

Research Factors Affecting the Establishment of Budget Estimation of Small And Medium Commercial Enterprises - A Case Study in Ho Chi Minh City, Vietnam

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Abstract

In this paper, qualitative and quantitative methods (descriptive statistics, Cronbach's Alpha test, extraction variance test and multiple regression) have been applied in the study of factors affecting the establishment of budget estimation of small and medium commercial enterprises in Ho Chi Minh City. 8 factors affecting the process of building budget estimation of commercial enterprises in Ho Chi Minh City have been identified based on the results of qualitative research. Quantitative research was conducted with 302 questionnaires for 8 independent variables with 4-6 scales for each variable. Survey results of experts, testing hypotheses by evaluating the reliability of each scale and survey data, testing the factor analysis model and explaining the observed variables shows 8 factors. There is a close correlation with the construction of budget estimation for SMEs in HCMC. The variables are positively related to the dependent variable budget estimation. Multiple regression results allow to arrange the influence of factors on establishing budget estimation in small and medium enterprises in Ho Chi Minh City in the following order: Leadership point of view> Human resources> Infrastructure> Accounting organization> Estimating process> Enterprise size> Policy regime> Business characteristics.

Keywords: Influencing Factors, Small and Medium Commercial Enterprises, Qualitative Method, Quantitative Method, Multiple Regression Model.

Introduction

Budget estimation helps to detail the goals of the organization, helps managers make the right strategic decisions, in order to achieve the short- and long-term development goals of the business. Good construction of budget estimation both motivates enterprises to comply with the set schedule, well controls the targets to be achieved and uses the available resources of the unit effectively, and is ready to deal with risks in business. However, in Vietnam, the construction of budget estimation in enterprises has not been focused properly. Organizations, especially commercial enterprises mainly plan the company's annual activities based on the business results of the previous year, but have not seen the development trend of the industry as well as the general context of the economy.

The importance of budget estimation: Building budget estimation is the only process that quantifies the vision and management strategy, only when the managers, participants in estimating budget realize that the thinking process is more important than the numbers themselves, their budgets and benefits will be sufficient (Banović, 2005). Budget estimation's primary role is to serve the planning and monitoring of business operations. Through that, managers can achieve the goal of business is to maximize profits (Barbara & Tabachnick, 2020). According to Langfiel-Smith et al (2009), budget estimation has five main functions: planning, coordination, information communication, control and evaluation. The importance of budget estimation is also reflected in the purpose of this work. The purpose of budget estimation is to plan the activities of enterprises in the future in order to ensure that the activities of enterprises are completed in the best way to achieve the goals; coordinate departments; communicate; allocate resource; perform evaluation; allocate responsibility; set goals; motivate employees and help employees to have an overall perception of the enterprise, to understand how their work contributes to the success of the enterprise (Drury, 2004). Hung, (2016), confirms that the success of a budget depends greatly on how to build the budget. Budget estimation is successful in case of maximum support from key managers, when senior managers consider budget estimation as one of the company's important activities and how they use it.

Factors affecting the results of establishing budget estimation. In the majority of studies Banović, (2005); Srbinoska, (2018); Qi, (2010); Hang (2016); Keiser (1974); Thu (2005); Trang (2018) qualitative and quantitative research methods were applied in assessing the factors affecting the results of establishment of budget estimation. Banović, (2005) pointed out the main factors affecting the construction of the budget include: information technology (IT), business size, strategy, organizational structure, operating environment and organizational culture. While Srbinoska (2018) determines the scale, IT and strategy are the factors affecting the establishment of the budget. Faleti & Myrick (2012) said that the process of establishing budget estimation is very important so that businesses can build budget to serve their production and business activities and the author has discovered factors such as firm size, participation in establishing budget estimation, ownership structure influence the process of establishing and controlling budget estimation in Nigeria. Research on the impact of budget estimation on the performance of small and medium enterprises in China- Qi (2010) has shown two factors that strongly influence the establishment of budget estimation in China, namely size of enterprises and type of business.

Researches on budget estimation have received more attention in recent years in Vietnam. Hang (2016), gave a theoretical research model of factors affecting small and medium enterprises' budget estimation, including human resources, process of establishing budget estimation, facilities, and government policies, organize the accounting work and control the

budget creation process. According to Hai (2017); Keiser (1974), 6 factors include human resources, facilities, accounting work at enterprises, budget implementation process, government legal policies and regimes, characteristics of small and medium enterprises. All of them have a proportional influence on the establishment of natural resources in Binh Phuoc province. Liem (2018) based on the survey results of more than 200 enterprises in the Ho Chi Minh City, found out the factors affecting the budget process, including ownership structure, leadership style, IT application in accounting cooperation, company size, and employee participation budget estimation. Phuong (2017) commented among the factors of competition, decentralization of management, qualification of accountants, IT application in creating budget, production technology, the competitive factors and qualification of accountants are the most important factors to improve the application of budget creation in enterprises in Gia Lai province. Hung (2016) using research methods such as testing and applying the factor model to explore the factors affecting the efficiency of business budget tools has shown two factors that play a role, they are the participation of employees and the opinion of the administrator. For the establishment of budget in enterprises in Da Nang city, the factors affecting competition, decentralization of management, qualification of accountants, IT application were quantitative researched by (Quyen, 2015). The test results give the regression model as: $Y = 0.289X_1 + 0.187X_2 + 0.251X_3 + 0.197X_4 + \zeta$. In which: (Y) level of application of budget tools, (X1) competition, (X2) accounting staff qualifications, (X3) management decentralization, (X4) IT application in generating budget. Trang (2018) has identified the impact level of each factor in the construction of budget of enterprises in Quang Binh province and proposed the following model: Budget Estimation (BE) = 0.427SP + 0.185CE + 0.146DM + 0.207F. In which, four factors impacting strategic plans (SP), capacity to estimate budget (CE), decentralized management (DM) and facilities (F) were surveyed.

