EFFECTS OF BUDGETARY PARTICIPATION ON FIRM PERFORMANCE ON FINANCE BUSINESSES IN THAILAND

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ABSTRACT: *This study aims at investigating the relationships among budgetary participation, resource utilization, operational effectiveness, business productivity, and firm performance of finance businesses in Thailand. The samples of the study are 178 finance businesses in Thailand. The results show that budgetary participation has an important impact on resource utilization and business productivity, but it has no influence on operational effectiveness and firm performance. Likewise, resource utilization significantly affects operational effectiveness and business productivity while only operational effectiveness is critically related to firm performance, but resource utilization and business productivity have no effect on firm performance. In this study, budgetary participation becomes a main strategic tool in helping firms drive, explain and determine superior business outcomes in the volatile competitive markets and environments. Accordingly, executives of firms need to support and promote their employees to study and understand the benefits, limitations and implementations of budgetary participation. More successful implementation of budgetary participation is likely to enhance firms to survive and sustain in business operations.*

Keywords: *Budgetary participation; resource utilization; operational effectiveness; business productivity; business operation; firm performance*

Introduction

Recently, strategic management accounting is a new challenge of management accounting concepts and it is a valuable business method, approach and procedure in the rigorously competitive situations (Ma and Tayles, 2009). It has become an important tool in supporting firms to initial, create and apply their organizational operation, practices and activities in order to gain competitive advantages, obtain superior performance, and achieve survival and sustainability within these environments.

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In existing literature, strategic management accounting is defined as the provision and analysis of management accounting data about a business and its competitors, for use in developing and monitoring business strategies (Langfield-Smith, 2008). It has attempted to integrate concepts of accounting, marketing and management aspects by establishing best business practices for gaining organizational success. It comprises several techniques, including strategic costing, strategic planning, control and measurement, strategic decision making, competitor accounting, and customer accounting (Cadez and Guilding, 2012). Strategic management accounting techniques consist of three characteristics, namely environmental awareness, competitor focus and forward-looking orientation (Lachmann et al., 2013). It can help firms understand competitive environment changes, analyze competitors' characters and positions and provide relevant information for future operations' decision making. Firms have implemented strategic management accounting in order to link business strategies, organizational techniques and management accounting practices together effectively and efficiently for pursuing competitiveness and stability in the current and future operations. Accordingly, successfully implementing strategic management accounting is likely to have a positive relationship with competitive advantages and firm performance.

Budgetary participation is one approach of strategic management accounting techniques. It refers to a process whereby subordinates are given opportunities to get involved in and have influence on the budget setting process (Chong, 2002). It attempts to give an opportunity to subordinate managers for expressing their opinions and perspectives, interacting with their supervisors and joining decision making process of business plans that affect their own areas of commitment, responsibility, satisfaction, and achievement. It focuses on subordinate participation in the budget setting process. Also, budgetary participation is defined as the amount of involvement and influence a subordinate manager has for setting his or her units' budgets during budget planning (Derfuss, 2009). Implementing budgetary participation has given the benefits, contributions and advantages to employees and organizations. Firstly, budgetary participation explicitly encourages employees to achieve goal commitment and role ambiguity reduction, have working motivation, and gain job satisfaction and individual performance (Jermias and Yigit, 2013). Secondly, budgetary participation outstandingly contributes to firms' managerial performance (Agbejule and Saarikoski, 2006). Likewise, budgetary participation enhances firms to open to and communicative with subordinates, have access to private information about the power of subordinates and convey a sense of justice and fairness when budgets are used to evaluate subordinates (Lavarda and Almeida, 2013). Greater budgetary participation is likely related to firms' performance. Thus, it is a main determinant of explaining firm performance. Firms with successful budgetary participation implementation tend to obtain superior performance.

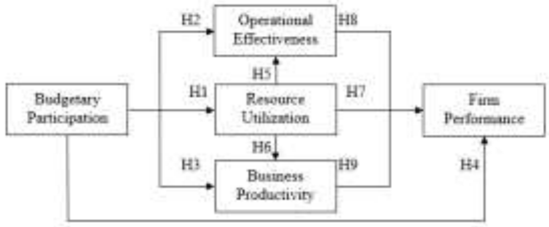
In this study, effects of budgetary participation on firms' outcomes are also considered. These outcomes include resource utilization, operational effectiveness, and business productivity. Resource utilization is the first outcome of budgetary participation implementation in an organization. Within limited resources of firms, firms have attempted to manage their resources and assets efficiently through fairness and justice of resource allocation (Wentzel, 2002). More successful resource allocation reflects firms' resource utilization. Furthermore, budgetary participation contributes to firms' operational effectiveness. It helps firms achieve budget objectives through increased work satisfaction, added morale, created effectiveness, and improved performance (Kung et al., 2013). Business productivity has been a significant result of successful participative budget setting goals (Breaux et al., 2011). It presents an ability of firms to match a balance between resource use and value creation within business operations, practices and activities. Hence, budgetary participation is an important determinant in driving resource utilization, operational effectiveness, and business productivity in this study. To verify the aforementioned relationships, this study collects data from finance businesses in Thailand. Most of them are large firms, namely banks, insurance, investment, and security companies and related businesses. Then, effective budget setting process via budgetary participation of subordinate managers and members could help them obtain competitiveness and encourage them to succeed, survive and sustain in the competitive environments.

