

# Adoption of Managerial Accounting Techniques in Decision Making Process Among SMEs in Amman Capital City of Jordan

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## Abstract

The small and medium undertakings in Jordan are the foundation of the Jordanian economy. These organizations contribute more than half of the state's financial plan. The present study investigates the adoption of Managerial Accounting Techniques (MAT) in Jordanian ventures. It also examines the commitment of MAT in the decision making process of managers and employees. There are fourteen hundred SMEs in Amman. The multi-organize inspecting method is involved to get the specimen. By methodical testing strategies, 30 SMEs (14 medium and 16 small) endeavours are chosen to direct the overview after the selection of these 30 SMEs, the populace strata were stratified into two categories; small (10-19 employees) and medium ventures (20 - 99 employees). The content of the questionnaire was, one hundred questionnaires (male= 77, female= 23) were filled by managers of these foundations. Whereas, 200 questionnaires were filled by employees (male= 148 female=52) of these SMEs. It is found that the market competition and owner/manager participation have a positive impact on public. In light of the results, the researchers have made a number of recommendations that will help the Jordanian small and medium enterprises in reducing the cost and growth of companies, through use of management accounting techniques, in order to be able to upgrade and improve the economy, and make right decisions.

**Keywords:** Managerial Accounting Techniques, Decision Making Process, SMEs

## Introduction

Companies require advancement and constant change in their execution for keeping up their movement and survival in the dynamic focused situations. The capacities and limits of companies through proficient and powerful utilization of the company's assets are presented as the vital devices for development of hierarchical execution that profiting from it requires mindful administration. Accordingly, gathering and giving of relevant data to companies will help in the implementation and use of management accounting techniques. Moreover, administration for accomplishing the company's targets requires firm designs. Management accounting can utilize distinctive arrangements in the plans through proper working techniques and additionally help chiefs in accomplishing the destinations. The current advance of analysts in the field of focused markets shows that small and medium enterprises needs management accounting techniques with a specific end goal to enhance their execution as indicated by the changing competitive conditions. The conducted study demonstrates that management accounting can be utilized as a part of request to give the managers required information and therefore can be utilized to enhance the company's execution (Nayebzadeh & Ganjavi, 2012, 3). The small and medium enterprises in Jordan face many obstacles, namely the privatization of companies and wars in Syria and Iraq, which led to the increase of economic crises, thus leading to the need to use accurate sources of information and scientific management tools to help companies make decisions to increase productivity and investment in Jordan. Administrative accounting provides many services to companies to contribute to the achievement of their objectives, and these services are not limited to accounting methods only, but to financial and economic concepts and quantitative and statistical methods to facilitate the tasks of management in achieving its purpose. Management accounting techniques contribute to providing the necessary assistance to managers in order to enable them to carry out their functions of planning, monitoring and evaluating the performance and decision-making through analytical and detailed information produced through the daily operation of data generated by the organization's activities (Arora, 2009). Technology has become a major demand of the times and an intervention in most fields. Information technology is a major engine for the development of science and represents a great support for the various sciences and life activities. Management accounting is of great importance in providing the necessary information to help departments in decision making, planning, operational; cost-related and operational-related revenues that assist in the preparation of planning budgets (Krishan, 2013). Information technology has a significant contribution to improving and enhancing the efficiency of enterprise activities by improving product quality and reducing associated costs. Information technology also plays an active role in assisting senior management in making effective decisions and drawing up future plans and strategies for the organization (Naseef, 2010).

## Literature review

Zourb & Hamdi, S. (2007) To determine whether the industrial companies in the Gaza Strip apply management

accounting techniques and help to expand them and know which methods are most used. The researchers conducted a field study using a questionnaire. The study pointed out that the use of management accounting techniques by industrial companies in Gaza Strip is weak, as well as the field of their use, and concluded several recommendations, the most important of which are: developing awareness, desire and ability to use and apply management techniques, and increasing the awareness of officials in industrial companies in Gaza Strip. It concluded that the importance of the role played by management accounting through its multiple and diverse methods provides appropriate information that helps managers perform their functions such as planning, controlling, performance evaluation and decision-making.