From the reference documents, the factors affecting the establishment of budget estimation in small and medium enterprises are concerned. In Vietnam in recent years (from 2015) there are many researches on this issue. However, research results of authors from many different countries lead to mixed conclusions about the influencing factors. The cause of this difference stems from the characteristics of the company, working environment, the development as well as the limitations in the research method as the number of samples is small (Keiser, 1974; Quyen, 2015). Overseas, firm size is considered the most influential factor (Srbinska, 2018; Qi, 2010). Larger and more diversified firms tend to use budgets more sophisticatedly and efficiently than small firms (Banović, 2005). Second is the infrastructure factor and IT that are regularly used to gather the individual budget estimation, unified and presented at the organizational level (Banović, 2005; Srbinska, 2018). Companies with good technology facilities often focus on establishing budget rather than companies with rudimentary technology (Banović, 2005). Small companies often do not establish budget but conduct direct supervision and personal interaction, with little strategy (Qi, 2010).

National studies show that the authors have discovered and measured the factors that influence budget estimation development, including: 1) leadership opinion; 2) facilities, 3) human resources, 4) organizational accounting, 5) business characteristics, 6) policy regime, 7) estimation process, 8) enterprise size, 9) ownership structure and 10) competition. In which, competitive factors (Phuong, 2017; Quyen, 2015), accountant qualifications (Phuong, 2017), employee participation and managers' opinion Loi (2007), decentralization of management (Quyen, 2015), strategic planning Trang (2018) are the factors playing an important role in the process of building budget for businesses. Thus, in Vietnam, human-

related factors play an important role in establishing budget, while in other countries, enterprise size and IT application are considered as the most influential factors.

This paper sets the following objectives:

- *To detect* the factors that affect the budget estimating construction of small and medium sized commercial enterprises in Ho Chi Minh City by statistical method.
- *To measure* the impacting level of each identified factor to the budget estimating construction
- *To provide* an additional document to support SMEs in Ho Chi Minh City in implement the establishment of budget estimation.

The paper is organized into the following four sections. First, there is a literature review looking at prior research that that the article is interested in. The next section mentions on methodology, including the qualitative and quantitative methods, research model and measurement design. The third section presents the research results and findings. In conclusion, the research ends with notifications based on the explored result, also noting on future research.

Research Method

In this article, the influence of factors on the construction of budget estimation of small and medium enterprises in Ho Chi Minh City is studied by qualitative and quantitative methods. For qualitative research, use expert interviewing and survey methods. Quantitative research methods include: descriptive statistics of obtained survey data, Cronbach's Alpha test, test the suitability level using EFA model and test the variance extracted with the support of SPSS software.

Identifying influencing factors and research model. From the document review in part 1 shows that there are 10 factors affecting the construction of the estimation, including: 1) Leadership Opinion (LO) (Liem, (2018); Trang, (2018) 2) Facilities (F) (Banović, 2005; Srbinoska, 2018; Hang, 2016; Keiser, 1974; Phuong, 2017); 3) Accounting Organization (AO) (Liem, 2018; Trang, 2018); 4) Policy Regime (PR) (Hang, 2016; Keiser, 1974)); 5) Business Characteristics (BC) (Srbinoska, 2018; Qi, 2010; Liem, 2018): 6) Estimation Process (EP) (Keiser, 1974); 7) Enterprise Size (ES) (Banović, 2005; Srbinoska, 2018); Qi, 2010; Liem, 2018) Ownership Structure (OS) (Liem, 2018); 9) Human Resources (HR) (Hang, 2016; Keiser, 1974); 10) Competition (C). (Phuong, 2017; Quyen, 2015) is the most researched by domestic and foreign researches. These ten influencing factors are selected as independent variables in the regression model for the dependent variable Budget Estimation (BE). The proposed multiple regression model is as follows:

$$BE = \alpha + \beta_1 LO + \beta_2 F + \beta_3 AO + \beta_4 PR + \beta_5 BC + \beta_6 EP + \beta_7 ES + \beta_8 OS + \beta_9 C + \beta_{10} HR + E_i$$

Qualitative Research Results

Results of Expert Interviews

Experts' opinions on the factors influencing the semi-structured interview results are summarized as follows: 1) *Leadership opinion*: Experts say that leaders play a particularly important role in construction of budget estimation. 2) *Enterprise size* has a high degree of impact on building budget estimation in commercial enterprises. 3) *Human resources*: In general, experts completely agree with the scale of the Human Resource factor. Employees in the unit need to have experience and knowledge to understand the objectives to be achieved. 4) *Accounting organization*: If a company wants to build well the budget estimation,

the accounting apparatus must have a combination of management accounting (MA) and financial accounting (FA), both support each other to improve. Budget estimation, which ensures accurate metrics, helps managers make quick and timely decisions. 5) *Facilities* have an impact on budget estimation of enterprises. Today, the software supports budget estimation a lot such as: G8, F1, Acitt, Eta, Delta ... However, nowadays most businesses use Microsoft Excel software, so businesses need to actively apply technology to improve working efficiency. 6) *Estimation process* has an impact on the construction of the budget estimation, but according to experts, the impact level is not high. 7) *Business characteristics* have an impact but not too high in the construction of budget estimation. 8) *Policy regime*: Vietnam's accounting regime has changed quite a lot to suit the characteristics of enterprises, but this makes the accounting work at enterprises face many difficulties in understanding and implementing. 9) *Competition*: For small and medium commercial enterprises in Ho Chi Minh City, the business activities not too large are mainly retail, selling by order, selling to familiar customers. 10) *Ownership structure*: According to experts, small and medium commercial enterprises have no division of type of enterprise, there is no division of power in the organization as well as the dispersion of ownership. Therefore, experts propose to eliminate two competitive factors and ownership structure.

After the expert interview, two factors of competition and ownership structure were removed and 8 independent variables remained. Therefore, the regression model after interviewing the expert is modified as follows (see figure 1).