The purpose of this study is to test the effects of budgetary participation on resource utilization, organizational effectiveness, business productivity, and firm performance of finance businesses in Thailand. In this study, the key research question is how budgetary participation affects firm performance. Also, the specific research questions are: (1) How budgetary participation influences resource utilization, organizational effectiveness and business productivity, (2) How resource utilization impacts organizational effectiveness, business productivity and firm performance, and (3) How organizational effectiveness and business productivity relate to firm performance. The rests of this study are relevant literature review of budgetary participation and related issues, hypotheses development, research methods, results and discussions, limitations of the study, implications for theory and management, directions for future research, and conclusion of the study.

Literature Review of Budgetary Participation and Hypotheses Development

In the study of Barney (1991), the resource-based view of the firms (RBV) is a main theory in explaining the relationships between budgetary participation and firm performance. According to the RBV, internal resources are sources of competitive advantage and performance. In this study, budgetary participation is proposed to become an internal resource of firms and it is valuable, rare, inimitable, and non-substitutable. Hence, greater implementation of budgetary participation is likely to enhance firms to gain better competitive advantage and achieve superior performance. As mentioned earlier, budgetary participation plays a significant role in determining resource utilization, organizational effectiveness, business productivity, and firm performance. Thus, the research relationships of these variables are discussed and hypothesized. The conceptual model presents the relationships, as shown in Figure 1.

Figure 1: The conceptual model of the budgetary participation-firm performance relationships



Budgetary Participation

Within strategic management accounting techniques, budgetary participation as one of most valuable techniques is considered as a strategic tool for firms' planning, control and measurement. Budgetary participation refers to a means of communicating and influencing subordinate managers in the budgetary process (Mah'd et al., 2013). It allows these subordinates to exchange information with supervisors to influence their budget target and to ensure budget adequacy. These subordinates attempt to negotiate their own needs with their superiors relating to firms' objectives, goals and targets in order to encourage them to perform efficiency, effectiveness, quality, and excellence. Firms with budgetary participation implementation can promote open and communicative relationships with subordinates, have access to private information about the power of the subordinates and convey a sense of justice and fairness when budgets are used to evaluate the subordinates (Lavarda and Almeida, 2013; Wentzel, 2002). Likewise, budgetary participation is defined as a process whereby subordinates are given the opportunities to get involved in and have influence on the setting process of budget parameters with management (Chong, 2002). It is beneficial for planning, supervising and coordinating budgetary performance. Thus, budgetary participation is a subordinate participation in the budget setting process. Also, budgetary participation is the amount of involvement and influence subordinate managers have for setting their units' budgets (Derfuss, 2009). It is an important approach of budget planning, control and measurement. It helps firms provide budgetary monitoring by expressing an early warning of deviations from budgetary targets and alert top management to take corrective actions and budgetary communication by coordinating departmental operations to enhance the overall efficiency of organizational operations (Kung et al., 2013). Firms can apply budgetary participation as a remedy for the dysfunctional attitudinal and behavioral side effects of using budgets simultaneously to pressure, motivate and control their employees to work efficiently and effectively in order to manage their operations, activities and practices for supporting their goal achievements in the uncertain competitive circumstances.

As mentioned earlier, the participative budget setting process can help firms achieve their business goals, targets and objectives effectively, efficiently and excellently. While budgetary participation is important within the current and future business environments, outcomes of budgetary participation is reasonably considered and discussed. In this study, theses outcomes comprise four issues, including resource utilization, operational effectiveness, business productivity and firm performance. Firstly, resource utilization is a significant result of successfully implementing budgetary participation. In general, firms have limited resources and assets. They have attempted to search for effective approaches in managing their resources and assets. Within limited resources of firms, budgetary participation is one of these effective approaches in helping firms allocate their resources effectively and efficiently through involvement and negotiation of subordinates. Successful budgetary participation presents fairness and justice of resource allocation (Wentzel, 2002). More effective resource allocation reflects firms' resource utilization. Secondly, operational effectiveness becomes a main outcome of implementing budgetary participation. Budgetary participation can help firms achieve budget objectives, goals and targets through increased work satisfaction, added morale, created effectiveness, and improved performance (Kung et al., 2013). It becomes a strategic tool in supporting firms to operate their activities and practices in order to meet their goals via cooperation, coordination and integration of supervisors and subordinates. Thirdly, budgetary participation explicitly gives a contribution to firms' business productivity. Business productivity is an important result of successful participative budget setting goals (Breaux et al., 2011). It presents an ability of firms to match a balance between resource use and value creation within business operation, practices and activities. Then, budgetary participation can help firms create their productivity through increasing benefits, advantages and contributions of their resources and decreasing costs and expenses of their operations, activities and practices. It is likely to affect firms' business productivity. Lastly, firms with implementing budgetary participation concepts tend to have a superior performance in doing business. They can set their budgets for planning, control and measurement through valuable opinions of supervisor-subordinate exchanges which is fitting for existing competitive markets and environments. Thus, successful budgetary participation can encourage them to gain competitive advantage and obtain great business performance (Agbejule and Saarikoski, 2006). Accordingly, budgetary participation is important, and it is likely to have a positive relationship with resource utilization, operational effectiveness, business productivity, and firm performance. Therefore,

H1: The greater the budgetary participation is, the more likely firms will achieve better resource utilization.
H2: The greater the budgetary participation is, the more likely firms will achieve better operational effectiveness.
H3: The greater the budgetary participation is, the more likely firms will achieve better business productivity.
H4: The greater the budgetary participation is, the more likely firms will achieve better firm performance.