Emily et al., (2007). This is the first study to explain management accounting techniques and their uses in the Caribbean. The study aimed to provide the necessary data and information to increase and develop the use of management accounting techniques and competition between companies in the Caribbean. The study found that most companies use traditional management accounting techniques more than modern management accounting techniques, and that most companies do not have a clear definition of management accounting techniques. They also do not have independent departments or persons responsible for applying management accounting techniques.

Hassan & Alaa. M. (2004) Jordanian industrial companies looked for managerial accounting strategies that include total quality management and cost-based accounting. In addition, the study investigated whether the use of these concepts is related to the improvement of financial performance. The study found a positive relationship between the use of TQM concepts, the activity-based cost accounting system, improve financial performance separately, and the simultaneous use of these concepts further supports financial performance. The study recommended that companies that do not adopt an activity-based cost accounting system should use it and that they should undertake a study of their needs and requirements and what this system can offer before using it. Moreover, the efforts of the Jordanian companies in general and the industrial ones in particular do not adopt the concepts of TQM to work on their use because of their benefits and positive effects in terms of quality and thus customer satisfaction.

Nandan, (2010) pointed out that the pace of appropriation of modern management accounting was moderate by numerous organizations, for the most part SMEs; this has prompted the decreasing importance of management accounting as a crucial guide to managerial decision making. This gap is generally referred to as lost importance and that management accounting has no extension of the imagination and ideas abandoned by the regular management accounting. Parts of management accountants have turned out to be huge given the significance of different vital choices, along these lines an expanding shift in centre from customary to present day management accounting procedures so as to satisfy this developing requirement for management accounting as a guide to strategic decisions making.

Farjana Y. and M. A, (2011). Management accounting techniques are still in the process of being developed and progressed by some companies. Hence, it runs over an indistinguishable obstacle from a generally new train needs to confront honing of scientific instruments and enhancements of systems making vulnerability about their application. There is dependably a compulsion to make a simple course of touching base at choices by instinct instead of taking the trouble of logical basic leadership. The study collects data from financial accounting, cost accounting and different records. Managerial Accounting will not supplant the management and organization. It is just a device of management. Obviously, it will spare the administration from being submerged in accounting routine and process the information and propose certainties digressing from the standards so as to empower the management to take choice by the administer of special case.

The study of Yacoub, (2009) aimed to identify the effect of the implementation of the production system on time to maximize the profitability of the industrial companies contributing to Jordan through (reducing production costs, improving product quality, reducing damage rates, achieving competitive advantage and reducing the time factor). The study also focused on the development of technological methods and the expansion of their use in the industrial companies contributing in Jordan in line with the requirements of applying the system in the companies' understudy, and providing the industrial companies contributing in Jordan with qualified human cadres capable of implementing the production system on time.

### **Problems of study**

The economic crisis that Jordan is suffering due to the crises in the neighbouring countries, showed a large gap in the use and adoption of accounting management techniques, which in turn helps to reduce the crisis, increase production and investment, and identify the use of the importance of technology and market competition in the management accounting techniques.

### **The study aims to**

- evaluate the function of managerial accounting techniques towards decision-making process.
- evaluate market competition and its contribution in managerial accounting techniques towards decision-

- making process.
- determine owner/manager's participation and their contribution in managerial accounting techniques towards decision-making process.

### Hypothesis of the study

**H.1.** The modern management accounting techniques positively influence decision-making process.

**H.2.** Market competition has significantly contributed to modern management techniques for the decision-making process.

**H.3.** The participation of the owner/manager has significantly contributed to modern managerial accounting techniques for the decision-making process.

### Methodology

This study is part of the descriptive and analytical approach. The questions, hypotheses and model of the study were developed by reviewing the theoretical literature. The questionnaire was then developed in proportion to the target data in order to arrive at the conclusions and recommendations on the importance of integration between managerial accounting techniques and decision making process in improving the performance of Jordanian SMEs and reducing the cost of production. The total distribution of one hundred and six questionnaires were distributed in these enterprises so as to be filled by total numbers of their managers (72 questionnaires in medium enterprises and 34 questionnaires in small enterprises). The researchers attained back 100 filled questionnaires from managers; 70/72 (medium=97%) and 30/34 (small=88%). Two hundred and twenty-eight questionnaires were distributed on basis of strata in these enterprises to be filled by total numbers of their employees (160 questionnaires in medium enterprises and 68 questionnaires in small enterprises). The researchers obtained 200 filled questionnaires from employees; 142/160 (medium=89%) and 58/68 (small=85%). That is quantitative in nature based on the close-ended structured questionnaire of five point Likert Scale (Strongly agree= 5 to strongly disagree =1) used by Kamilah Ahmad, (2012) with some modification.