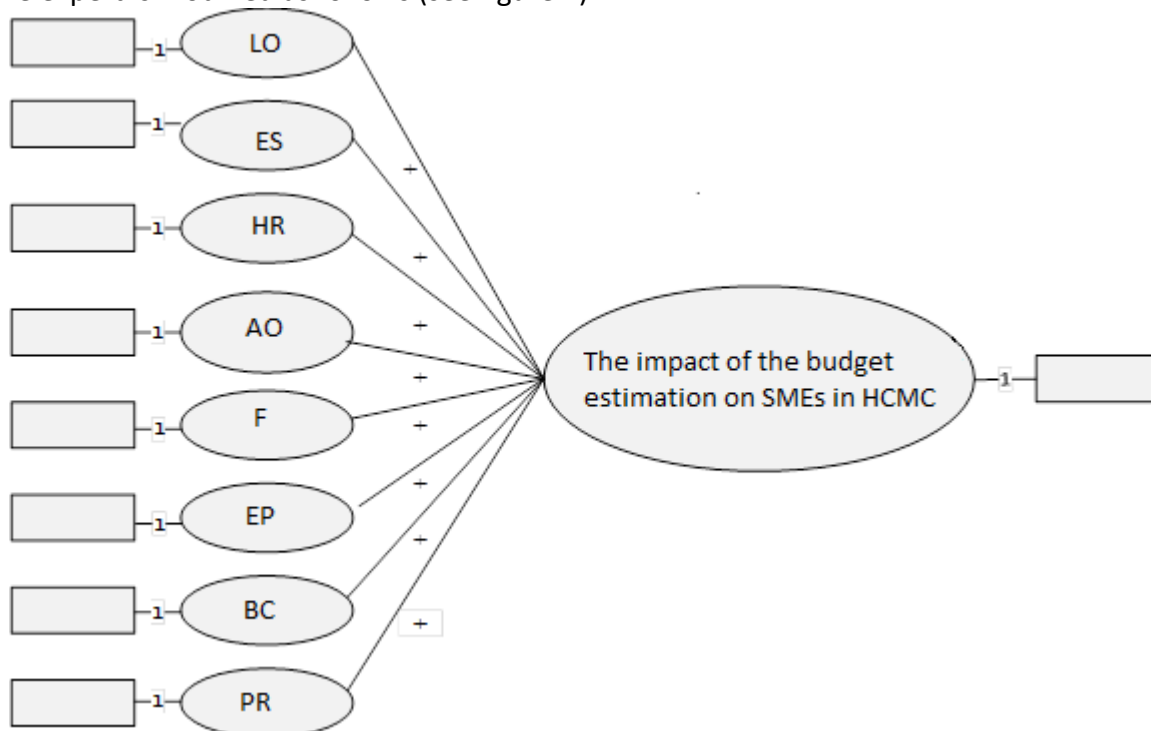


Figure 1: Regression model of factors affecting the budgeting of SMEs in Ho Chi Minh City.

Survey Results

Sample size selection: According to the Critical case, a sample is needed large enough to confirm that the data collected from the above method during the interview period is highly objective. According to Hair & Black, (2010), the minimum sample is 50, preferably 100, and the ratio of observations to the measurement variable is 5: 1, preferably 10: 1. Meanwhile, according to Barbara G. and Tabachnick, (2020), when using MLR (multiple regression), the

sample size n should be selected by the following formula: $n > 50 + 8p$ (p : number of independent variables). Based on the research model in this article, there are 8 independent variables, so there should be $50 + 8 * 8 = 114$ observations. With the aim of improving the reliability of the results, the survey was conducted on 300 observations. Survey method is done by building a questionnaire. All constructive variables will be measured on a 5-level Likert scale with option 1 being completely disagree with the statement and option 5 being the choice completely agree with the statement.

The results obtained from the SPSS statistical software show that, out of 302 questionnaires collected, 115 votes were surveyed as male and 187 surveyed were female, accounting for 38.1 and 68.5 respectively. %. The subjects that construct the MSWs account for 7.0%, while those who apply MSS account for 93.0%. There are 53.6% of people working in the unit having the profession of production - trade - services and 46.4% of people working in the unit in the profession of trade - service. In 302 survey questionnaires, 189 people have worked for less than 3 years, 105 people have worked from 3 years to 10 years and 8 people have worked for more than 10 years. The survey results show that 47% of enterprises prepare monthly revenue reports, 40.1% of enterprises prepare quarterly revenue reports, 8.3% of enterprises prepare annual revenue reports, 4.6% of enterprises prepare revenue reports Based on the request of the administrator, chief accountant or some enterprises that do not prepare revenue reports, only prepare financial statements, tax reports.

Descriptive statistical results are listed in Table 1.

Table 1

Summary of descriptive statistics results

Content of factor		The average value	Standard deviation
Descriptive statistics for the group "The impact of the budget estimates on SMEs in HCMC"			
BE1	The budget estimate details the organization's goal	3.24	0.47
BE2	Perform budgeting help control the cost of enterprise	3.21	0.46
BE3	Budgeting brings effective coordination and unified action between divisions and departments	3.28	0.50
BE4	Budgeting is a tool and coping with risks in business activities	3.27	0.50
Descriptive statistics of the group "Leadership opinion"			
LO1	The manager needs to use budget information to make decisions	3.31	1.22
LO2	The manager is involved in the budgeting process	3.35	1.27
LO3	The manager is interested in improving the professional qualifications of the budget estimator	3.38	1.16
LO4	The manager always talks with his subordinates before making a decision	3.22	1.30
LO5	Managers always explain their decisions to subordinates	3.34	1.26
Descriptive statistics of the group "Enterprise size"			
ES1	Annual revenue increase or decrease has an impact on the budget estimate	3.26	0.87