Resource Utilization

Resource is important and it becomes a source of firms' sustainable competitive advantage according to resource-based view theory (Barney, 1991). It plays a significant role in driving, determining and explaining their sustainable competitive advantage that links to superior performance. Thus, managing and utilizing resources effectively are reasonably considered. To beneficially utilize firms' resources, budgetary participation as one of valuable strategic business tool is applied to manage, allocate, transform, and exchange these resources. Thus, resource utilization is an important outcome of implementing budgetary participation in an organization. Resource utilization is defined as an ability of firms to use their resources extensively, frequently and appropriately in an organization-wide scale (Kim et al., 2010). It reflects how firms effectively employ resources in driving their operations, activities and practices in order to achieve competitive advantage and performance. In addition, resource allocation, interdependency assessment and expectation alignment are main components of resource utilization (Majumdar, 1998). Resource allocation focuses on an identification of specific resources towards activities that take place; interdependency assessment emphasizes an optimal combination of interdependent resources via activities; and expectations alignment is a convergence of economic incentive based on an exploitation of resources. Likewise, resource utilization of firms is concerned with exploitation and exploration (Tan and Zeng, 2009). Exploitation includes risk taking, experimentation, flexibility, discovery, and innovation while exploration comprises refinement, efficiency, implementation, and execution. Both are beneficial to firms' outcomes. Within limited resources of firms, resource utilization through budgetary participation is thus valuable and it is one tool to modify their capabilities to be responsive to environmental changes and to reestablish a proper alignment with the changing environments. Accordingly, better resource utilization is likely to have greater business outcome. Hence, resource utilization can encourage them to create effectiveness of business operations, promote productivity of their businesses and maintain and improve their performance. Thus, resource utilization is likely to have a positive effect on operational effectiveness, business productivity and firm performance. Therefore,

H5: The greater the resource utilization is, the more likely firms will achieve better operational effectiveness.
H6: The greater the resource utilization is, the more likely firms will achieve better business productivity.
H7: The greater the resource utilization is, the more likely firms will achieve better firm performance.

Operational Effectiveness

Budgetary participation explicitly contributes to firms' operational effectiveness. Greater budgetary participation is significantly related to more operational effectiveness. In this study, operational effectiveness refers to an ability of firms to establish processes, based on core capabilities within an organization by improving process outcome by leading and controlling the processes as well as measuring and improving the processes

(Santa et al., 2009). Firms with operational effectiveness can determine a value of delivery process and continuously improve this process through a better use of their resources while meeting their operational performance objectives, such as elimination of waste costs, quality improvement, flexible response to customer needs, speed time between request and delivery, and consistently performing processes as expected over time. Also, operational effectiveness is defined as a capacity to set process, based on core capabilities inside an organization that is looking after performance excellence on a continuous base (Santa et al., 2011). It can add value to firms' processes and continuously improve these processes in order to achieve excellent performance. Firms can benefit from operational effectiveness of implementing budgetary participation in maintaining and increasing their performance (Ferrer and Santa, 2012). Accordingly, operational effectiveness is required within increasing global competition, rapid technological development, customization, and speed to market of products and services. Firms have maintained their operational effectiveness via actual operation against their planned operation. They can perform very well, including cost reduction, quality enhancement, operational flexibility, process timeliness, and delivery reliability, in order to serve their customers better than competitors. Hence, more operational effectiveness tends to respond to customer needs better that reflect increased performance of firms. Thus, operational effectiveness is likely to have a positive effect on firm performance. Therefore,

H8: The greater the operational effectiveness is, the more likely firms will achieve better firm performance.

Business Productivity

Business productivity is a main outcome of implementing budgetary participation. It likely helps firms gain business productivity in an organization. Firms have implemented budgetary participation in order to create their business productivity that affects their performance. Interestingly, business productivity is defined as an important index for measuring an efficiency of business units in converting inputs into outputs (Chen and Liaw, 2001). It focuses on an evaluation of effective resource employment in firms' operation, activities and practices. Firms with business activity attempt to increase efficiency of resource utilization and their operation. Thus, business activity reflects to firms' abilities to measure an accomplishment in resource utilization and their competence. Moreover, business productivity refers to the amount of goods and services that a workforce produces in a given amount of time, resources, machines, and environment in order to enhance living standard improvement, increase economic growth production margin, achieve profit maximization, and obtain organizational competitiveness (Soloja et al., 2016). It explicitly increases value added content of products and services. Then, business productivity is a driving force for firms' growth, profitability and performance. Additionally, business productivity is a ratio of a volume measure of output to a volume of input use (Biege et al., 2013). It presents an assessment of the association between production of products and services and its factors used. More gap of this ratio as output compared to input means greater business productivity of firms in doing business. Accordingly, firms with more business productivity tend to have their performance better. Thus, business productivity is likely to have a positive effect on firm performance. Therefore,

H9: The greater the business productivity is, the more likely firms will achieve better firm performance.

