implementing the four BSC perspectives affects international competitiveness. The growth and learning perspective and financial perspective showed high performance while the customer and internal business perspectives showed poor performance, which indicated a shortage in achieving international competitiveness as planned, [68]. BSC analysis showed that relational capital has the most effect on organizational performance and competitive advantage, [25]. BSC perspectives are used to evaluate competitive factors, [27]. When using the BSC the competitive advantage is derived from the efficient use of fixed capital and intangible assets, [26]. BSC uses Information Technology to create a competitive advantage, which includes cost, rapid response, and uniqueness, [28].

The BSC implementation does not affect the competitive advantage and performance of private universities, [69]. BSC is a strategic approach that facilitates decision-making to be more competitive and profitable, [70]. According to the BSC system, the level of the bank's performance influences the bank's competitiveness, [30]. Implementing a BSC is simpler and more fruitful for large companies than it is for SMEs, [74]. Organizational learning, financial perspective, customer focus, and internal business processes affect the competitiveness of microfinance institutions in Kenya, [75]. Finally, the BSC reduces the cost and lowers turnover, [31].

This article demonstrated how utilizing a BSC is becoming more and more important because it aids businesses in reflecting their strategic plans and achieving a competitive strategy. Furthermore, it shows which perspective managers should take into account when developing their competitive strategy. Additionally, it serves to highlight the perspective that managers should prioritize in light of their competitive strategy. However, it appeared that the

innovation perspective is the least unimportant for the businesses in Jordan. Particularly when compared to China's industrial sectors, innovation is the key to success in the market, [83]. Therefore, businesses should concentrate on enhancing their innovation outlook to compete with Chinese products.

## 5 Conclusions

The competition between the Jordanian SMMEs manufacturing industry and the imported products from foreign countries especially from China is increasing. The import from China is increasing, which negatively affects local manufacturing companies, the Chinese products are at lower prices with the same quality compared with locally manufactured products. Therefore, this research aims to investigate how local manufacturing companies can compete with imported products. To gain a competitive edge, local manufacturers must assess and improve their operations. The effectiveness of SMMEs can be evaluated and compared using the BSC method. Thus, the purpose of this study is to investigate how different BSC viewpoints affect the strategies employed by small and medium-sized enterprises (SMEs) in the marketplace. The questionnaire used in the study takes a quantitative descriptive and causal approach. A total of 120 participants, representing 100 different businesses, provided the data. Data analysis and hypothesis testing were performed using SPSS.

The results reveal that SMEs in Jordan's manufacturing sector changed their competitive strategies because of implementing the BSC, with the greatest effect seen on SMEs' focus strategies, followed by their cost leadership strategies, and finally their differentiation strategies. Furthermore, the results demonstrate that the competitive strategies of Jordanian small and medium manufacturing enterprises are affected by the implementation of the BSC perspectives (financial, customer, internal business processes, and learning and growth), with the customer perspective having the greatest impact on competitive strategies, followed by the financial perspective, the learning and growth perspective, and the internal processes perspective.

Limitations/Recommendations: The small and medium-sized enterprises (SMEs) of Jordan's Sahab Industrial Area were the focus of this research. This could prevent the extrapolation of findings to other fields or even different nations. As a result, this study suggests future research be conducted on

related topics in other sectors, additional nations, and further into the future.

**Practical Implications:** This article illustrated how using a BSC is essential to measure and manage organizational performance via analyzing weaknesses and strengths, which helps to achieve competitive strategies. Therefore, owners and managers should use BSC as a tool before setting strategic goals and objectives to achieve a competitive strategy. The industry should provide training for all managers and owners on how to use BSC in daily practices to be able to compete with Chinese products, organizations should focus on improving their innovation outlook. Training should be related to BSC components including how to improve the relationship with customers, internal processes, and learning and growth to enhance competitive advantage and strategy. Training should be provided to all owners and managers in SMMEs at different levels and have to be provided by experts such as the Balanced Scorecards Institute or any certified body.

**Social Implications:** Managers and owners should consider corporate social responsibility dimensions (social, economic, and environmental responsibilities) when they use BSC for better contribution to the community and economy, and preserve the environment through using eco-friendly material.

**Originality/Value:** It is probable that, to date, this is one of the only studies in Jordan to examine the issue of how using a BSC can affect a company's ability to stay competitive.

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The authors equally contributed to the present research, at all stages from the formulation of the problem to the final findings and solution.

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The authors have no conflicts of interest to declare that are relevant to the content of this article.

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