ES2	Decentralization in the business has an influence on the budgeting process	3.15	0.89
ES3	Budgeting costs depend on the size of the company	2.93	1.04
ES4	The enterprise has many affiliated units, the more complicated the budget estimate	2.95	0.91
Descriptive statistics of the group "Human resources"			
HR1	The budgeting staff has extensive experience and skills	3.60	0.99
HR2	Budgeting staff must have a clear understanding of the business's goals and budgeting processes	3.47	1.15
HR3	Employee understanding of the importance of budgeting	3.48	1.05
HR4	Budgeting staff are always improving their knowledge and expertise	3.66	1.31
HR5	The level of worker participation in estimation building	3.35	1.29
Descriptive statistics of the group "Accounting organizations"			
AO1	Financial accounting is involved with the management accounting in the budgeting process	3.54	0.78
AO2	Accountants understand the budgeting process to provide essential information	3.35	0.73
AO3	Management accounting is focused	3.02	0.82
AO4	Organizational apparatus of accounting, including financial accounting and management accounting, is convenient for making budget estimates	3.46	0.82
AO5	Set up an appropriate budget model	3.36	0.73
Descriptive statistics of the group "Facilities"			
F1	Enterprises are equipped with facilities, software for estimating	3.47	0.97
F2	The computer system is modern and keeps up with new software	3.35	1.03
F3	The stability of the internal computer network	3.33	1.02
F4	There is a department to support information and equipment for estimating	3.33	1.09
F5	The software system can evaluate the difference of actual results and estimates	3.48	0.99
Descriptive statistics of the group "Estimation process"			
EP1	The estimation process should be set up in detail and clearly	2.95	0.90
EP2	The budgeting process should be appropriate for the size of the business	3.17	0.83
EP3	The budgeting process should be convenient for actual tracking and comparison	3.25	0.75
EP4	Estimating form in full and unity between divisions and departments within the enterprise	3.08	0.77
EP5	Estimation process is to connect all parts of the organization	3.57	0.75

Descriptive statistics of the group "Business characteristics"			
BC1	The number of customers, competitors and suppliers affects the budget estimate	3.00	0.71
BC2	The higher the business position in the market, the more closely and accurately budget estimation must be established	2.83	0.65
BC3	The more market for products to be sold, the more attention is paid to budgeting	2.81	0.68
BC4	Quantity of goods is always estimated and enough to meet orders	2.89	0.89
BC5	Industry diversity (products) affects the estimation	3.21	0.62
Descriptive statistics of the group "Policy regime"			
PR1	The inventory management policy affects the business's estimation	3.53	0.83
PR2	Tax policy has an impact on the enterprise's estimates	3.38	0.94
PR3	The change of law affects the estimation of enterprises	3.03	0.72
PR4	Business policy (discount, ..) affects budget estimates	3.07	0.73
PR5	Debt management policies affect budget estimates	3.24	0.82
PR6	Changing accounting regime affects the estimation of enterprises	3.85	0.76

Commenting on Interview Results

In the group of factors "The impact of budget estimates on small and medium commercial enterprises in Ho Chi Minh City", most of the factors have an average value > 3, showing that the majority of respondents agree with contents related to budget estimates for small and medium commercial enterprises in Ho Chi Minh City. For the group of factors "Leadership Opinion", the surveyed people did not completely agree when asked about the manager who always discussed with his subordinates before making a decision affecting the construction of the budget estimation. The "Enterprise Size" group has 2 factors: ES 3 and ES 4 with average value < 3, according to which the surveyed people think that the cost of establishing budget estimation depends on the size and the company has many affiliated units, the more complex the budget estimation does not affect the construction of the budget estimation. Most of the factors in the group "Human Resources" have average value > 3, this shows that the majority of respondents agree on the impact of this factor on the construction of the budget estimation. Factors group "Accounting Organization", most of the surveyed people wondered that the focus on Management Accounting affects the construction of budget estimation. For the group of factors "Facilities", the subjects do not completely agree on the idea that support information and ancillary estimation equipment that affect the construction budget estimates. For the group of factors "Estimation Process", the respondents also wondered with two factors (1) Estimation Process needs to be established in detail (average value <3) and (2) Complete and unified estimation forms among divisions and departments in enterprises. Factor group "Business Characteristics": There are 3 factors (1) The higher the position of the enterprise in the market, the more closely and accurately budget estimation must establish; (2) The more product consumption market expands, the more attention budget estimation gets; (3) The quantity of enterprise's goods is always estimated and is enough to meet the orders which have not been unanimously agreed by the surveyors (average value < 3).

Regarding the factor "Policy Regime", the surveyed subjects disagree that the change of law affects the budget work of enterprises and business policy (discount, ...) affects the budget estimation.

Hypothesis Tests

Evaluate the Reliability of the Scale

Table 2

Results of testing the scale of the factors

Factor	Observed variables	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
BE1	The budget estimate details the organization's goal	9.76	1.255	.576	.651
BE2	Perform budgeting help control the cost of enterprise	9.79	1.293	.549	.667
BE3	Budgeting brings effective coordination and unified action between divisions and departments	9.73	1.267	.500	.695
BE4	Budgeting is a tool and coping with risks in business activities	9.73	1.298	.494	.698
<i>Cronbach's alpha coefficient for the group "Impact of budget estimates" is: 0.737</i>					
LO1	The manager needs to use budget information to make decisions	13.29	12.939	.694	.692
LO2	The manager is involved in the budgeting process	13.26	12.606	.696	.689
LO3	The manager is interested in improving the professional qualifications of the budget estimator	13.23	13.193	.708	.690
LO4	The manager always talks with his subordinates before making a decision	13.39	17.409	.131	.871
LO5	Managers always explain their decisions to subordinates	13.27	13.095	.641	.709
<i>Cronbach's alpha coefficients of the group "Leadership Opinion" are: 0.780</i>					
ES1	Annual revenue increase or decrease has an impact on the budget estimate	9.04	5.490	.594	.763
ES2	Decentralization in the business has an influence on the budgeting process	9.14	5.219	.647	.738
ES3	Budgeting costs depend on the size of the company	9.36	4.571	.677	.723
ES4	The enterprise has many affiliated units, the more complicated the budget estimate	9.35	5.478	.556	.781
<i>Cronbach's alpha coefficients of the group "Enterprise size" are: 0.802</i>					