Firm Performance

In this study, firm performance is the last consequence of implementing budgetary participation. As mention earlier, budgetary participation is positively related to firm performance. Successful budgetary participation drives firms to achieve an outstanding performance. Firm performance is an outcome of doing business efficiently, effectively and excellently in the competitive markets and environments. It consists of operational and financial performance. Operational performance reflects the underlying success factors ranging from quality control to cost management within firms that lead to competitive advantage in the long term, comprising a combination of customer satisfaction, quality management, cost management, and responsiveness while financial performance refers to how well firms use resources to generate outcomes as reflected in their financial statements, including sales growth, return on investment and market share growth (Wang et al., 2016). Thus, firms have focused on a participation in the budgeting process setting in order to increase resource utilization, operational effectiveness and business productivity that relate to superior firm performance.

Research Methods

A. Sample Selection Procedure and Data Collection

In this study, the population of the study are 210 finance businesses in Thailand from the Stock Exchange of Thailand and Bank of Thailand. Here, all finance businesses in Thailand are the samples of the study. These businesses include banks, insurance, investment, and security companies and related businesses. A mail survey procedure via questionnaire was used for data collection. The questionnaire describes the objectives of the study, explicitly determining the dateline of questionnaire returned and systematically following up for the questionnaires. Accounting executives (chief financial officers, accounting directors or accounting managers) of finance businesses in Thailand, as the key informants, have taken the highest responsibilities of accounting functions and other related activities in an organization. Regarding the questionnaire mailing, the valid mailing was 199 surveys, from which 185 responses were received. Of the surveys completed and returned, 178 were usable. The effective response rate was approximately 89.45%. The response rate for a mail survey, with an appropriate follow-up procedure, if greater than 20% is considered acceptable according to Aaker, Kumar, and Day (2001). To test potential non-response bias and to detect possible problems with non-response errors, a comparison of the first and the second wave data as recommended by Armstrong and Overton (1977) is used. In this regard, neither procedure showed significant differences because there were no statistically significant differences between first and second groups at a 95% confidence level as firm age ($t = 0.112$, $p > .05$), firm size ($t = 0.109$, $p > .05$) and firm capital ($t = 0.129$, $p > .05$).

B. Measures

All constructs were measured using a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree), except for firm age, firm size, and firm capital. Measurements of these constructs are self-developed from existing literature as shown in Appendix A. Firstly, budgetary participation is a process whereby subordinates are given the opportunities to get involved in and have influence on the setting process of budget parameters with management (Chong, 2002). Six-item scale was developed to assess how firms allow their subordinates to involve in the budget setting process by focusing on goal commitment, information sharing, communication opportunity, team orientation, and superior-subordinate relationship. Secondly, resource utilization is an ability of firms to use their resources extensively, frequently and appropriately in an organization-wide scale (Kim et al., 2010). Four-item scale was established to measure how firms employ their resources relating to resource allocation, interdependency assessment and expectations alignment. Thirdly, operational effectiveness is an ability of firms to establish processes, based on core capabilities within an organization by improving process outcome by leading and controlling the processes as well as measuring and improving the processes (Santa et al., 2009). Four-item scale was initialed to evaluate how firms determine a value of delivery process and continuously improve this process by meeting their operational performance objectives. Fourthly, business productivity is an important index for measuring an efficiency of business units in converting inputs into outputs (Chen and Liaw, 2001). Four-item scale was developed to gauge how firms produce in each amount of time, resources, machines, and environment in doing businesses. Lastly, firm performance is an outcome of doing business efficiently, effectively and excellently in the competitive markets and environments. Four-item scale was identified to assess how firms obtain customer satisfaction, sales growth, return on investment, and market share growth.

For the control variables, firm age (FA) may influence a firm's technological learning capacity, implementing business activities, actions and strategies, and the profitability of organizational operation (Zahra et al., 2000). It was measured by the number of years a firm has been in existence by using a dummy variable as less than 15 years = 0 and equal to or greater than 15 years = 1. Secondly, firm size (FS) may affect the ability to learn and diversify operation, and to compete and survive in the markets (Arora and Fosfuri, 2000). It was measured by the number of employees in a firm by using a dummy variable as less than 500 employees = 0 and equal to or greater than 500 employees = 1. Lastly, firm capital (FC) may impact the capacity of a firm to implement business methods and strategies in order to achieve competitive advantage and superior performance (Ussahawanitchakit, 2007). It was measured by the amount of money a firm has invested in doing business by using a dummy variable as less than 10,000 million baht = 0 and equal to or greater than 10,000 million baht = 1.

C. Methods

Firstly, factor analysis was implemented to assess the underlying relationships of many items and to determine whether they can be reduced to a smaller set of factors. Thus, all factor loadings as values of 0.67-0.94 are greater than the 0.40 cut-off and are statistically significant (Nunnally and Bernstein, 1994). Secondly, discriminant power was utilized to gauge the validity of the measurements by item-total correlation. In the scale validity, item-total correlations as values of 0.66-0.94 are greater than 0.30 (Churchill, 1979). Lastly, the reliability of the measurements was evaluated by Cronbach alpha coefficients. In the scale reliability, Cronbach alpha coefficients as values of 0.75-0.90 are greater than 0.70 (Nunnally and Bernstein, 1994). Accordingly, the scales of all measures express an accepted validity and reliability in this study. Table 1 presents the results for factor loadings, item-total correlation and Cronbach alpha for multiple-item scales used in this study.

