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Managers' Participation in Budgets Affects Financial Performance: Research at Manufacturing Enterprises in Hanoi

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Abstract

Every manufacturing enterprise in Hanoi needs to make changes to adapt to global competition and move towards sustainable development. At that time, administrators need management tools to help them have more information to make appropriate decisions. One of the most widely used management tools is production and business estimates. In order for a business estimate to properly perform its role, it will also be affected by many factors, not the least of which is the level of participation of the administrator in the

estimating process. The author collected data at 125 manufacturing enterprises in Hanoi and used SPSS software to determine the impact of managers' participation in the budgeting process on the financial performance of manufacturing enterprises in Hanoi. The results show that the level of participation of managers in the budgeting process has a positive impact on the financial performance of the enterprise.

Keywords: Manager, Budget, Financial Performance

1. Introduction

According to the economic development orientation to 2030, Hanoi will increase support for businesses in building brands, management systems, technology transfer, scientific research, and training human resources to help businesses in the area increase productivity, quality, lower product costs, and improve designs. In particular, Hanoi promotes trade and investment promotion activities and supports businesses producing key technology products to participate in the global production and supply chain. On the part of manufacturing enterprises in Hanoi, they have proactively built production plans, proactively sourced input materials and planned product consumption in each specific period. Results in 2022 show a number of industries achieving high increases compared to the same period last year: Beverage production increased by 27%; Motor vehicle production increased by 22.6%; Chemical and chemical product production increased by 22%; Production of electronic equipment, computers and optical products increased by 21%; Production of paper and paper products increased by 16.4%; Wood processing and wood product production increased by 15%; Apparel production increased by 14.9%; Tobacco product production increased by 14.6%. In the context of receiving a lot of support from the government, each business needs to make changes to adapt to global competition and move towards sustainable development. Managers need management tools to help them have more information to make appropriate decisions.

One of the most widely used management accounting techniques is production and business estimation. A budget is a detailed plan that describes the use of an organization's resources over a certain period of time. This is a means for managers to determine the future goals of the business or reflects department managers' grasp of the business's goals. Many managers also use estimates as a basis for planning to use resources in departments and organizations in the most effective way. In addition, the estimate shows provisions in case of difficulties, unusual events and solutions of the business management board. It can be said that an estimate is a comprehensive tool that meets many functions of managers. Although business estimates have been researched and put into use in businesses very early, up to now, production and business estimates are still a tool that administrators choose to use regularly and bring high efficiency in providing information. This comes from the fact that budgeting does not require consuming a lot of business resources but still meets the management functions of managers. There are many methods for budgeting, depending on the level of involvement of managers in the process. In fact, at home and abroad, there have been many studies on the importance of budgets to the financial performance of businesses. In order for a business budget to properly perform its role, it will also be affected by many factors, not the least of which is the level of participation of the manager in the estimating process.

This article aims to understand the impact of managers' participation in the budgeting process on the financial performance of

businesses in Hanoi. Thereby, we provide suggestions to help businesses operate effectively in today's unpredictable competitive environment in the highly competitive market.

2. Literature Review

2.1 Manager's Participation in the Budget

According to Drury (2000) ^[3], production and business budgeting were frequently used tools in corporate governance, with functions such as planning, coordinating activities, communicating, controlling, evaluating results, and motivating workers. Kenis (1979) ^[8] argued that managers' participation in production and business budgets depends on the extent to which they participate in setting budgeting goals in the department for which they are responsible and their influence on these goals. When managers are widely involved in the goals of the estimate in the department they manage, the estimate is more feasible and the role of estimates in providing information and controlling operations will be more effective. This is explained by the reason that the direct manager is the person who is most knowledgeable about the operations of the department they manage. In other words, the participation of managers in production and business budgets is the delegation and decentralization of administrators to perform the basic functions of budgeting such as planning, checking, and control. According to Dunk (1993) ^[4], he pointed out that department managers' high involvement in the budgeting process will facilitate them to lower budgeting goals to make them easier to implement. On the contrary, in a previous study, Kenis (1979) ^[8] argued that if department managers are heavily involved in department estimates, it will increase job satisfaction and create work motivation.

