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Effects of Management Accounting Practices and Performance Measurement on the Perception of Business Performance: Field Study on Organized Industrial Zone of Konya[1]

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Management accounting that is an indispensible part of management function, which is defined as planning, organization, implementation and control of business activities, is one of the greatest helpers of business management in decision-making. For business managers, management accounting techniques has been one of the important tools in establishing strategic goals and achieving those goals. One of the most important tools of enterprises' competitive management approaches is measurement of the enterprises' performances in an environment, where the level of competition on a global scale rises every day and conscious consumer behaviour gets improved. From this perspective, performance management and measurement is important in terms of both following, developing the inner management capability of enterprises and ensuring the compliance of them with the business environment. This research mainly aims to; explore the applications related to performance measurement and management accounting in the enterprises operating in Konya Organized Industrial Zone.

In this context, it is aimed to determine the effects of the

1 This article has been produced from Mustafa İyibildiren's doctoral thesis titled "Use of Managerial Accounting Instruments in Context of Managerial Performance: Balanced Scorecard Application in an Industry Enterprise".

implementation level of the instruments, which are the subject of this research, on the perception towards the business performance. The salient point about the conducted field research is that; a positive significant relationship was determined between usage of those mentioned instruments, performance measurement and the perception towards business performance. In this study, the requirement usage of accounting management tools and performance measurement systems for the enterprises operating in industry, which can be seen as locomotive of the country economy, to improve their performances has been put forward.

Keywords: Management Accounting; Performance Measurement; Business Performance.

JEL Classifications: M40.

Introduction

Enterprises' success and survival in the conditions of increasing competition at the global level is directly related to having performance measurement and evaluation systems, which are effective and in line with strategic goals and objectives for the future. In conjunction with modern business management in recent years, some differences have occurred in the understanding of competition. These differences can be dealt under many dimensions, such as the quality, innovation culture, flexible management/production ability, speed, and originality of the enterprises. In light of all these factors, enterprises have to develop performance-oriented perspectives of competition in terms of effective and efficient use of financial and non-financial resources. The most important administrative problem of the enterprises operating at a high competitive level is the inability of creating performance management that is based on strategic planning. That is the difficulty to determine the achievement level of and the availability of the objectives and expectations. That problem has led to the rapidly growing importance of performance and performance measurement concepts for the enterprises.

Management Accounting

Managers are faced to various problems on enterprise activities almost every day during the period and they take and implement decisions for the solution of those problems. A large part of the data that form the basis of business decisions is obtained from accounting information system. While traditional information systems focus on storage and arrangement of the data in order to meet the demands of the users, that situation reflects an inadequate perspective in terms of current management approach (Kalseth&Cummings, 2001, p. 165).

Changing circumstances encourage accounting systems for making innovations and contributing more to business management. Accordingly, it is clear that the accounting system will be one of the most important helpers of the managers in the dynamic environment of the present and future. Management accounting emerges as one of the developments parallel with those changes that occurred in the accounting system.

Management accounting that is an indispensible part of management function, which is defined as planning, organization, implementation and control of business activities, is one of the greatest helpers of business management in decision-making. Due to the fact that decision-making might be defined as making a choice between options to achieve a result, management accounting has an important role in putting out the situation that occurred in the past through numerical data, making plans for the future, and performing the control function through comparing the planned and actual results (Ergin & Elmacı, 2015, p. 39).

Management accounting is an information system, which forms the whole accounting process that puts the business managers to the focal point, having an area from the collection of information as raw data to preparing a report to fit the requirement (Büyükmirza, 2015, p. 29). Management accounting professionals take over important tasks in analysing the information systems; developing and using that system in line with the business goals. New management approaches in enterprises, are put forward on the basis of data obtained from the management accounting information system (Cerulo, Wilkinson, Raval, & Wong-On-Wing, 2000, p. 8).