To verify the relationships between budgetary participation and firm performance of finance businesses in Thailand, structural equation model (SEM) is considered as an appropriate approach to test these relationships. In this study, budgetary participation is an independent variable of the study, and resource utilization, operational effectiveness, business productivity, and firm performance are also dependent variables of the study. Accordingly, the results of this study are presented in the next section.

Table 1: Results of measure validation

Items	Factor Loadings	Item-total Correlation	Cronbach Alpha
Budgetary Participation (BP)	0.67-0.86	0.66-0.84	0.77
Resource Utilization (RU)	0.87-0.94	0.82-0.94	0.79
Operational Effectiveness (OE)	0.84-0.90	0.84-0.89	0.90
Business Productivity (BD)	0.76-0.94	0.75-0.94	0.86
Firm Performance (FP)	0.75-0.78	0.70-0.81	0.75

Results and Discussion

Table 2 presents the descriptive statistics and correlation matrix for all variables. Multicollinearity might occur when inter-correlation in each predict variable is more than 0.80, which is a high relationship (Hair et al., 2010). The correlations ranging from 0.15 to 0.64 at the $p < 0.05$ level, which means that the possible relationships of the variables in the conceptual model could be tested. Thus, there are no substantial multicollinearity problems encountered in this study.

Table 2: Descriptive statistics and correlation matrix

Variables	BP	RU	OE	BD	FP
Mean	4.12	3.86	3.82	3.88	4.15
Standard Deviation	0.40	0.61	0.66	0.61	0.46
Budgetary Participation (BP)					
Resource Utilization (RU)	0.50***				
Operational Effectiveness (OE)	0.30**	0.64***			
Business Productivity (BD)	0.27	0.60***	0.36**		
Firm Performance (FP)	0.15	0.32**	0.27	0.39***	

Table 3: Results of path coefficients and hypotheses testing

Hypotheses	Relation-ships	Coefficients	t-value	Results
H1	BP → RU	1.70***	3.36	**S**
H2	BP → OE	0.14	1.49	**NS**
H3	BP → BD	0.20*	1.89	**S**
H4	BP → FP	0.03	0.18	**NS**
H5	RU →OE	0.34***	2.65	**S**
H6	RU →BD	0.24**	2.15	**S**
H7	RU → FP	0.10	1.36	**NS**
H8	OE → FP	0.28**	2.40	**S**
H9	BD → FP	0.12	1.23	**NS**

Note that: S = Supported, NS = Not Supported

Figure 2: A summary of the budgetary participation-firm performance relationships

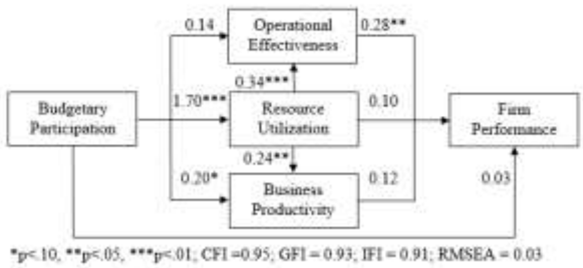


Table 3 presents the results of path coefficients and hypotheses testing of the research relationships. Also, a summary of the budgetary participation-firm performance relationships is shown in Figure 2. In this study, the goodness of fit of the models, including the goodness of fit index (GFI), the comparative fit index (CFI), the incremental fit index (IFI), and the root mean square error of approximation (RMSEA) are considered (Herda and Lavelle, 2012). This study shows that the initial test of the measurement model resulted in a good fit to the data (CFI = 0.95; GFI = 0.93; IFI = 0.91; RMSEA = 0.03). Firstly, CFI values always lie between 0 and 1, with values over 0.90 indicating a relatively good fit (Bentler, 1990). Secondly, GFI value is an index that ranges from 0 to 1, with value over 0.90 indicating a relatively good fit (Byrne, 1998). Thirdly, IFI values exceeding 0.90 indicate a relatively good fit (Kline, 1998). Lastly, a RMSEA value of less than 0.05 indicates a close fit and less than 0.08 suggests a marginal fit (Bollen and Long, 1993).

Budgetary participation plays a significant role in determining, driving and explaining resource utilization and business productivity. It has a positive effect on resource utilization (b = 1.70, $p < 0.01$). According to a study of Wentzel (2002), budgetary participation is a valuable strategic tool for helping firms efficiently allocate their resources and assets through fairness and justice of the budget setting process. Firms with successful budgetary participation implementation are likely to gain maximized resource utilization within the competitive markets and environments. *Therefore, Hypothesis 1 is supported.* Likewise, budgetary participation positively affects firms' business productivity (b = 0.64, $p < 0.06$). It has a key determinant of business productivity. In existing literature, budgetary participation can help firms create business productivity via matching a balance between resource use and value creation within business operation, practices and activities in order to increase benefits, advantages and contributions of their resources and decrease costs and expenses of their operation, activities and practices (Breaux et al., 2011). Thus, firms have effectively implemented budgetary participation to achieve their productivity in doing business. *Therefore, Hypothesis 3 is supported.*

