

The Utilization of Accounting Information for Business Forecasting among Small and Medium Enterprises (SMEs) in Nong Khaem District, Bangkok

Murray Davis¹, Thanawan Changkomchome², Thikamporn Thaweedeche³,
Kawissara Tanskul⁴

¹*Independent Scholar, Australia*

²*Department of Accounting, Faculty of Accountancy, Thonburi University,
thanawan_ac@thonburi-u.ac.th*

³*Department of Accounting, Faculty of Accountancy, Thonburi University*

⁴*Department of General Education Affairs, Thonburi University, kawissara@thonburi-u.ac.th*

Abstract

This study is a quantitative research project aimed at investigating the effective utilization of accounting information for business forecasting within small and medium enterprises (SMEs). Data were collected via questionnaires from a sample group of 400 participants, consisting of executives, supervisors, and accountants from SMEs registered in Nong Khaem District, Bangkok. The statistical analysis employed Stepwise Multiple Regression Analysis to test the hypotheses.

The findings indicate that the utilization and analysis of accounting information- specifically data from income statements, statements of financial position, and statements of cash flows, along with trend analysis and financial ratio analysis- significantly contribute to business forecasting for SMEs in Nong Khaem. The adjusted coefficient of determination (Adjusted R Square), used to compare models with varying numbers of predictors, was 0.802. This suggests that these variables can collectively explain 80.2% of the positive influence on effective business forecasting. The specific accounting components utilized for forecasting, in order of statistical significance (at the 0.05 level), include: trend analysis ($b=.528$), financial ratio analysis ($b=.261$), income statement data ($b=.180$), balance sheet data ($b=.099$), and statement of cash flows ($b=.088$).

Keywords: Accounting Information, Business Forecasting, Trend Analysis, Financial Ratio Analysis

Introduction

In today’s rapidly evolving global society, the application of accounting information in business forecasting has been a long-standing practice. Since the early stages of commerce, entrepreneurs have sought to predict the future of their enterprises to facilitate strategic planning and critical decision-making, such as investments, business expansion, or tactical adjustments. Amidst highly competitive economic conditions and swift technological advancements, businesses require tools that support informed, reliable, and accurate decision-making. Accounting data—including financial statements, income statements, and cash flow statements—are widely recognized as essential resources for analyzing and predicting future financial performance.

When businesses integrate these data points into business forecasting to anticipate future impacts, such as revenue growth, cost control, or cash flow management, they can develop appropriate strategic plans and better navigate market uncertainties. Regarding Informed Decision-Making, accounting information enables management to analyze financial performance and make rational choices, particularly in forecasting profits or future revenue-generating capacity. Furthermore, in terms of Risk Management, the use of accounting data assists in assessing investment or operational risks through cash flow forecasting, solvency analysis, and the calculation of financial ratios, thereby evaluating the business’s resilience against unforeseen circumstances. For Long-term Business Planning, forecasted accounting information empowers businesses to execute effective long-term strategies, specifically concerning business expansion, new project investments, or strategic partnership decisions.

Currently, Thai SMEs account for 95% of all enterprises and contribute to over 50% of total employment. SMEs are therefore vital for job creation, income generation, and serve as the foundation for large-scale business development. Approximately 99.5% of entrepreneurs in Thailand—totaling about 2,000,000 entities—are SMEs. While the primary GDP drivers are approximately 2,000 large-scale enterprises, SMEs involve a larger portion of the population, supporting roughly 70% of employment. Most SME production (70%) is sold domestically, with 30% for export, indicating that the primary market for SMEs is domestic.

The primary challenges for Thai SMEs lie in inefficient management and administration, particularly regarding organizational management, finance, accounting, marketing, and human resources. A core issue is the lack of accounting information utilization for management, specifically for forecasting and decision-making. In the current climate of intense economic competition, survival depends on high efficiency. Consequently, new entrepreneurs entering highly competitive markets face significant operational difficulties. Research indicates that accounting information plays a crucial role in executive decision-making, especially in cost planning and sales forecasting. In SMEs, it was found that executives utilize accounting information for various decisions at a high level, where data quality (relevance and comparability) directly influences decision-making efficiency.