2.2 Financial Performance of the Enterprise

Business performance can be described as a summary of the achievements of a business or department. The business performance results of an enterprise are expressed by a system of measurement indicators. Based on the assessment of operating results, businesses can clearly understand the current status of their business operations and financial potential, and make necessary adjustments to improve business performance in the future. Hult *et al.* (2008) ^[5] stated that there are two types of performance results used: financial performance and operational performance. According to Hult *et al.* (2008) ^[5], financial results are the operating results of an enterprise reflected through the financial indicators of the enterprise. Normally, to measure financial results, the most popular are revenue targets (44%) and profit ratio on total assets - ROA (40%); The most popular way to measure performance is market share (47%); And to measure aggregate results, the most popular indicator is reputation (30%). Hult *et al.* also reported that 44.8% of studies focused on using and surveying data at the enterprise level and using financial indicators to measure enterprise performance. Kaplan *et al.* (1998) ^[7] argued that using financial results to evaluate a business's performance comes with objectivity and convenience. Financial indicators are provided from accounting records and always comply with accounting principles.

2.3 The Impact of Managers' Participation in the Budget on the Financial Performance of the Enterprise

Jamil (2015) ^[6] pointed out that the level of manager participation in the budget has a great impact on business

performance. Kenis (1979) ^[8] researched manufacturing enterprises in Philadelphia, and the results showed that the higher the level of participation in the administrator's budget, the better the results of budget implementation, motivation from the budget, and managers' job satisfaction. Brownell *et al.*, in a 1986 study, suggested that the level of manager involvement in estimating has a close relationship with the estimating process applied in businesses. When the budget is prepared using the imposed method, the level of participation in the budget by departmental managers is very low. When the budget is prepared from the bottom up, department managers are heavily involved in setting the budget's goals. Mia (1989) ^[10] surveyed businesses in New Zealand, showing that the higher the level of manager participation in budgeting, the better the manager's performance. Chong (2002) ^[2] also confirmed that managers' participation in estimates has a positive impact on the business results of the enterprise. In a study in China by Lu (2011) ^[9], the results showed that the level of manager participation in the budget is a characteristic aspect of production and business budgets. This feature of the budget will indirectly contribute to increasing the business results of the enterprise through the manager's understanding of the budget.

Milani (1975) ^[11] pointed out that the level of participation of managers in the budget is measured through factors, including the level of participation in goal-setting activities, the appropriateness of budget adjustments made by upper management, how often they are consulted by superiors, the degree of influence the department manager has on the final budget, the importance of comments from department managers, and the frequency of input from department managers.

In fact, budgets are management tools built and used by managers, so the effectiveness of estimates depends on the manager's role in budgeting. Therefore, in studies on the impact of budgets on business performance, research on the level of managers' participation in the budget is a prominent study. Therefore, the following hypothesis was proposed: Managers' participation in the budget positively affects the financial performance of the enterprise.

3. Research Method

With the goal of researching the impact of the level of management participation in the budget on the financial performance of manufacturing enterprises in Hanoi, the author used quantitative research. The author analyzed data on SPSS 22 software using the following tools: Testing the reliability of the scale using Cronbach's Alpha; EFA exploratory factor analysis; Correlation analysis; and regression analysis.

Data for the study was collected within 3 months from January 1, 2023 - March 31, 2023. The author then began to classify and clean the data. In the end, 125 survey forms were retained while 15 survey forms were invalid. The author built a questionnaire on Google Forms, sent it to accountants and business managers via email using a convenient sampling method, and send it to friends, relatives, and partners.

Based on various studies conducted previously, a number of variables were applied in this study to measure the influence of the level of manager involvement in the budget on the financial performance of the enterprise. The level of manager participation in the budget has been accepted as an

independent variable with four observed variables (Qi, 2010) [13]: the extent of manager participation in the budget, manager influence on the budget, the manager's role in the budget, and the frequency of manager input in budgeting. Financial performance is the dependent variable with three observed variables (Qi, 2010; Wijewardena and Dezoysa, 2004) [13, 12]: revenue growth, asset index, and profitability index.