HR1	The budgeting staff has extensive experience and skills	13.96	16.238	.592	.856
HR2	Budgeting staff must have a clear understanding of the business's goals and budgeting processes	14.08	14.156	.753	.817
HR3	Employee understanding of the importance of budgeting	14.08	14.851	.743	.822
HR4	Budgeting staff are always improving their knowledge and expertise	13.90	13.268	.734	.822
HR5	The level of worker participation in estimation building	14.21	14.237	.623	.853
<i>Cronbach's alpha coefficients of the group "Human resources" are: 0.863</i>					
AO1	Financial accounting is involved with the management accounting in the budgeting process	13.19	6.034	.680	.799
AO2	Accountants understand the budgeting process to provide essential information	13.38	6.071	.729	.787
AO3	Management accounting is focused	13.72	6.284	.551	.835
AO4	Organizational apparatus of accounting, including financial accounting and management accounting, is convenient for making budget estimates	13.27	5.773	.704	.791
AO5	Set up an appropriate budget model	13.37	6.539	.573	.827
<i>Cronbach's alpha coefficient of the group "Accounting Organization" are: 0.841</i>					
F1	Enterprises are equipped with facilities, software for estimating	13.49	9.360	.706	.724
F2	The computer system is modern and keeps up with new software	13.61	9.693	.584	.761
F3	The stability of the internal computer network	13.63	9.929	.545	.773
F4	There is a department to support information and equipment for estimating	13.63	9.436	.576	.764
F5	The software system can evaluate the difference of actual results and estimates	13.48	10.270	.510	.783
<i>Cronbach's alpha coefficient for the group "Facilities" is: 0.800</i>					
EP1	The estimation process should be set up in detail and clearly	13.07	6.238	.563	.823
EP2	The budgeting process should be appropriate for the size of the business	12.85	5.824	.772	.757
EP3	The budgeting process should be convenient for actual tracking and comparison	12.77	6.443	.696	.783

EP4	Estimating form in full and unity between divisions and departments within the enterprise	12.94	6.585	.611	.805
EP5	Estimation process is to connect all parts of the organization	12.45	6.919	.541	.823
Cronbach's alpha coefficients of "Estimation Process" group are: 0.833					
BC1	The number of customers, competitors and suppliers affects the budget estimate	11.75	4.262	.449	.683
BC2	The higher the business position in the market, the more closely and accurately budget estimation must be established	11.91	4.398	.456	.681
BC3	The more market for products to be sold, the more attention is paid to budgeting	11.94	4.302	.458	.680
BC4	Quantity of goods is always estimated and enough to meet orders	11.85	3.487	.530	.656
BC5	Industry diversity (products) affects the estimation	11.54	4.336	.527	.658
Cronbach's alpha coefficients of the group "Enterprise characteristics" are: 0.719					
PR1	The inventory management policy affects the business's estimation	16.58	6.816	.456	.663
PR2	Tax policy has an impact on the enterprise's estimates	16.73	6.579	.419	.678
PR3	The change of law affects the estimation of enterprises	17.08	6.824	.566	.633
PR4	Business policy (discount, ..) affects budget estimates	17.04	7.211	.438	.669
PR5	Debt management policies affect budget estimates	16.87	7.163	.371	.690
PR6	Changing accounting regime affects the estimation of enterprises	16.26	7.215	.412	.676
Cronbach's alpha coefficients of the group "Policy regimes" are: 0.708					

Cronbach's Alpha test is used to check the reliability of scales. In each scale, Cronbach's Alpha coefficient is in the range of 0.6 to 0.9 and at the same time, if a variable has a total variable correlation coefficient ≥ 0.3 , it meets the requirements.

Cronbach's Alpha's test comments of each factor:

Factor "Impact of budget estimation on SMEs in Ho Chi Minh City" includes 4 observed variables. Cronbach's Alpha has a total group of: 0.737. The observed variables have correlation coefficients greater than 0.3 and Cronbach's Alpha coefficients if the type of variables are smaller than Cronbach's Alpha coefficients of the group. Conclusion that all the variables in the group are reliable.

The factors "Enterprise Size", "Human Resources", "Accounting Organization", "Facilities", "Estimation Process", "Business Characteristics" have 5 observed variables and the factor "Policy Regime" 6 observed variables Cronbach's Alpha has a total group of respectively:

0.802, 0.863, 0.841, 0.800, 0.833, 0.719 and 0.0.708, all greater than 0.60. The observed variables have correlation coefficients greater than 0.3 and Cronbach's Alpha coefficients if the type of variables are smaller than Cronbach's Alpha coefficients of the group. So all the variables in the 6 groups are reliable.

Factor "Leadership Opinion" has 5 observed variables Cronbach's Alpha has a total group of: 0.780. There is a variable "The manager always talks with subordinates before making a decision" has a correlation coefficient of less than 0.3 and has a coefficient Cronbach's Alpha if the variable type is greater than the coefficient Cronbach's Alpha of the group should be disqualified. The remaining observed variables all have correlation coefficients greater than 0.3 and Cronbach's Alpha coefficients if the type of variables are smaller than Cronbach's Alpha coefficients of the group. Therefore, all remaining variables are reliable.

Test the Factor Analysis Model

The results of the first factor analysis EFA showed that the scale is accepted and divided into 8 factors. In which, the scale with the smallest weight and the difference less than 0.3 is AO3, so this scale will be rejected in the first analysis. Next, the coefficients have ensured the reliability of the scale, tested KMO (Kaiser - Meyer - Olkin) and Bartlett to confirm the suitability of the survey results with the discovery factor analysis method. EFA.

Table 3

Kmo's Test Results, Bartlett's Test and Extracted Variance

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.748
Bartlett's Test of Sphericity	Approx. Chi-Square	4784.979
	df	780
	Sig.	.000

According to Keiser [18], to use EFA, KMO must be $0.5 < KMO < 1$ and sig value < 0.05 for Bartlett test [19]. The test results (Table 3) show that the KMO of the model passed and the Bartlett test, the value of Sig = 0.00 < 0.05 , showed that the data were appropriate with the discovery factor analysis method.