Potential issues include incomplete or inaccurate data; accounting information used for forecasting must maintain high precision, as errors can lead to flawed business decisions. Additionally, forecasting relies heavily on assumptions regarding factors such as market growth, inflation, or changes in government policy; incorrect assumptions can result in forecasts that do not align with reality. Challenges also arise from Big Data management, where analyzing complex accounting datasets can be difficult, especially amidst rapid fluctuations. Furthermore, Technological Adaptation requires continuous updates to accounting systems, necessitating investment in new tools to meet modern forecasting demands.

Given the aforementioned circumstances, the researcher is interested in studying the utilization of accounting information for business forecasting. This study is of paramount importance as it aims to enhance the competitive advantage of these enterprises, enabling entrepreneurs to make precise strategic decisions and establish long-term financial stability. Furthermore, it serves as a guideline for promoting and developing business potential at both local and national levels.

Research Objectives

1. To investigate the utilization of various types of accounting financial statements and financial statement analysis for business forecasting among small and medium-sized enterprise (SME) entrepreneurs in the Nong Khaem District.

2. To study the application of accounting information and data analysis for effective business forecasting among small and medium-sized enterprise (SME) entrepreneurs in the Nong Khaem District.

Expected Benefits

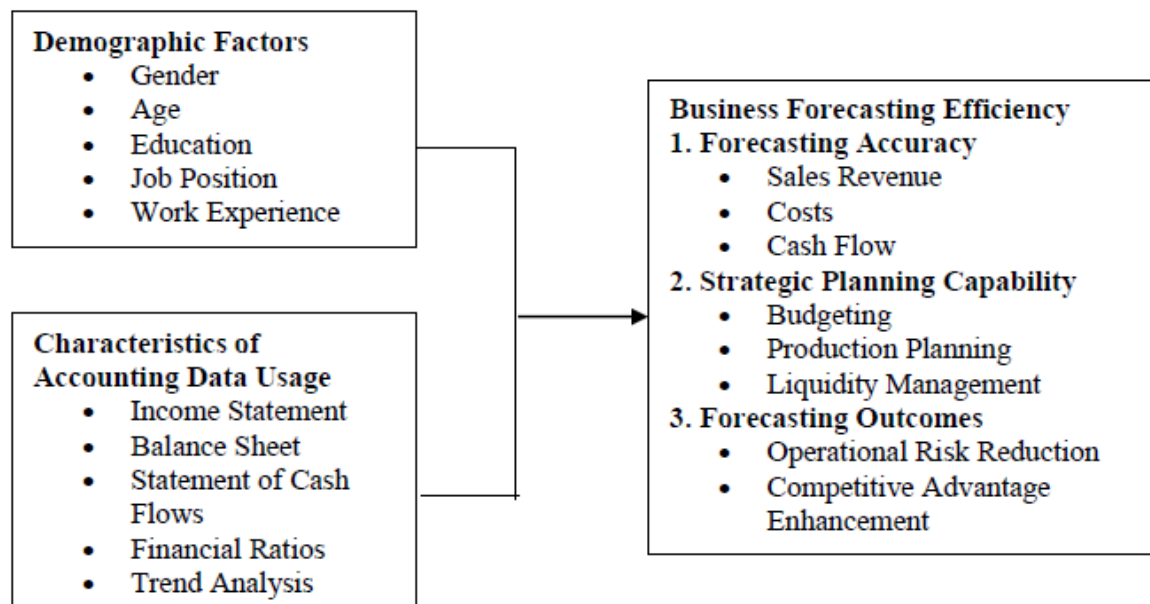
1. To utilize income statement data, including sales trends, costs, liquidity, liabilities, and profitability, to enhance operational efficiency, inform investment expansion decisions, and manage financing, as well as to project future financial performance.