Table 1: Scale description table

S. No	Factor	Code	No. Variables
1	PB (Participation Budget)	PB	4
4	EP (Financial Performance)	EP	3

4. Results

4.1 Descriptive Analysis

Regarding the type of business: There are 82 companies (accounting for 65.6%) that are joint stock companies and 43 companies (accounting for 34.4%) are limited liability companies. Regarding the scale of business capital: There are 90 companies (accounting for 72%) with business capital of less than 20 billion VND, 27 companies (accounting for 21.6%) with business capital from 20 to 100 billion VND and 08 companies (accounting for 6.4%)

surveyed had business capital exceeding 100 billion VND. Regarding the size of the number of employees, there are 16 companies (accounting for 12.8%) with less than 10 employees, 70 companies (accounting for 56%) with employees from 10 to 200 people, and 24 companies (accounting for 19.2%). has a workforce of 200–300 people, and 15 companies (accounting for 12%) have a workforce of over 300 people.

Table 2: Characteristics of surveyed enterprises

Characteristics		N = 125	Percentage (%)
Type	Joint Stock Company	82	65.6
	Limited liability company	43	34.4
Number of employees	< 10 persons	16	12.8
	10- 200 persons	70	56.0
	200-300 persons	24	19.2
	> 300 persons	15	12.0
Capital	< 20 billion VND	90	72.0
	20 – 100 billion VND	27	21.6
	> 100 billion VND	8	6.4

4.2 Evaluate the Reliability of the Scale

The authors used Cronbach's Alpha coefficient to measure the reliability of the scale for the dependent and independent variables.

Table 3: Reliability Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Cronbach's Alpha =.741				
PB 1	11.84	2.506	.542	.677
PB 2	11.84	2.571	.424	.745
PB 3	11.80	2.323	.600	.642
PB 4	11.75	2.414	.578	.657
Cronbach's Alpha =.759				
EP 1	7.39	.805	.641	.619
EP 2	7.41	.856	.522	.755
EP 3	7.41	.840	.611	.655

The analysis results of the independent variable (administrator participation in the budgeting process) show that the Cronbach's Alpha coefficient of the scale is 0.741 > 0.6, the total correlation coefficients of the observed variables in the scale are all greater than 0.3 and there is no case of eliminating observed variables that can make the Cronbach's Alpha of this scale greater than 0.741. The analysis results of the dependent variable (financial performance) show that the Cronbach's Alpha coefficient of the scale is 0.759 > 0.6, the total correlation coefficients of observed variables in the scale are all greater than 0.3 and there is no case of eliminating observed variables that can make Cronbach's Alpha of this scale greater than 0.759. Therefore, all observed variables are accepted and will be used in the next factor analysis.

4.3 Exploratory Factor Analysis

KMO coefficient = 0.716 > 0.05 proves that the study has enough observed variables to constitute a factor. Significance level Sig.=0.000 < 0.05% shows that the Barlett test is statistically significant and shows that factor analysis is appropriate.

Table 4: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.716	
Bartlett's Test of Sphericity	Approx. Chi-Square	115.954
	df	6
	Sig.	.000

The analysis results in Table 5 show that there is a factor extracted at eigenvalue equal to 2.269 > 1. This factor explains 56.718% of the data variation of the 4 observed variables participating in EFA.

Table 5: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.269	56.718	56.718	2.269	56.718	56.718
2	.807	20.172	76.891			
3	.514	12.858	89.749			
4	.410	10.251	100.000			

The results of the rotated matrix show that 4 observed variables are classified into 1 factor, all observed variables have factor loading coefficients greater than 0.5, and there are no longer any bad variables. The result of extracting only one factor is good, meaning that the scale of the independent variable ensures unidirectionality and the observed variables of the independent variable converge quite well.