### Findings and analysis

The first part deals with a multiple hierarchical regression that was conducted to control the influence of moderation of variables on the decision making process (DMP). For this purpose, an independent sample of T-test and ANOVA was performed. To obtain deep differences in the groups, the Tukey HSD test was also used. In the second part, a Structural Equation Modelling Technique (PLS-SEM) was used to validate the conceptual model.

#### 1. First Part

Table 1. MAT in managers to predict DMP in SMEs

ModelR	R Square	Adjusted R Square	SE of the Estimate			
1	.252 <sup>a</sup>	.064	.024	4.48078		
2	.257 <sup>b</sup>	.066	.016	4.49884		
Model	SoS	Df	M S	F	Sig.	
1	Regression	129.650	4	32.412	1.614	.177 <sup>b</sup>
	Residual	1907.350	95	20.077		
	Total	2037.000	99			
2	Regression	134.480	5	26.896	1.329	.259 <sup>c</sup>
	Residual	1902.520	94	20.240		
	Total	2037.000	99			
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	SE	Beta		
	(Constant)	30.986	1.484		20.880.000	
1	Gender	-3.225	1.925	-.301	-1.675 .097	
	management levels	-1.046	1.214	-.157	-.862 .391	
	Age	.440	1.122	.078	.392 .696	
	Educational level	2.259	1.456	.292	1.551 .124	
	(Constant)	29.218	3.913		7.467 .000	
	Gender	-3.079	1.956	-.287	-1.574 .119	
	management levels	-.972	1.229	-.146	-.791 .431	
2	Age	.425	1.126	.076	.377 .707	
	Educational level	2.252	1.462	.291	1.540 .127	
	Manager_ Modern managerial accounting techniques	.065	.134	.053	.489 .626	

Table 1 lists the hierarchical multiple regression to evaluate one control measure (Modern Managerial

Accounting Techniques in Managers) of predicting levels of decision-making after controlling the implications of demographics. In the first step, demographic data (level of education, level of management, gender and age) was specified, which explains 6.4% of the difference in the decision-making process. The gender and management level had statistically significant Beta record (beta = -30 and beta = -157). After Modern Managerial Accounting Techniques was entered in Step 2, the overall deviation was explained by the model as a whole of 6.6%.  $F(4, 95) = 1.329, p < .259$ . One control measure explained the additional occurrence of discrepancies in decision-making process by another 0.2% after checking the demographic data, change to square  $R = 0.20$ . In the second model, control measures were statistically insignificant and recorded a beta value (beta = .053).

Table 2. Market Competition in managers to predict Decision Making Process in SMEs

Model	R	R Square	Adjusted R Square	SE of the Estimate
1	.252 <sup>a</sup>	.064	.024	4.48078
2	.433 <sup>b</sup>	.187	.144	4.19655

ANOVA <sup>a</sup>						
Model		SoS	Df	M S	F	Sig.
1	Regression	129.650	4	32.412	1.614	.177 <sup>b</sup>
	Residual	1907.350	95	20.077		
	Total	2037.000	99			
2	Regression	381.566	5	76.313	4.333	.001 <sup>c</sup>
	Residual	1655.434	94	17.611		
	Total	2037.000	99			

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
		B	SE			
1	(Constant)	30.986	1.484		20.880	.000
	Gender	-3.225	1.925	-.301	-1.675	.097
	management levels	-1.046	1.214	-.157	-.862	.391
	Age	.440	1.122	.078	.392	.696
	Educational level	2.259	1.456	.292	1.551	.124
2	(Constant)	17.489	3.830		4.567	.000
	Gender	-2.930	1.805	-.273	-1.624	.108
	management levels	-.177	1.160	-.027	-.153	.879
	Age	-.250	1.066	-.045	-.234	.815
	Educational level	1.620	1.374	.209	1.179	.242
	Manager_Market Competition	.338	.089	.370	3.782	.000

**Table 2** reports a hierarchical multiple regression to evaluate one of the Market Competition in Manager control measures of predicting levels of decision-making after demographic impact control. In the first step, demographic data (level of education, level of management, gender and age) was specified, which explains 6.4% of the difference in the decision-making process. The gender and management level had statistically significant Beta record (beta = -30 and beta = -157). After the market competition was placed on step 2, the overall deviation was explained by the model as a whole of 18.1%.  $F(4, 95) = 4.333, p < .001$ . One control measure explained an additional 14% discrepancy in the decision-making process after checking the demographic data, changing to a square  $R = 1.41$ . In the second model, control measures were statistically significant to record beta (beta = 0.37).