2. To serve as supportive data for the formulation of government policies aimed at promoting and developing Small and Medium Enterprises (SMEs).

3. To improve the survival rate of SMEs and mitigate the risk of business failure.

4. To strengthen the foundation of the grassroots economy and enhance overall economic resilience.

Conceptual Framework



Research Methodology

This study employs a quantitative research design. The development of the conceptual framework was initially conducted through documentary research to

examine the utilization of various types of financial statements and financial statement analysis for effective business forecasting among small and medium-sized enterprise (SME) entrepreneurs in the Nong Khaem District. The researcher synthesized relevant concepts and theories from extensive literature reviews, which served as the foundation for developing the research instruments used for data collection in this study.

Population and Sample

The target population for this study consists of executives and accounting supervisors within small and medium-sized enterprises (SMEs) registered in the Bangkok Metropolitan Area. The scope includes enterprises established between 2016 and 2024 that maintain active status. Given that the exact population size is unknown, the sample size was determined using W.G. Cochran's formula for an unknown population. The calculation was based on a 95% confidence level with a 5% margin of error. The resulting minimum required sample size was 384 participants to ensure a proportionate estimation with a maximum error of 5% at the specified confidence level. To facilitate data evaluation and analysis, the researcher collected data from a total sample of 400 respondents, which exceeds the minimum requirement of 384 and thus satisfies the specified statistical criteria.

Research Instruments

The primary tool for data collection in this study is a structured questionnaire. The variables within the questionnaire were derived and synthesized from an analysis of relevant theories, literature, articles, and previous research. The instrument is divided into three distinct sections as follows:

Section 1: General information and demographic profile of the respondents.

Section 2: Information regarding the utilization of accounting data, specifically financial statements (Income Statement, Balance Sheet, and Statement of Cash Flows), and financial analysis methods (Trend Analysis and Financial Ratio Analysis) for business forecasting among SMEs in the Nong Khaem District.

Section 3: Information regarding business forecasting efficiency in various dimensions, including accuracy, strategic planning, and practical forecasting applications for SMEs in the Nong Khaem District.

Quality Control of the Research Instrument

The researcher conducted quality assessments of the questionnaire through two primary tests: Content Validity and Reliability.

Content Validity: The questionnaire was evaluated by three academic experts. Following their recommendations, necessary revisions were made to the items. The resulting Index of Item-Objective Congruence (IOC) ranged between 0.67 and 1.00, confirming that the content is valid and suitable for data collection.

Reliability: For Section 2, after verifying content validity, a pilot test was conducted with 30 respondents in Nakhon Pathom Province. The analysis yielded a Cronbach’s Alpha coefficient of 0.966, indicating a high level of internal consistency. This demonstrates that the questionnaire is highly reliable and appropriate for administration to the actual sample group.

Data Collection Procedures

For the quantitative data collection, the researcher distributed the questionnaires through two primary channels: an electronic format via Google Forms and manual distribution. The questionnaires were administered directly to small and medium-sized enterprises (SMEs) within the Nong Khaem Entrepreneurs Club. The sampling process employed a non-probability sampling technique, specifically utilizing convenience sampling for data acquisition.

Statistical Data Analysis

Once the data collection process was completed, the data were processed and analyzed. The statistical analysis is divided into three primary sections as follows:

Questionnaire Section 1

Demographic Profile of Respondents The researcher employed descriptive statistics to summarize the general information of the respondents. The analysis includes the calculation of frequency and percentage distributions.

Questionnaire Section 2 and Section 3

Descriptive Statistics: To describe the utilization of accounting information for business forecasting among small and medium-sized enterprises (SMEs) in the Nong Khaem District by analyzing the fundamental statistics of both independent and dependent variables. These statistical measures include the arithmetic mean and

standard deviation (Standard Deviation), utilizing a 5-point Likert scale which consists of five levels: Most Important, Very Important, Moderately Important, Slightly Important, and Least Important.