In contrast, budgetary participation has no effects on operational effectiveness and firm performance while previous research mentions that it has a positive relationship with them. In a study by Kung et al. (2013), budgetary participation can encourage firms to meet their operational objectives, goals and targets via cooperation, coordination and integration of supervisors and subordinates. However, goal differences of each department and unfitted coordination of supervisors and subordinates may occur in the budget setting process and are likely to build several ways to perform their operation, activities and practices. They may become obstacles for achieving their operational effectiveness. Accordingly, budgetary participation has no influence on operational effectiveness (b = 0.54, $p < 0.14$). *Therefore, Hypothesis 2 is not supported.* Similarly, budgetary participation is not related to firm performance (b = 0.03, $p < 0.86$). Within the literature reviews of budgetary participation, firm performance is a main outcome of successfully implementing budgetary participation. Firms can set their budgets for planning, control and measurement through valuable opinions of supervisor-subordinate exchanges fitting with existing environments (Agbejule and Saarikoski, 2006). Thus, they tend to gain competitive advantage and obtain great business performance through the participative budget setting process. However, budgetary participation does not directly link to firm performance. It seems to have an indirect effect on firm performance through resource utilization and operational effectiveness according to Hypotheses 1, 5 and 8. Thus, budgetary participation is significantly related to resource utilization; resource utilization is importantly interacted with operational effectiveness; and operational effective is critically connected with firm performance. *Therefore, Hypothesis 4 is not supported.*

To verify the relationships among resource utilization, operational effectiveness, business productivity, and firm performance, this study shows that resource utilization has a significant positive relationship with both operational effectiveness and business productivity, but it has no impact on firm performance. Firstly, resource utilization is an ability of firms to use their resources extensively, frequently and appropriately in an organization-wide scale for driving their operation, activities and practices in order to achieve competitive advantage and performance (Kim et al., 2010). With limited resources, firms need to allocate their resources efficiently through exploitation and exploration of resources. More successful resource allocation is likely to have greater resource utilization. Hence, resource utilization can encourage firms to create effectiveness of business operation and promote productivity of their business. Thus, it has a positive influence on operational effectiveness (b = 0.34, $p < 0.01$) and business productivity (b = 0.24, $p < 0.04$). *Therefore, Hypotheses 5-6 are supported.* Secondly, resource utilization is not related to firm performance (b = 0.10, $p < 0.18$). According to Hypothesis 8, resource utilization has an indirect effect on firm performance by using operational effectiveness as a mediator while it could not directly affect firm performance. *Therefore, Hypothesis 7 is not supported.*

In addition, operational effectiveness has an important effect on firm performance (b = 0.28, $p < 0.02$). Greater operational effectiveness is positively related to firm performance. Firms with operational effectiveness tend to achieve superior firm performance. In this study, operational effectiveness is an ability of firms to establish processes, based on core capabilities within an organization by improving process outcome by leading and controlling the processes as well as measuring and improving the processes (Santa et al., 2009). It can add value to firms' processes and continuously improve these processes in order to achieve excellent performance via cost reduction, quality enhancement, operational flexibility, process timeliness, and delivery reliability. *Therefore, Hypothesis 8 is supported.* Also, business productivity explicitly encourages firms to gain superior performance because it focuses on an evaluation of effective resource employment in firms' operation, activities and practices by increasing value added content of products and services. It is a main determinant of driving firm performance (Soloja et al., 2016). However, business productivity has no relationship with firm performance (b = 0.12, $p < 0.22$). Within business productivity, firms are likely to measure an efficiency of business units in converting inputs into outputs. This efficiency may not explain a changing level of their performance. *Therefore, Hypothesis 9 is not supported*.

Contributions and Directions for Future Research

A. Theoretical Implication, Limitations and Directions for future research

This study applies the theory of resource-based view of the firms in explaining the budgetary participation-firm performance relationships. The results of the study confirm that budgetary participation is a main source of firms' competitive advantage. Likewise, this study presents the five constructs of budgetary participation, resource utilization, operational effectiveness, business productivity, and firm performance in the same conceptual model even though some relationships are not supported. However, the limitations of the study are also discussed. In this study, 178 finance businesses in Thailand are the samples of the study because there is a limited database of these businesses. The small sample size may affect the power of the test and the reliability of the study. Thus, future research may need to collect data from larger population in order to increase the contributions and generalizability of the study. To verify and expand the research relationships, future research may need to do more literature review that links to the relationships among budgetary participation, resource utilization, operational effectiveness, business productivity, and firm performance together. Next, future research may need to search for dimension of budgetary participation and test the effects of these dimensions on business outcome. For proving the generalizability of the study, future research may need to collect data from different population or multi-group of populations for testing a comparative study.