Table 3. Owner/Manager Participation in Manager to predict level of Decision Making Process, after controlling the influence of demographics in SMEs

Model Summary						
Model	R	R Square	Adjusted R Square	SE of the Estimate		
1	.252 <sup>a</sup>	.064	.024	4.48078		
2	.415 <sup>b</sup>	.172	.128	4.23558		
Model		SoS	Df	M S	F	Sig.
1	Regression	129.650	4	32.412	1.614	.177 <sup>b</sup>
	Residual	1907.350	95	20.077		
	Total	2037.000	99			
2	Regression	350.626	5	70.125	3.909	.003 <sup>c</sup>
	Residual	1686.374	94	17.940		
	Total	2037.000	99			

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
		B	SE			
1	(Constant)	30.986	1.484		20.880	.000
	Gender	-3.225	1.925	-.301	-1.675	.097
	management levels	-1.046	1.214	-.157	-.862	.391
	Age	.440	1.122	.078	.392	.696
	Educational level	2.259	1.456	.292	1.551	.124
2	(Constant)	18.747	3.759		4.987	.000
	Gender	-2.809	1.824	-.262	-1.540	.127
	management levels	-.279	1.169	-.042	-.239	.812
	Age	.214	1.062	.038	.201	.841
	Educational level	.877	1.432	.113	.612	.542
	Manager_Owner/Manager Participation	.307	.087	.355	3.510	.001

**Table 3** shows a hierarchical multiple regression to assess the control measure (Participation of Owner / Manager in Managers) predicting levels of decision-making after demographic impact control. In the first step, demographic data (level of education, level of management, gender and age) was specified, which explains 6.4% of the difference in the decision-making process. The gender and management level had statistically significant Beta record (beta = -30 and beta = -157). Upon the start of the owner / manager's participation in Step 2, the overall variance was explained by the model as a whole of 17.2%,  $F(4, 95) = 4.333$ ,  $p < 0.001$ . One control measure explained an additional 11% discrepancy from decision support decision-making to demographic data control, change in squares = 1.08. In the second model, control measures were statistically significant to record beta (beta = 0.36).

**2. Second Part**

**Figure 1. Contribution of Demographics Variables and Managerial Accounting Techniques of Managers in Decision-Making Process in SMEs in Amman, Jordan**