Data Interpretation Criteria: The researcher will utilize the calculated mean scores and interpret the results based on probability-based principles (Saryos & Saryos, 1995, p. 100) and the conceptual framework of Best (1977, as cited in Somprayoon & Somprayoon, 2003, p. 68). The criteria for interpreting the mean scores are as follows:

Mean Range	Interpretation
4.21-5.00	Indicates the highest level of importance
3.41-4.20	Indicates a high level of importance
2.61-3.40	Indicates a moderate level of importance
1.81-2.60	Indicates a low level of importance
1.00-1.80	Indicates the lowest level of importance

Research Results

Table 1 shows the personal characteristics of the respondents.

(n=400)

	Variables	Frequency (n)	Percentage (%)
Gender	Male	243	60.8
	Female	157	39.2
	Total	400	100.0
Age	Under 30 years	64	16
	31 – 40 years	140	35.0
	41 – 50 years	168	42.0
	51 years and above	28	7.0
	Total	400	100.0
Educational level	Below Bachelor’s Degree	116	29.0
	Bachelor’s Degree	240	60.0
	Master’s Degree or Higher	44	11.0
	Total	400	100.0
Job Position	Business Owner	56	14.0
	Manager	52	13.0
	Supervisor	218	54.5
	Staff / Employee	74	18.5
	Total	400	100.0
Work Experience	Less than 5 years	108	27.0
	5 – 10 years	78	19.5
	11 – 20 years	168	42.0
	More than 20 years	46	11.5
	Total	400	100.0
Business Size	Small Enterprise (fewer than 50 employees)	145	36.2
	Medium Enterprise (51–200 employees)	255	63.8
	Total	400	100.0

According to Table 1, the majority of the respondents were male (60.8%). Most were aged between 41 and 50 years (42.0%), held a Bachelor’s degree (60.0%), and occupied supervisor positions (54.5%). Regarding work experience, the largest group had between 11 and 20 years of experience (42.0%), and the majority worked in medium-sized businesses with 51–200 employees (63.8%).

Table 2 shows the basic statistics for the analysis of accounting information utilization for business forecasting. (n=400)

No.	Items	\bar{X}	S.D.	Interpretation	Rank
1	Historical revenue and expense data from the Income Statement are used to forecast future performance.	4.33	.921	Highest	1
2	Profit and loss trends from the Income Statement allow management to assess future business directions.	4.23	.942	Highest	7
3	Utilizing Income Statement data for forecasting helps reduce discrepancies in sales and cost planning.	4.29	.908	Highest	2
4	The business uses assets, liabilities, and equity data from the Balance Sheet to assess future financial stability.	4.14	.942	High	13
5	Asset and liability structure data from the Balance Sheet help management forecast liquidity and financial risks.	4.2	.909	High	9
6	Utilizing the Balance Sheet for forecasting supports decision-making regarding investments, loans, and business expansion.	4.18	.935	High	12
7	Cash flows from operating activities are used to forecast the business's future liquidity.	4.21	.885	Highest	8
8	Cash inflow and outflow data from the Statement of Cash Flows help predict debt-servicing ability and estimate upcoming expenses.	4.23	.863	Highest	6
9	Utilizing the Statement of Cash Flows for forecasting reduces liquidity risks and supports financial planning.	4.24	.873	Highest	5
10	Financial ratios are used to forecast the business's future financial status.	4.19	.914	High	10
11	Analyzing historical financial ratio trends enables the prediction of business risks and opportunities.	4.25	.867	Highest	3
12	Utilizing financial ratios for forecasting supports decision-making in financial planning and business strategies.	4.24	.888	Highest	4
13	Historical trends of revenue, costs, or profits from accounting data are used to forecast future performance.	4.13	.940	High	14
14	Analyzing changes in accounting data over continuous periods can predict the business's direction.	4.18	.890	High	11
15	Utilizing trend data for forecasting reduces uncertainty and supports strategic planning decisions.	4.11	.917	High	15
	Total	4.21	.909	Highest	

According to Table 2, the results indicate that the use of historical revenue and expense data from the Income Statement to forecast future performance was ranked first, with the highest level of agreement ($\bar{X} = 4.33$, S.D. = 0.921). This was followed by

the utilization of Income Statement data for forecasting to reduce discrepancies in sales and cost planning, which also stood at the highest level ($\bar{X} = 4.29$, S.D. = 0.908). Additionally, the analysis of historical financial ratio trends to predict business risks and opportunities was ranked third, also reaching the highest level ($\bar{X} = 4.25$, S.D. = 0.867).