Table 6: Component Matrix^a

	Component
	1
PB3	.811
PB4	.780
PB1	.768
PB2	.642

4.4 Multivariate Regression Analysis

Table 7: Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.402 ^a	.162	.155	.39652	1.520

A commonly used measure of the fit of a linear regression model is the coefficient of determination R² (R square). The coefficient R² = 0.162 shows that the level of participation of managers in the budgeting process can explain 16.2% of the total impact of factors on financial performance in manufacturing enterprises in Hanoi. Table 7 results also provide the Durbin–Watson value to evaluate the phenomenon of first-order serial autocorrelation. DW value = 1.520, within the range of 1.5 to 2.5, so the result does not violate the assumption of first-order serial autocorrelation. The ANOVA table gives the F-test results to evaluate the hypothesis about the appropriateness of the regression model. Testing the hypothesis about the overall fit of the model, F value = 23.744 with sig. = 0.000 < 5%. Prove that the R-squared of the population is different from 0. This means that the built linear regression model is suitable for the population.

Table 8: ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	3.733	1	3.733	23.744	.000 ^b
	Residual	19.339	123	.157		
	Total	23.072	124			

Table 9: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.338	.282		8.289	.000
	PB	.346	.071	.402	4.873	.000

The results in Table 9 show that the values in column Sig. are all <5%, proving that the independent variables have a statistically significant impact on the dependent variable. The linear regression model reflects the level of impact of the following factors: EP = 0.402*PB.

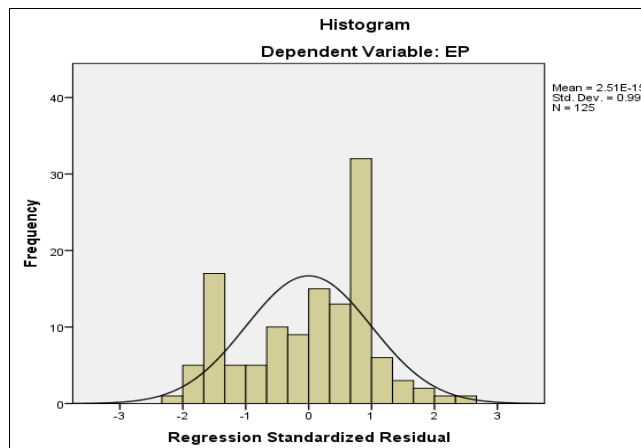


Fig 1: Histogram of normalized residual frequencies

For the Histogram chart, if the mean value Mean is close to 0, the standard deviation Std. Dev is close to 1, the columns of residual values are distributed in a bell shape, we can confirm that the distribution is approximately normal, assuming the normal distribution of residuals is not violated. Specifically in Fig 1, Mean = 2.51E-15 = 2.51 * 10⁻¹⁵ = 0.00000... is close to 0, the standard deviation is 0.996, close to 1. Thus, it can be said that the residual distribution is approximately normal, the assumption of normal distribution of residuals is not violated.

5. Conclusion

The results of univariate linear regression analysis have accepted the hypothesis that managers participation in the budget positively affects the financial performance of the enterprise. Managers' participation in the budgeting process has a positive influence, with Beta = 0.402. A 1-point increase in manager participation in the budgeting process will increase the business's financial performance by 0.402 points. If the manager is heavily involved in budgeting (including the extent of the manager's involvement in the budget, the manager's influence on the budget, the manager's role in the budget, and the frequency of comments from managers on budgeting), this is a factor that positively affects the financial performance of manufacturing enterprises in Hanoi. This result is similar to the research results of Kenis (1979) [8]. Kenis said that managers' participation in estimates has a positive impact on business operations because it increases the feasibility of estimates and, at the same time, increases the satisfaction of department managers because they feel respected. Research results have confirmed that when managers are more involved in budgeting, it will increase the financial efficiency of the business. On that basis, the authors propose to increase the level of participation in the budgeting process of managers at manufacturing enterprises in Hanoi. Senior managers should consider a bottom-up budgeting approach that allows department-level managers to be proactive in determining budget targets for the departments they manage. During the budget implementation process, if adjustments are needed, senior managers should also get opinions from department-level managers. When department managers are involved in the budgeting process, budgets tend to be more reliable and effective. Department-level managers promote their own department's goals and the frequency of giving

managers' opinions in budgeting is high, so they will be more proactive, more comfortable and more likely to succeed because the budget has their participation, not goals imposed from above.

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