B. Managerial Implication

This study explicitly contributes to managerial implication. According to the research results, firms could implement the budget setting process through budgetary participation in building sustained competitive advantage and gaining superior performance. To meet and achieve the goals of budgetary participation implementation, firms need to promote their employees in studying and understanding the concepts, benefits and contributions of budgetary participation and allocate their resources and capabilities to the implementation of budgetary participation very well. To obtain a successful implementation of budgetary participation, executives of firms must also pay attention to creating proactive vision, transformational leadership, organizational culture, and continuous learning for supporting this implementation. Great successful implementation is a significant determinant of firms' outcome while the aforementioned factors become important antecedents of implementing budgetary participation. Thus, the executives need to apply budgetary participation in an organization and use it as a valuable strategic business tool in the competitive markets and environments.

Conclusion

Budgetary participation is an important strategic tool of business operation, activities and practices and it plays a significant role in driving, explaining and determining firms' outcome. Hence, the objective of this study is to examine the effect of budgetary participation on resource utilization, operational effectiveness, business productivity, and firm performance of finance businesses in Thailand. In this study, 178 finance businesses in Thailand are the samples of the study. The results indicate that budgetary participation significantly affects resource utilization and it is importantly related to business productivity. In contrast, budgetary participation has no effect on either operational effectiveness or firm performance. Also, resource utilization has a critical influence on operational effectiveness and business productivity, but it does not affect firm performance. While operational effectiveness has an important impact on firm performance, business productivity has no influence on firm performance. Accordingly, this study confirms that budgetary participation is a main source of competitive advantage within the theory of resource-based view of the firms. For achieving managerial implication, executives of firms need to apply budgetary participation as a valuable strategic business tool in business operation, activities and practices through the creation of proactive vision, transformational leadership, organizational culture, and continuous learning. Likewise, they need to allocate more resources and assets to budgetary participation in order to gain a success of its implementation.

Appendix A
Measurement of all variables

Items
Firm Performance (FP) 1. Our customers have satisfied our services continuously. 2. Our sales have outstandingly grown compared with previous business operations. 3. We have gained return on investment better than our competitors. 4. Our market share has importantly increased from past to present.
Budgetary Participation (BP) 1. We believe that the participative budget setting process can increase the benefits, contributions and advantages of business operations, activities and practices. 2. We can encourage subordinates and employees to have goal commitment in an organization through the participative budget setting process. 3. In the participative budget setting process, we can exchange, share and communicate our business information to our employees effectively. 4. We can open opportunities for employees to present their ideas, needs and competencies within the participative budget setting process. 5. We can promote our employees to join, work and integrate their duties and functions together in the participative budget setting process. 6. We can efficiently build the relationships between superiors and subordinates within the participative budget setting process.

Items
Resource Utilization (RU) 1. We can allocate our resources, assets and investments to departments and subunits efficiently. 2. Within limited resources, we can enhance an optimal combination of interdependent resources via activities. 3. We can appropriately align our resources in an organization being responsive to environmental changes effectively. 4. We can support our subunits to collaborate, integrate and use the resources and assets together.
Operational Effectiveness (OE) 1. We can gain operational success through a value of delivery process. 2. We can improve our operations continuously within the rigorously competitive environments. 3. We can meet our operational objectives, goals and targets excellently. 4. We can achieve our operational vision and policy successfully.
Business Productivity (BD) 1. We can increase efficiency of business units in converting inputs into outputs. 2. We can create an amount of goods and services that a workforce produces in a given amount of time, resources, machines, and environments. 3. We can improve our maximized business outcomes within limited resources and assets. 4. We can build more gap of the ratio as output compared to input in doing businesses.

References

Aaker, D.A., V. Kumar, and G.S. Day, 2001, *Marketing Research*. New York: John Wiley and Sons.

Agbejule, A., and L. Saarikoski, 2006, "The Effect of Cost Management Knowledge on the Relationship between Budgetary Participation and Managerial Performance." *The British Accounting Review*, 38, 427-440.

Armstrong, J.S., and T.S. Overton, 1977, "Estimating Non-Response Bias in

Mail Surveys." *Journal of Marketing Research*, 14(3), 396-402.

Arora, A., and A. Fosfuri, 2000, "Wholly Owned Subsidiary versus Technology Licensing in the Worldwide Chemical Industry." *Journal of International Business Studies*, 31(4), 555-572.

Barney, J., 1991, "Firm Resources and Sustained Competitive Advantage." *Journal of Management*, 17(1), 99-120.

Biege, S., G. Lay, C. Zanker, and T. Schmall, 2013, "Challenges of Measuring Service Productivity in Innovative, Knowledge-Intensive Business Services." *The Service Industries Journal*, 33(3-4), 378-391.

Bentler, P.M., 1990, "Comparative Fit Indices in Structural Models." *Psychological Bulletin*, 107, 238-246.

Bollen, K.A. and J.S. Long, 1993, *Testing Structural Equation Models*. California: Sage Publications.

Breaux, K.T., D.W. Finn, and A. Jones III, 2011, "Budgetary Commitment as a Mediating Influence." *Journal of Managerial Issues*, XXIII(4), 426-446.

Byrne, B.M., 1998, *Structural Equation Modeling with LISREL, Prelis and Simplis: Basic Concepts, Applications and Programming*. New Jersey: L. Erlbaum Associates.

Chen, L., and S. Liaw, 2001, "Investigating Resource Utilization and Product Competence to Improve Production Management." *International Journal of Operations and Production Management*, 21(9), 1180-1194.