Table 4

*Total variance extracted is explained**Total Variance Explained*

(Factor)	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.284	11.273	11.273	4.284	11.273	11.273	3.337	8.780	8.780
2	3.906	10.280	21.552	3.906	10.280	21.552	3.082	8.111	16.891
3	3.058	8.048	29.601	3.058	8.048	29.601	3.042	8.006	24.897
4	3.036	7.990	37.590	3.036	7.990	37.590	2.890	7.605	32.502
5	2.516	6.621	44.211	2.516	6.621	44.211	2.784	7.326	39.828
6	2.148	5.653	49.864	2.148	5.653	49.864	2.593	6.825	46.653
7	2.089	5.498	55.361	2.089	5.498	55.361	2.547	6.703	53.355
8	1.707	4.493	59.854	1.707	4.493	59.854	2.470	6.499	59.854
9	1.088	2.863	62.717						
.	.	.							
.	.	.							
38	.160	.420	100.000						

Extraction Method: Principal Component Analysis.

Test of variance extracted to consider the level of variance or explanation level of each group of factors discovered through EFA factor analysis tool. Explanatory test results (Table 4) show that the observed variables have the rate of variance extracted > 50%, which is eligible to form a factor.

Table 5

Results of factor analysis EFA

ROTATION MATRIX								
Observed variables	Factor							
	1	2	3	4	5	6	7	8
HR2	.863							
HR3	.847							
HR4	.829							
HR1	.726							
HR5	.722							
EP2		.876						
EP3		.827						
EP4		.747						
EP1		.679						
EP5		.625						
LO2			.868					
LO1			.847					
LO3			.837					
LO5			.785					
F1				.833				
F4				.738				
F2				.733				
F3				.719				
F5				.678				
AO4					.816			
AO 1					.815			
AO2					.792			
AO 5					.731			
ES3						.826		
ES2						.811		
ES1						.781		
ES4						.719		
PR3							.751	
PR4							.666	
PR5							.616	
PR1							.605	
PR6							.593	
PR2							.580	
BC5								.725
BC 4								.712
BC1								.670
BC 2								.661
BC3								.645

Table of rotating factors matrix in table 5 shows that the characteristic variables have factor loading coefficients (Factor loading > 0.5) with 8 factors representing the impact on the

construction budget of small and medium commercial enterprises in HCMC. The results show that after testing, the new model is similar to the original 8-factor model:

Factor 1 (HR): Variables of HR1, HR2, HR3, HR4 and HR5

Factor 2 (EP): Variables EP1, EP2, EP3, EP4 and EP5

Factor 3 (LO): Variables LO1, LO2, LO3, LO4 and LO5

Factor 4 (F): Variables F1, F2, F3, F4 and F5

Factor 5 (AO): Variables AO1, AO2, AO3, AO4 and AO5

Factor 6 (ES): Variables ES1, ES2, ES3, ES4 and ES5

Factor 7 (PR): Variables PR1, PR2, PR3, PR4 and PR5

Factor 8 (BC): Variables BC1, BC2, BC3, BC4 and BC5

The correlation matrix of factors is described in Table 6.

Table 6

Correlation matrix of factors

		BE	LO	ES	HR	AO	F	EP	PR	BC
Pearson Correlation	BE	1.000	.443	.260	.430	.379	.375	.366	.110	.194
	LO	.443	1.000	.032	.214	.012	.039	-.013	.069	.015
	ES	.260	.032	1.000	.106	-.002	.035	-.016	-.115	-.114
	HR	.430	.214	.106	1.000	.005	.044	.069	-.106	.029
	AO	.379	.012	-.002	.005	1.000	.045	.431	-.044	-.011
	F	.375	.039	.035	.044	.045	1.000	.026	-.067	.135
	EP	.366	-.013	-.016	.069	.431	.026	1.000	-.073	-.047
	PR	.110	.069	-.115	-.106	-.044	-.067	-.073	1.000	.022
	BC	.194	.015	-.114	.029	-.011	.135	-.047	.022	1.000
Sig. (1- tailed)	BE	.	.000	.000	.000	.000	.000	.000	.028	.000
	LO	.000	.	.289	.000	.418	.252	.408	.115	.399
	ES	.000	.289	.	.033	.483	.271	.389	.023	.024
	HR	.000	.000	.033	.	.463	.222	.114	.033	.307
	AO	.000	.418	.483	.463	.	.217	.000	.224	.427
	F	.000	.252	.271	.222	.217	.	.325	.122	.009
	EP	.000	.408	.389	.114	.000	.325	.	.102	.209
	PR	.028	.115	.023	.033	.224	.122	.102	.	.354
	BC	.000	.399	.024	.307	.427	.009	.209	.354	.

Table 6 shows that 8 factors are strongly correlated with the construction of budget estimation for SMEs in HCMC. Specifically: with 95% confidence, the correlation coefficient of the factors "Leadership Opinion", "Business Size", "Human Resources", Accounting Organization", "Facilities", "Estimation Process", "Policy Regime", "Business Characteristics" have correlation coefficients respectively 0.443, 0.260, 0.430, 0.379, 0.375, 0.366, 0.110, 0.194.

Multiple Regression Model

From the test results, the following multiple regression model is proposed:

$$BE = 0.340 * LO + 0.253 * ES + 0.313 * HR + 0.260 * AO + 0.310 * F + 0.256 * EP + 0.196 * PR + 0.177 * BC (1)$$

Check the Suitability of the Model

Table 7

Summary of Regression Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.846 ^a	0.715	0.707	0.19559	0.715	91.827	8	293	0.000
a. Predictors: (Constant), HR, AO, BC, PR, F, ES, LO, EP									
b. Dependent Variable: BE									

In Table 7, value R² = 0.715, shows that about 71.5% of the impact on the budget estimation is explained by 8 variables, Leadership Opinion, Human Resources, Facilities, Accounting Organization, Estimation Process, Enterprise Size, Policy Regime, Business Characteristics.