Table 3 shows the basic statistics for the analysis of business forecasting efficiency.

No.	Items	\bar{x}	S.D.	Interpretation	Rank
1	The business uses Income Statement and trend data to accurately forecast sales.	4.16	.960	High	7
2	The business uses Income Statement data to accurately forecast costs and expenses.	4.18	.898	High	5
3	The business uses operating cash flow data to accurately forecast future cash flows.	4.2	.873	High	3
4	The business utilizes accounting information to prepare budgets for advance planning.	4.15	.901	High	8
5	The business utilizes accounting information for production planning and forward-looking strategies.	4.19	.875	High	4
6	The business utilizes accounting information for liquidity management planning.	4.25	.841	Highest	1
7	The business utilizes accounting information for forecasting to reduce operational risks.	4.16	.936	High	6
8	The business utilizes accounting information to enhance competitive advantage.	4.21	.862	Highest	2
	Total	4.2	.874	High	

According to Table 3, the business utilizes accounting information for liquidity management planning at the highest level ($\bar{X} = 4.25$, S.D. = 0.841). This is followed by the use of accounting information to enhance competitive advantage ($\bar{X} = 4.21$, S.D. = 0.862). Ranked third is the utilization of operating cash flow data to accurately forecast the business's cash flows, which stands at a high level ($\bar{X} = 4.20$, S.D. = 0.873).

Table 4 presents the results of Stepwise Multiple Regression Analysis investigating the factors of accounting information utilization and business forecasting efficiency.

Business Forecasting Performance	B	S.E.	t	Sig.
Constant	.218	.102	2.130	.034
Trend Analysis	.528	.061	8.593	.00
Financial Ratio Analysis	.261	.039	6.613	.00
Income Statement Data	.180	.029	6.107	.00
Balance Sheet Data	.099	.037	2.665	.00
Statement of Cash Flows Data	.088	.043	2.049	.041
R-Square = 0.804 Adjusted R-Square = 0.802 F = 323.547 Sig. = 0.000*				

*Statistically significant at the 0.05 level

According to Table 4, the utilization and analysis of accounting information—including data from the Income Statement, Balance Sheet, and Statement of Cash Flows, as well as Trend Analysis and Financial Ratio Analysis among Small and Medium Enterprises (SMEs) in the Nong Khaem district—resulted in an Adjusted R Square of 0.802. This indicates that these factors can effectively explain 80.2% of the positive influence on business forecasting performance. The remaining 19.8% is attributed to other variables not included in this study. The regression equation can be formulated as follows:

$$Y = .218 + .528 (T) + .261 (Ra) + .180 (PL) + .099 (BS) + .088 (CF)$$

Where: Y = Business Forecasting Effectiveness

T = Trend Analysis

Ra = Financial Ratio Analysis

PL = Income Statement Data

BS = Balance Sheet Data

CF = Statement of Cash Flows Data

Trend Analysis (b = 0.528): A one-unit increase in Trend Analysis results in a 0.528 unit increase in business forecasting effectiveness.

Financial Ratio Analysis (b = 0.261): A one-unit increase in Financial Ratio Analysis results in a 0.261 unit increase in business forecasting effectiveness.

Income Statement Data ($b = 0.180$): A one-unit increase in the use of Income Statement data results in a 0.180 unit increase in business forecasting effectiveness.

Balance Sheet Data ($b = 0.099$): A one-unit increase in the use of Balance Sheet data results in a 0.099 unit increase in business forecasting effectiveness.