Communication systems before 1980 being less developed than those of today and the barriers such as differences between geographies led the enterprises to the goal of achieving profitability in their local markets and are they aimed to protect their competitive advantages. Therefore, the enterprises became less focused on the concepts such as efficiency, managerial development, cost reduction, customer focus, quality and innovation (Bhimani, Horngren, Datar, & Foster, 2008, p. 14-17). Change in business operations and processes has shaped the change in management accounting, as well. The reasons in the recent years such as usage of advanced production technology, the intensification of global competition and the recessions of the economies etc. has differentiated and diversified the information that the managers need for find a solution to those problems (Clarke & Tagore, 2002, p. 10). Rapid change in technology, the use of new production techniques and the developments in management systems; have led to the design of new management accounting methods focusing on Total Quality Management, just-in-time purchasing and production, distribution systems, logistics and never ending research for providing competitive advantage (Kaplan & Atkinson, 2013, p. 9). Recently, management accounting has focused on the concept of value creating. Innovation process is dealt through the goal of customer and shareholder value creation, and effective use of resources is provided. In this context, financial and non-financial performance evaluation tools are used for the implementation of the strategies developed and for the evaluation of the results of the implementations.

For business managers, management accounting techniques has been one of the important tools in establishing strategic goals and achieving those goals. Basically, management accounting has played a role responsible for the preparation of business strategy and the related implementation plans, definition, measurement of collection of the financial information used in business, -briefly, production of information needed for strategic decision making and appropriate use of business resources (Srikanth & Humble 1997, p. 25).

Performance Measurement

According to the modern business management approach, performance measurement and management plays a very important role in today's competitive business environment, which is characterized by scarcity of resources. To succeed in global competition, enterprises have to realise adaptation behaviour by closing the gap between the enterprise and the environmental elements through working to increase their productivity and performance (Kádárová, Durkáčová, Teplická, & Kádár, 2015, p. 1503). Also, they have to demonstrate organisational innovation focused growth and development behaviour, while ensuring strategic alignment. One of the most important tools of enterprises' competitive management approaches is measurement of the enterprises' performances in an environment, where the level of competition on a global scale rises every day and conscious consumer behaviour gets improved. From this perspective, performance management and measurement is important in terms of both following, developing the inner management capability of enterprises and ensuring the compliance of them with the business environment.

In modern business management approach, recently there are also some differences in the understanding of competition. These differences can be dealt under many dimensions such as the quality, innovative culture, flexible management/production ability, speed and originality of the enterprises. In light of all these factors, enterprises have to develop competitive performance-oriented perspective in terms of the effective and efficient use of financial and non-financial resources (Akgemci & Güleş, 2009, p. 115).

The most important administrative problem of the enterprises operating at a high competitive level is the inability of realising a performance management that is based on strategic planning. Mainly, performance management involves planning and managing business resources, in accordance with pre-determined performance goals, collecting business data regularly and monitoring and assessing the process on business goals (Sujova, Rajnoha, & Merková, 2014, p. 276).

Performance management is most related the function of planning and control among the management functions (planning, organizing, directing, coordination and control). For taking more proper organizational decisions, the existence of a performance measurement system is required in order to see and understand whether and how the enterprise progresses towards the intended direction –that is fulfilling the control function- , as well as deriving providing timely data.

Performance Measurement in Enterprises

When assessing the performance of an enterprise, emerging financial results are the first to attract attention. The first indicator of success of an enterprise, regardless of its size, is its financial performance. Performance measures based on accounting data, is related to "final operational performance" rather than "relative business performance". In this way, those performance measures are used in evaluating the final performance of the enterprise as a whole. Those measures at the same time provides an opportunity for the assessment of the performance of middle and lower level managers, whose responsibility is limited to only a single partition or place of production (Çelik O., 2002, p. 5).

Financial performance measurement methods are widely used in measuring the performance of enterprises because they give accurate and objective results. However, it is suggested that due to the recent developments financial performance measurement methods are inadequate at various points (Kaplan & Norton, 1996b, p. 23-24). As a result of the changing competitive environment and the improvements in manufacturing methods, the enterprises have begun to give importance to non-financial issues such as quality, flexibility, timely delivery, customer satisfaction, and employee involvement; in addition to financial objectives such as cost reduction, profit maximization in order to gain and maintain a competitive advantage.

A Research on the Effects of Management Accounting and Performance Measurement Practices

Aim of the Study

This research mainly aims to; explore the applications related to performance measurement and management accounting in the enterprises operating in Konya Organized Industrial Zone. In this context, it is aimed to determine the effects of the implementation level of the instruments, which are the subject of this research, on the perception towards the business performance.