Table 8

Analysis of variance (ANOVA) factors

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28.102	8	3.513	91.827	.000 ^b
	Residual	11.209	293	0.038		
	Total	39.311	301			
a. Dependent Variable: BE						
b. Predictors: (Constant), HR, AO, BC, PR, F, ES, LO, EP						

F value of the model is 91.827, Sig value = 0.000. Thus with 95% confidence there exists a linear relationship of at least one variable among the above 8 variables [20].

Regression Coefficient Test

According to Hair and Black (2010) if VIF > 10 has multi-collinearity phenomenon, it means that the independent variables are correlated with each other and the analysis model does not accurately measure the impact level of the variables in the model. Table 9 shows that all variables have the value Sig < 0.05, so with 95% confidence and descriptive statistical results, it is possible to conclude that 8 variables are correlated with the variable BE, moreover the values are VIF < 10, meaning that there is no multi-collinearity phenomenon, that is, there is no linear relationship between the variables.

Table 9

Regression Coefficients (Coefficients) of the Factors

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-0.284	0.154		-1.844	0.066		
	LO	0.118	0.011	0.340	10.573	0.000	0.943	1.061
	HR	0.121	0.013	0.313	9.640	0.000	0.924	1.082
	F	0.147	0.015	0.310	9.792	0.000	0.971	1.030
	AO	0.150	0.020	0.260	7.497	0.000	0.812	1.232
	EP	0.149	0.020	0.256	7.362	0.000	0.804	1.244
	ES	0.124	0.016	0.253	7.950	0.000	0.961	1.040
	PR	0.138	0.022	0.196	6.161	0.000	0.960	1.041
	BC	0.130	0.023	0.177	5.575	0.000	0.963	1.039

a. Dependent Variable: BE

Significance of Regression Coefficient

Based on Table 9 (ANOVA), the coefficient β of the independent variables in the regression model shows that 8 variables Enterprise Size, Business Characteristics, Policy Regime, Leadership Opinion, Accounting Organization, Facilities, Human Resources, Estimation Process have positive relationship with dependent variable impact of Budget Estimation on small and medium commercial enterprises in Ho Chi Minh City.

Standardized regression coefficients

Table 10

Standardized Regression Coefficients of Factors

Independent variable	Variable name	Standardized regression coefficients	Ratio (%)	Hierarchy
LO	Leadership opinion	0.340	16.152	1
HR	Human Resources	0.313	14.869	2
F	Facilities	0.310	14.727	3
AO	Accounting organization	0.260	12.352	4
EP	Estimation process	0.256	12.162	5
ES	Business size	0.253	12.019	6
PR	Policy regime	0.196	9.31	7
BC	Business characteristics	0.177	8.409	8

If we consider the meaning of the normalized regression coefficient, we can establish the influence order of the factors. Thus, the impact of Budget Estimation on SMEs in Ho Chi Minh City needs to consider the impact factors arranged from the factor with the highest impact to the factor with the lowest impact, in order of The priorities are as shown in Table 10 as

follows: Leadership Opinion > Human Resources > Facilities > Accounting Organization > Estimation Process > Enterprise Size > Policy Regime > Business Characteristics.

"Leadership Opinion" is the most powerful factor affecting the establishment of BE. In which many experts agree that "The manager is interested in improving the professional capacity of BE staff" is the strongest impact factor with the average value of 3.38 and the standard deviation of 1.16. The factor "The manager is involved in the estimation process" affects the second place, with the mean of 3.35 and the standard deviation of 1.27. "Managers always explain their decisions to subordinates" in third place, with an average value of 3.34 and a standard deviation of 1.26. According to the expert's opinion, "The manager wishing to use BE information to make decisions" is a factor affecting the fourth position in the LO factor group with the mean value of 3.31 and standard deviation. is 1.22.

"Human Resources" ranks second in the scale of influencing factors. In the group of human resources, the factor "BE staff always improve their knowledge and expertise" has the strongest impact with the average survey value of 3.66 and the standard deviation of 1.31. "The staff to create a BE with a lot of experience and skills" ranks second in the group of human resources factors, with the average value of the survey is 3.60 and the standard deviation is 0.99. In the third place, the experts all agreed with the opinion "Employee understanding of the importance of creating BE" with the survey average value of 3.48 and the standard deviation of 1.05. Next, "The staff who establishes BE must understand the goals and the process of establishing the BE of the enterprise" agreed by experts in the survey with the average value of 3.47 and the standard deviation of 1.15. Finally, "The level of participation of workers in the construction of the BE" agreed by experts when surveyed with the average value of 3.35 and the standard deviation of 1.29.

"Facilities" ranks third in the scale of influencing factors. According to the survey results, the factor "The software system can evaluate the actual results and budget estimation" has a strong impact on the establishment of BE of small and medium commercial enterprises in Ho Chi Minh City with the average value of 3.48 and standard deviation 0.99. In second place, "Enterprise equips facilities and software for budget estimation" is one of the consensus factors of the most people with the surveyed average of 3.47 and the standard deviation of 0.97. The factor "Modern computer systems and keep up with new software" is one of the factors affecting the construction of BE with the average value of the survey is 3.35 and the standard deviation is 1.03. "The stability of the internal computer network" is a factor that receives a lot of agreement with the surveyed average value of 3.33 and standard deviation of 1.02. The factor "Having an information support and equipment to establish the budget estimation" also has a significant impact on the construction of budget estimation for SMEs in Ho Chi Minh City, corresponding to the average value of 3.33 and standard deviation is 1.09.

In the group of factors of "Accounting Organization", "Financial accounting is involved with the management accounting in the process of building budget estimation" has the strongest impact on the construction of budget estimation of small and medium commercial enterprises in Ho Chi Minh City with the average value of 3.54 and the deviation. Standard is 0.78. Vietnamese enterprises are still quite vague about the management accounting, while this is an important weapon to improve the efficiency of management and the competitive position of enterprises (Trang, 2018). The core reason that Management Accounting has not been paid attention and is the weakest stage of Vietnamese enterprises is that: Vietnam approached the management accounting in the late nineteenth century later than developed countries; management accounting only started teaching at universities after 1994; The

accounting training program focuses on teaching students how to record accounting Trang, (2018). According to the survey results, the factor "Organization of accounting apparatus including management accounting and financial accounting is favorable for the establishment of budget estimation" is the second most influential factor on the technical standards with the average value of 3.46 and standard deviation of 0.82, "Set up the appropriate budget estimation model" with the average value of 3.36 and the standard deviation of 0.73 stands at 3rd place and "The accountant understands the estimation process to provide necessary information" stands in place. fourth place with an average value of 3.34 and a standard deviation of 0.73.