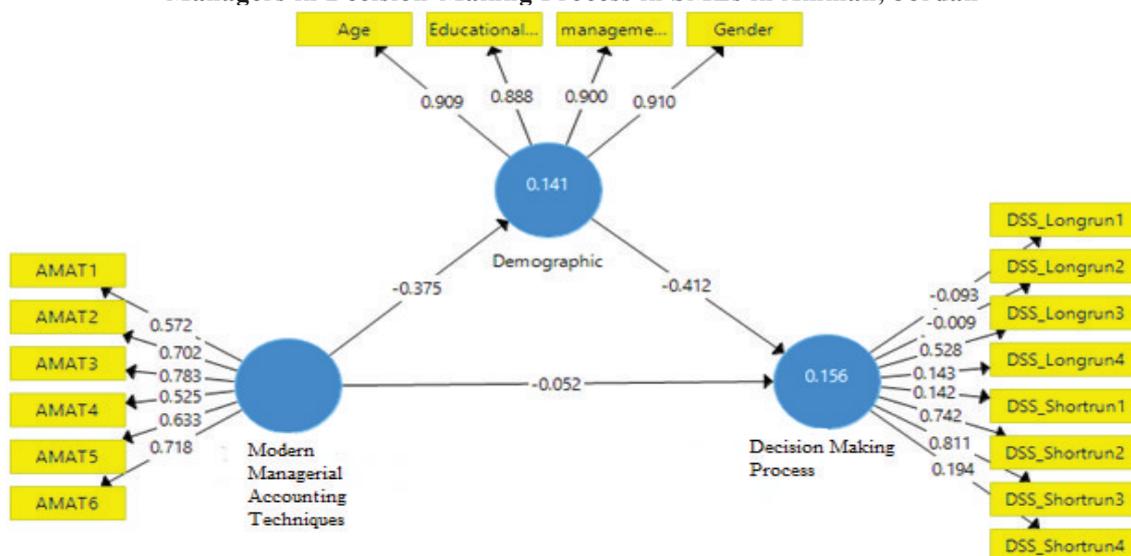


Figure 1 shows that demographic variables (age, educational level, management level and gender) were the significant contributors of decision-making process of managers in SMEs in Amman, Jordan,  $\beta = -0.412$ . The

managerial accounting techniques also contributed in decision-making process,  $\beta = -0.052$ . Whereas, demographic variables contributed more as compared to managerial accounting techniques in decision-making process of SMEs. In the outer loading factors, the age  $r = 0.909$ , and MAT (measuring and evaluating performance)  $r = 0.783$  were the most contributed factors in the decision-making process.

**Figure 2. Contribution of Demographics Variables, Market Competition, and Managerial Accounting Techniques of Managers in Decision-Making process in SMEs in Amman, Jordan**

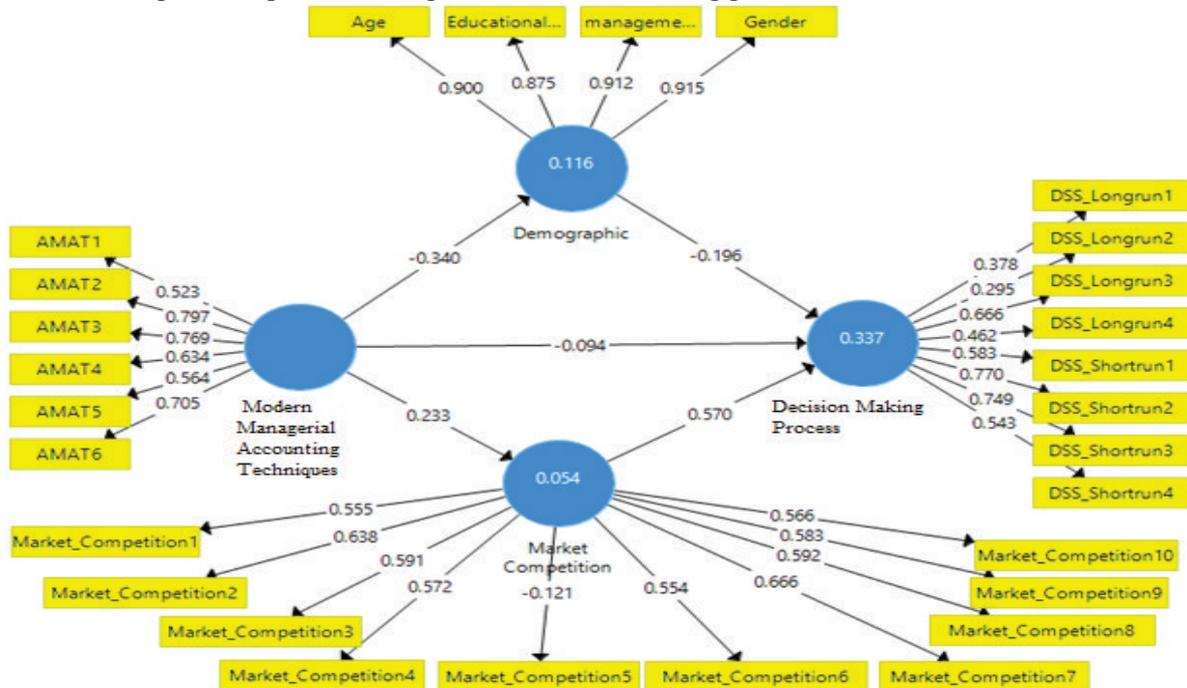


Figure 2 shows that variations were observed when market competition was added in the model. The level of decision-making process in managers was enhanced from 0.156 to 0.337. The contribution of demographic variables was raised in decision-making process,  $\beta = -0.196$ . Whereas, market competition contributed more  $\beta = 0.570$  as compared to managerial accounting techniques to decision-making process  $\beta = -0.094$ . In the outer loading factors, gender  $r = 0.915$ , MAT (controlling current activities) 2  $r = 0.797$ , market competition (expanding market share)  $r = 0.666$  were the most significant factors observed in decision-making process.