Definition of the Data Sets Subject to the Research

A study was conducted on the enterprises operating in Konya Organized Industrial Zone, in order to determine the application level of the management accounting instruments. 385 enterprises in Konya, O.I.Z. constitute the sample. In the scope of the research, 220 enterprises were determined as the sample according to 95% confidence level and 5% margin of error. 220 enterprises were dealt, 140 companies returned and a participation level of approximately 64% was obtained to form the data set.

Testing the Hypothesis of the Research

In this part, the relationships between usage of the instruments of management accounting, performance measurement and importance level of performance scorecard among the variables to be effective on the perception towards the business performance, will be examined. The hypotheses established to determine the relationships between the variables will be tested by regression analysis. Additionally, correlation analysis and regression analysis outputs will be used in order to test the harmony of the variables with each other, their capacity of explaining each other, and the statistical significance of the variables and the model. In this context, the conceptual model discussed and tested on the hypotheses might be summarized as follows:

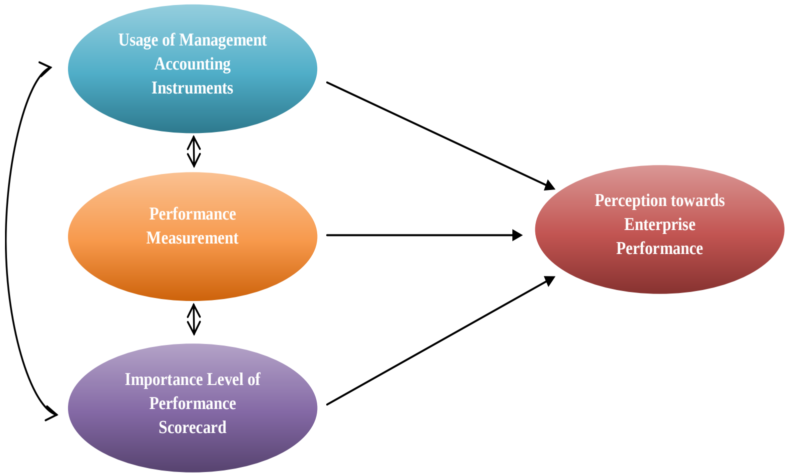

Figure 4.1. Research Model

In the study, it was analysed through scatter diagram on SPSS in order to see whether there is a linear relationship between the independent variable taken dimensions of usage of management accounting instruments, performance measurement and performance scorecard perception and the dependent variable of the perception towards enterprise performance. It was determined that there is a linear relationship between the independent variables and the dependent variable; Pearson's correlation coefficients between the variables were calculated, and then linear (enter) regression analysis technique was applied and the results were described. In the study, the level of significance was accepted as 0.05.

Ho: The variables of use of management accounting, performance measurement, and importance of performance scorecard are not significant in explaining the perception towards business performance.

H1: The variables of use of management accounting, performance measurement, and importance of performance scorecard are significant in explaining the perception towards business performance.

The correlation analysis made in order to measure the level of the relationship between the research variables is summarized in Table 4.1:

Table 4.1. Correlation Analysis Results

		UMAI	**PM**	**ILPS**	**BPP**
UMAI	Pearson Correlation	1	0,771**	0,235**	0,658**
	P		0,000	0,005	0,000
	N	140	140	140	140
PM	Pearson Correlation n	0,771**	1	0,406**	0,617**
	P	0,000		0,000	0,000
	N	140	140	140	140
ILPS	Pearson Correlation	0,235**	0,406**	1	0,270**
	P	0,005	0,000		0,001
	N	140	140	140	140
BPP	Pearson Correlation	0,658**	0,617**	0,270**	1
	P	0,000	0,000	0,001	
	N	140	140	140	140
** Correlation is significant at the 0.01 level (2-tailed).					
UMAI: Usage of Management Accounting Instruments					

PM: Performance Measurement
ILPS: Importance Level of Performance Scorecard
BPP: Business Performance Perception

When Table 4.1. is observed, a middle level significant positive relationship is seen between the variables. When the interaction between the research variables is examined, a positive middle level relationship is seen between usage of management accounting instruments, and the perception of business performance. In addition, there is a positive middle level relationship between the perception of business performance and performance measurement. In terms of the relationship between performance scorecard importance level and perception towards business performance, there is a positive relationship, however it is seen not be as strong as the one for the other variables.