Cadez, S., and C. Guilding, 2012, "Strategy, Strategic Management Accounting and Performance: A Configurational Analysis." *Industrial Management and Data Systems*, 112(3), 484-501.

Chong, V. K., 2002, "A Note on Testing a Model of Cognitive Budgetary Participation Processes Using a Structural Equation Modeling Approach." *Advances in Accounting*, 19, 27-51.

Churchill, G.A., Jr, 1979, "A Paradigm for Developing Better Measures of Marketing Constructs." *Journal of Marketing Research*, 16(February), 64–73.

Derfuss, K., 2009, "The Relationship of Budgetary Participation and Reliance on Accounting Performance Measures with Individual-Level Consequent Variables: A Meta-Analysis." *European Accounting Review*, 18(2), 203-239.

Ferrer, M., and R. Sata, 2012, "The Interrelatedness of Innovation Competencies, Operational Effectiveness and Organizational Process." *Review of Management Innovation and Creativity*, 5(14), 35-49.

Hair, J.F., W.C. Black, B.J. Babin, and R.E. Anderson, 2010, *Multivariate Data Analysis: A Global Perspective* (7th ed). New Jersey: Person Prentice Hall.

Herda, D.N., and J.J. Lavelle, 2012, "The Auditor-Audit Firm Relationship and Its Effect on Burnout and Turnover Intention." *Accounting Horizons*, 26(4), 707-723.

Jermias, J., and F. Yigit, 2013, "Budgetary Participation in Turkey: The Effects of Information Asymmetry, Goal Commitment and Role Ambiguity on Job Satisfaction and Performance." *Journal of International Accounting Research*, 12(1), 29-54.

Kim, N., J.H. Pae, J.K. Han, and R.K. Srivastava, 2010, "Utilization of

Business Technologies: Managing Relationship-Based Benefits for Buying and Supplying Firms." *Industrial Marketing Management*, 39, 473-484.

Kline, R.B., 1998, *Principles and Practices of Structural Equation Modeling*. New York: The Guilford Press.

Kung, F., C. Huang, and C. Cheng, 2013, "An Examination of the Relationships among Budget Emphasis, Budget Planning Models and Performance." *Management Decision*, 51(1), 120-140.

Lachmann, M., T. Knauer, and R. Trapp, 2013, "Strategic Management Accounting Practices in Hospitals: Empirical Evidence on Their Dissemination under Competitive Market Environments." *Journal of Accounting and Organizational Change*, 9(3), 336-369.

Langfield-Smith, K., 2008, "Strategic Management Accounting: How Far Have We Come in 25 Years?" *Accounting, Auditing and Accountability Journal*, 21(2), 204-228.

Lavarda, C.E.F., and D.M. Almeida, 2013, "Budget Participation and Informational Asymmetry: A Study in a Multinational Company." *Brazilian Business Review*, 10(2), 72-94.

Ma, Y., and M. Tayles, 2009, "On the Emergence of Strategic Management Accounting: An Institutional Perspective." *Accounting and Business Research*, 39(5), 473-495.

Mah'd, O., H. Al-Khadash, M. Idris, M., and A. Ramadan, 2013, The Impact of Budgetary Participation on Managerial Performance: Evidence from Jordanian University Executives." *Journal of Applied Finance and Banking*, 3(3), 133-156.

Majumdar, S.K., 1998, "On the Utilization of Resources: Perspectives from the U.S. Telecommunications Industry." *Strategic Management Journal*, 19(9), 809-831.

Nunnally, J.C., and I.H. Bernstein, 1994, *Psychometric Theory*. New York: McGraw-Hill.

Santa, R., M. Ferrer, P. Bretherton, and P. Hyland, 2009, "The Necessary Alignment Between Technology Innovation Effectiveness and Operational Effectiveness." *Journal of Management and Organization*, 15, 155-169.

Scavarda, F. Zhao, and H. Skoko, 2011, "Managing the Operational Effectiveness in Services Using Technological Innovation." *International Journal of e-Business Management*, 5(1), 16-32.

Soloja, O.M., F.E. Idowu, and A.E. James, 2016, "Exploring the Relationship Between Leadership Communication Style, Personality Trait and Organizational Productivity."*Serbian Journal of Management*, 11(1), 90-117.

Tan, J., and Y. Zeng, 2009, "A Stage-Dependent Model of Resource Utilization, Strategic Flexibility and Implications for Performance Over Time: Empirical Evidence from a Transitional Environment." *Asia Pacific Journal of Management*, 26, 563-588.

Ussahawanitchakit, P., 2007, "The Influences of Management Capability on Export Performance of Leather Businesses in Thailand." *Review of Business Research*, 7(5), 1-10.

Wang, Z., P.N. Sharma, and J. Cao, 2016, "From Knowledge Sharing to Firm Performance: A Predictive Model Comparison." *Journal of Business Research*, 69, 4650-4658.

Wentzel, K., 2002, "The Influence of Fairness Perceptions and Goal Commitment on Managers' Performance in a Budget Setting." *Behavioral Research in Accounting*, 14, 247-271.

Zahra, S.A., R.D. Ireland, and M.A. Hitt, 2000, "International Expansion by New Venture Firms: International Diversity, Mode of Market Entry, Technological Learning, and Performance." *Academy of Management Journal*, 43(5), 925-950.