**Figure 3. Contribution of Demographic Variables, Owner/Manager's Participation, and Managerial Accounting Techniques of Managers in Decision-Making Process in SMEs in Amman, Jordan**

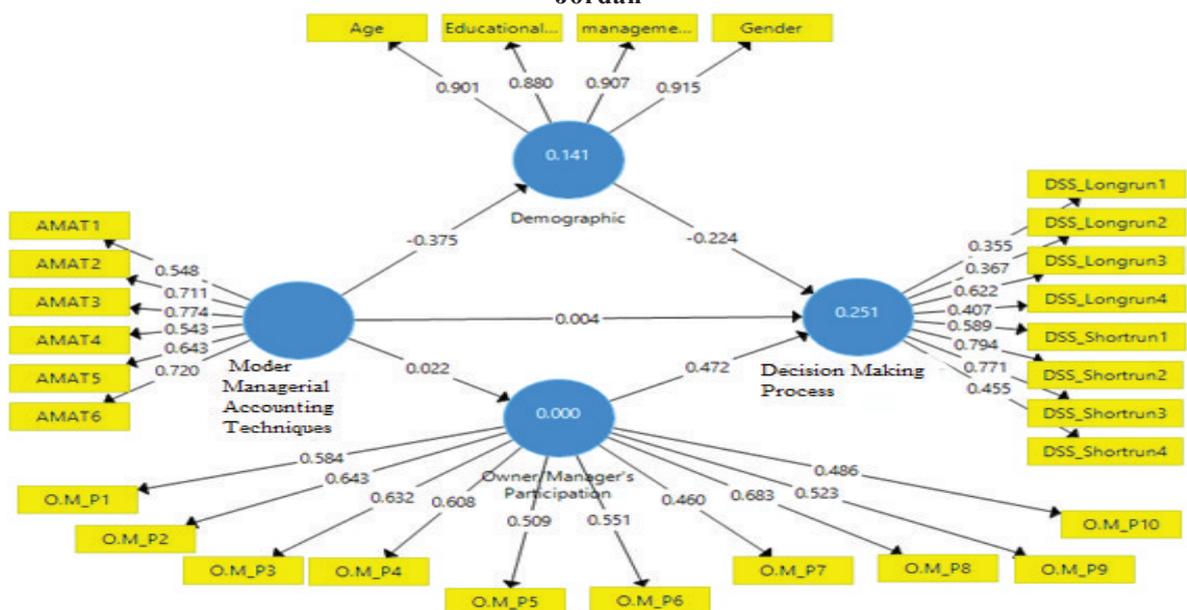


Figure 3 shows that variations were observed when owner/manager's participation was added in the model.

The level of decision-making process in managers was enhanced from 0.156 to 0.251. The contribution of demographic variables (age, school and gender) were raised in decision-making process,  $\beta = -0.224$ . Whereas, owner/manager's participation contributed more to decision-making process  $\beta = 0.472$  as compared to managerial accounting techniques to decision-making process  $\beta = 0.004$ . In the outer loading factors, gender  $r = 0.915$ , MAT (measuring and evaluating performance)  $r = 0.779$ , Owner/manager's participation (manager/owner responsible for activities),  $r = 0.683$  were the most significant factors observed in decision-making process.

### Conclusion

The findings of this study provide evidence in support of the adoption of the managerial accounting techniques' approach. In particular, the small and medium enterprises in Amman, Jordan need to use this technique to reduce the cost which have significant impact on the competitive advantage to companies and growth of the state economy. Market competition and participation of the owner/manager could be considered to be its core element to the use of managerial accounting techniques to ensure that appropriate decisions are taken to help companies survive through competition. managerial accounting has been used to collect relevant information to address the complex situation in which Amman, Jordan is experiencing internal and external economic crisis. Therefore, the application of management accounting techniques in decision-making in small and medium-sized enterprises in Jordan is indispensable. The adoption of managerial accounting techniques help enterprises expand in light of globalization and failure of some organizations.

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