Statement of Cash Flows Data ($b = 0.088$): A one-unit increase in the use of Statement of Cash Flows data results in a 0.088 unit increase in business forecasting effectiveness.

Summary and Discussion

According to the Multiple Regression Analysis, the model yielded an Adjusted R-Square of 0.802. This indicates that the five independent variables—namely Trend Analysis (T), Financial Ratio Analysis (Ra), Income Statement Data (PL), Balance Sheet Data (BS), and Statement of Cash Flows Data (CF)—collectively explain 80.2% of the variance in accounting information utilization for business forecasting among Small and Medium Enterprises (SMEs) in the Nong Khaem district. This high percentage reflects that the model is appropriate and possesses significant explanatory power. The remaining 19.8% may be attributed to other factors not included in this study, such as entrepreneurial experience, economic conditions, or government support.

Trend Analysis

The study results indicate that Trend Analysis has the highest influence ($\beta = .528$) on business forecasting effectiveness. This reflects that evaluating historical changes in revenue, costs, and profits is a crucial tool for predicting the future. These findings are consistent with the concepts of K.R. Subramanyam, who explained that trend analysis enables managers to identify performance patterns and directions, which serve as the foundation for financial forecasting.

Furthermore, the results align with the research of William H. Beaver, which found that historical financial data possesses the predictive ability to forecast a firm's future performance and risks. Consequently, the fact that this variable holds the highest influence suggests that SME entrepreneurs prioritize analyzing long-term trends over examining financial figures at a single point in time.

Financial Ratio Analysis

Financial Ratio Analysis holds the second-highest influence ($\beta = .261$), demonstrating that evaluating liquidity, profitability, and capital structure significantly enhances business forecasting effectiveness. These findings are consistent with the work of Raymond F. Smith and Eugene F. Brigham, who stated that financial ratios are essential tools for analyzing a firm's financial position and trends. Furthermore, the results align with the classic study by Edward I. Altman, who developed the Z-Score model using financial ratios to predict business failure, confirming the power of financial ratios in forecasting the future. Consequently, this study's results support the notion that ratio analysis is a vital instrument for reducing uncertainty in decision-making processes.

Income Statement Analysis

Income Statement Data has a positive influence ($\beta = .180$), indicating that revenue and net income information serve as primary data for evaluating growth trends. These findings are consistent with the work of Ray Ball and Philip Brown, who found that accounting earnings are correlated with firm value and possess the ability to reflect economic information. Furthermore, the study aligns with the model proposed by James A. Ohlson, which presents a valuation framework using accounting earnings as a core component. This demonstrates that profit plays a crucial role in forecasting business performance.

Balance Sheet Analysis

The Balance Sheet has a lower positive influence ($\beta = .099$). This may be attributed to the fact that it provides point-in-time information, which primarily reflects the financial structure rather than trend movements. Nevertheless, these findings remain consistent with the Conceptual Framework for Financial Reporting by the International Accounting Standards Board (IASB), which states that the Statement of Financial Position assists in assessing a firm's financial position and solvency. Although it may not capture dynamic changes as effectively as Trend Analysis, it remains an essential component for understanding the overall financial health of the business.

Statement of Cash Flows Analysis

The Statement of Cash Flows has a positive but the lowest influence ($\beta = .088$). This may reflect that SME entrepreneurs still prioritize earnings information over

cash flow data. Nevertheless, research by Gary C. Biddle et al. found that cash flow information possesses the predictive ability to forecast future cash flows and serves as a vital supplement to earnings data. Therefore, it can be concluded that although SMEs may not yet extensively utilize this information, it is considered to have high predictive value from an academic perspective.

The findings of this study are consistent with the Qualitative Characteristics of Financial Information theory proposed by the Financial Accounting Standards Board, which states that information possessing relevance and faithful representation supports economic decision-making. In summary, the study results indicate that 'Data Analysis' exerts a greater influence than the mere use of 'Raw Data' alone. This aligns with previous research confirming that a systematic interpretation of accounting information enhances predictive value and reduces uncertainty in entrepreneurial decision-making.

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