Table 4.2. ANOVA test results

ANOVA					
Model	Sum of Squares	df	Mean Squares	F	p
Regression	27,704	3	9,235	39,644	0,000
Missing	31,68	136	0,233		
Total	59,383	139			
Dependent Variable: BPP					
Predictors: (Constant), ILPS, UMAI, PM					

When the ANOVA table is examined, due to the F value being 39.644 and p-value 0.000; the hypothesis Ho is rejected. Accordingly, the regression model generated is statistically significant in general. Therefore, it is possible to statistically predict the perception towards business performance through at least one of the variables among the use of management accounting instruments, performance measurement and performance scorecard.

Table 4.3. Table of Coefficients

Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients	t	p
	B	Std. Error	Beta		
(Constant)	1,513	0,627		2,413	0,017
UMAI	0,473	0,101	0,462	4,661	0,000
PM	0,242	0,109	0,234	2,221	0,028
ILPS	0,137	0,144	0,066	0,950	0,344
Dependent Variable: BPP					

If Table 4.3. is examined, the variable of performance scorecard importance level is seen not to be statistically significant due to p-value being greater than 0.05. The other variables –performance measurement and usage of management accounting instruments are statistically significant in explaining the variable of perception towards business performance, because p-values are less than 0.05.
Perception of business performance = 1,513 + 0,473 UMAI + 0,242 PM

Table 4.4. Regression Explanatory Table (Model)

Model				
Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
1	0,683	0,467	0,455	0,48264
Predictors: (Constant), ILPS, UMAI, PM				
Dependent Variable: BPP				

R and R2 values on Table 4.4. illustrate the explanatory power of the model. According to the regression analysis performed, the rate of usage of management accounting instruments, performance measurement and performance scorecard to explain the perception towards business performance was found to be 45%. Moreover, when the table of coefficients is examined, the greatest contribution to that explanatory is observed to be provided by the variable of usage of management accounting instruments.

Conclusions

Understanding of profitability and productivity being affected by rapidly changing business conditions, create an intense competitive pressure on the enterprises. Additionally, that competition forces the managerial responses for realising rapid technological changes to be provided in place, timely and accurately. Enterprises that are aware of that requirement have to take advantage of strategic cost and management tools in order to increase their profitability and competitiveness. Management accounting serves for that purpose.

While in the past the data obtained from the financial accounting information system was used within the scope of the analysis on management accounting, the traditional approaches became unable to carry the enterprises towards their strategic goals. Especially the assessment that the control systems based on financial measures had significant shortcomings in considering non-financial measures, has led to a need for new criteria.

The salient point about the conducted field research is that; a positive significant relationship was determined between usage of those mentioned instruments, performance measurement and the perception towards business performance. As a result of the regression analysis in scope of the research performed, explanatory rate of usage of management accounting instruments, performance measurement, and importance level of performance scoreboard on the perception towards business performance was found to be approximately 45%.

In this study, the requirement usage of accounting management tools and performance measurement systems for the enterprises operating in industry, which can be seen as locomotive of the country economy, to improve their performances has been put forward.

References

[1]. Akal, Z. (2002). İşletmelerde Performans Ölçüm ve Denetimi: Çok Yönlü Performans Göstergeleri. Ankara: Milli Prodüktivite Merkezi Yayınları.

[2]. Akgemci, T., & Güleş, H. K. (2009). İşletmelerde Stratejik Yönetim. Ankara: Gazi Kitabevi.

[3]. Altuğ, O. (2006). Maliyet Muhasebesi (14. Baskı b.). İstanbul: Türkmen Kitabevi.

[4]. Atkinson, A. A., Balakrishnan, R., Booth, P., Cote, J. M., Groot, T., Malmi, T., . . . Wu, A. (1997). New Directions in Management Accounting Research. Journal of Management Accounting Research, Volume:9, 79-108.

[5]. Bhimani, A., Horngren, C. T., Datar, S. M., & Foster, G. (2008). Management and Cost Accounting (4th Edition b.). UK: Prentice Hall.

[6]. Birnberg, J. G., & Shields, J. F. (1989). Three Decades of Behavioral Accounting Research: A Search For Order. Behavioral Research in Accounting, Volume 1.