In the group "Estimation Process", the factor "Budget estimation is the connection of all parts of the organization" agreed by experts to be the factor that has the strongest impact on budget estimation with the mean value of 3.57 and the standard deviation. is 0.75. "Budget estimation is convenient for actual monitoring and comparison" comes second with the mean of 3.25 and the standard deviation of 0.74. The factor "Estimation process must be consistent with enterprise size" is the third most influencing factor of budget estimation with an average of 3.17 and standard deviation of 0.83 and "Budget estimation forms must be complete and unified among divisions and departments in enterprises" ranked fourth with an average of 3.08 and a standard deviation of 0.77. The factor "Budget estimation needs to be established in detail and clarity" is one of the factors that have the lowest impact on the construction of the private sector of SMEs in Ho Chi Minh City with an average value of 2.95 and standard deviation of 0.90.

"Business Size" factor ranks 6th in the table of impact. According to many experts, "Increase or decrease in annual revenue has an impact on budget estimation" is one of the factors that have the strongest impact on building budget estimation with the surveyed average value of 3.26 and the standard deviation is 0.87. Next, "Decentralization in enterprises affects the establishment process of budget estimation" with the average value of 3.15 and the standard deviation of 0.89. Two factors "Enterprise has many affiliated units, the more complex the budgeting is" with the average value of 2.95 and the standard deviation of 0.90 and "The cost of setting up budget estimation depends on the size of the enterprise" with the average value of the survey was 2.93 and the standard deviation of 1.04 agreed by many experts, but stood at the lowest impact position.

In the group of "Policy Regimes", the factor "Changes in accounting regime affecting the budget estimation work of enterprises" has the strongest impact on the production capacity of enterprises with the average value of 3.85 and the standard deviation of 0.76. With the second impact level, the factor "Inventory management policy affects budget estimation" has an average value of 3.53 and a standard deviation of 0.83. The factor "Tax policy affects budget estimation" is the factor that has the third degree of impact on the construction of the private sector of small and medium commercial enterprises in Ho Chi Minh City with an average value of 3.38 and standard deviation of 0.94. "Debt governance policy affects budget estimation" is a factor with the fourth degree of impact among the group of factors Policy regime with average value of 3.23 and standard deviation of 0.82. In the fifth place according to the survey results, "Business policy (discount, ...) affects budget estimation" is one of the factors of the group of policy regime factors that affect the construction of budget estimation with average value is 3.07 and the standard deviation is 0.73. With the lowest impact level, "The change of the law affects the budget estimation" is an impact factor in the policy regime group with the average value of 3.03 and the standard deviation of 0.72.

In the group of "Business Characteristics", the majority of respondents agree that the factor "The diversity of industries (products) affects budget estimation" plays an important role in building budget estimation for SMEs in HCMC, which corresponds to the mean of 3.21 and the standard deviation of 0.62. The second level of impact belongs to the factor "Number of customers, competitors, and suppliers influencing budget estimation" with the mean of 3.0 and standard deviation of 0.71. In the third position, "The quantity of business goods is always estimated and enough to meet the orders" is also a factor in the group of business service factors that have an impact on estimation with the average value of 2.89 and the standard deviation equals 0.90. Finally, the factor "The more the market expands the product, the more attention budget estimation is focused on" influences the creation of a budget estimation with an average value of 2.81 and a standard deviation of 0.68. "Size and position in the industry of the enterprise" has a significant impact on the establishment of budget estimation of the unit with the average value of 2.83 and standard deviation 0.65.

Conclusion

Combining comparative synthesis methods, objective reasoning with quantitative research methods such as descriptive statistics, Cronbach's Alpha test, extraction variance test and multiple regression factors affecting the establishment of budget estimation of SMEs in Ho Chi Minh City were comprehensively reviewed. Research results, has identified and measured the impact level of each factor. Qualitative research results show 8 factors affecting the process of building the budget estimation of commercial enterprises in Ho Chi Minh City, including: Leadership opinion (5) scale; Human resources (5) scale; Facilities (5) scale; Accounting organization (5) scale; Estimation process (5) scale; Enterprise size (4) scale; Policy regime (6) scale; Business characteristics (5) scale. Quantitative research is done with 302 questionnaires, by expert survey methods; hypothesis tests have built the following regression model:

$$BE = 0.340*LO + 0.253*ES + 0.313*HR + 0.260*AO + 0.310*F + 0.256*EP + 0.196*PR + 0.177*BC$$

Regression model allows to arrange the influence of factors on establishing budget estimation in small and medium enterprises in Ho Chi Minh City in the following order: Leadership opinion > Human resources > Facilities > Accounting organization > Estimating process > Enterprise size > Policy regime > Business characteristics.

The research results are useful references in building budget estimates of small and medium-sized commercial enterprises in Ho Chi Minh City. The results of the survey and evaluation show that in order to make a successful and realistic budget estimate, the above 8 factors need to be taken into account, in which the factor "Leadership perspective" has the strongest impact. Therefore, leaders of large enterprises need to pay special attention to improving the professional qualifications of estimating staff, and at the same time, leaders need to participate in the budget estimation process. In addition, the role of information technology and software systems also has a stronger impact on the efficiency of budgeting. Therefore, updating and applying modern software to estimate work is a real need. The survey results show that the "organization of the accounting apparatus" including management accounting and financial accounting is convenient for making estimates, but Vietnamese enterprises are still quite vague about management accounting. Therefore, this is also a factor that businesses need to focus on developing.

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