[7]. Bourne, M., Milss, J., Wilcox, M., Neely, A., & Platts, K. (2000). Designing, Implementing and Updating Performance Measurement Systems. International Journal of Operations and Production Managenemt, 20(7), 754-771.

[8]. Büyükmirza, K. (2015). Maliyet ve Yönetim Muhasebesi (20. Baskı b.). Ankara: Gazi Kitabevi.

[9]. Can, H., Tuncer, D., & Ayhan, Y. (2001). Genel İşletmecilik Bilgileri. Ankara: Siyasal Kitabevi.

[10].Cerulo, M. J., Wilkinson, J. W., Raval, V., & Wong-On-Wing, B. (2000). Accounting Information Systems: Essential Concepts and Applications (Forth Edition b.). New York: John Wiley&Sons Inc.

[11]. Clarke, P., & Tagoe, N. (2002, December). Strategic Management Accounting - Do We Need It? Accountancy Ireland, Volume 34(Issue 6).

[12].Çelik, O. (2002, Mart). İşletmelerde Bir Performans Ölçütü Olarak Ekonomik Katma Değer (EKD) ve Türk Telekom A.Ş.'de Uygulanması. Muhasebe Bilim Dünyası Dergisi, Cilt:4(Sayı:1), 21-55.

[13]. Demirkaya, H. (2000). Performans Ölçüm Rehberi. Sayıştay Yayın İşleri Müdürlüğü.

[14]. Dinçer, Ö. (2003). Stratejik Yönetim ve İşletme Politikası (6. Basım b.). İstanbul: Beta Yayınları.

[15]. Drury, C. (2007). Management and Cost Accounting (7th Edition b.). U.K.: Cengage Learning.

[16]. Efe, Ş. (2012, Ekim-Aralık). Kamuda Stratejik Planlamaya Dayalı Performans Yönetimi: Türkiye Uygulaması ve Sorunlar. Sayıştay Dergisi(87), 121-142.

[17]. Eldenburg, L. G., & Wolcott, S. K. (2004). Cost Management: Measuring, Monitoring, and Motivating Performance. USA: John Wiley.

[18]. Ergin, H., & Elmacı, O. (2015). Maliyet ve Yönetim Muhasebesinde Yeni Açılımlar: Stratejik Yönetim Muhasebesi. Dumlupınar Üniversitesi Sosyal Bilimler Dergisi(3(3)), 17-50.

[19]. Harrigton, H. (1996). Total Improvement Management,The Next Generation in Performrmance Improvement. London: Ernst and Young Publications.

[20]. Islam, M., & Kantor, J. (2005). The Development of Quality Management Accounting Practices in China. Managerial Auditing Journal, Volume 20(Issue 7), 707-724.

[21]. Kádárová, J., Durkáčová, M., Teplická, K., & Kádár, G. (2015). The Proposal of an Innovative Integrated BSC – DEA Model. Procedia Economics and Finance, 23, 1503-1508.

[22]. Morse, D., Zimmerman, J. L., & Holmen, J. S. (1997). Managerial Accounting. USA: McGraw-Hill.

[23]. Mucuk, İ. (2008). Modern İşletmecilik (16 b.). İstanbul: Türkmen Kiktabevi.

[24]. OECD. (1997). In Search of Results Performance Management Practices. Paris: OECD.

[25]. Palmer, R. J. (1992). Strategic Goals and Objectives and the Design of Strategic Management. Advances in Management Accounting, Volume: 1(No: 1), 179-204.

[26]. Schiff, C. (2010). Business Performance Management in 2010. http://www.b-eye-network.com/view/12282.

[27]. Srikanth, M. L., & Umble, M. M. (1997). Synchronous Management: Profit-Based Manufacturing for the 21st Century. Wallingford: Spectrum Pub Co.

[28]. Sujova, A., Rajnoha, R., & Merková, M. (2014). Business process performance management principles used in Slovak enterprises. Procedia - Social and Behavioral Sciences, 109, 276-280.

[29]. Tunçer, P. (2013, Ocak-Mart). Örgütlerde Performans Değerlendirme ve Motivasyon. Sayıştay Dergisi(88), s. 87-108.