

Strategically Involved, Accounting Information Systems Change The Way Businesses Compete

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ABSTRACT: This study examines whether business strategies and accounting information systems change the way businesses compete and investigates the influences of business strategies and accounting information systems upon the assessment of firm performance. This study also uses Michael Porter's classic model of competition as an example of business strategies that can be developed as a research model. In addition, firm performance evaluation factors are also considered. Data from accountants, who work in various business firms were collected, analyzed, and evaluated. The statistical analysis used in this study is Pearson correlation analysis. The results indicate that business strategies and accounting information systems increase firm performance. Business strategies will be more successful if Organizations have adequate and more reliable, advanced AISs. Both business strategies and AIS can change the culture and improve the efficiency and effectiveness of firm performance. The results suggest firms will increase operational efficiency, cut costs, add business value to themselves, reduce operating budgets, reduce the costs of help desk and customer services, increase revenue, increase services to customers, reach target customers, and provide added value for customers with e-business systems.

Keywords: business strategies; accounting information systems; firm performance; business compete.

I. INTRODUCTION

In Michael Porter's classic model of competition, any business that wants to survive and succeed must develop and implement strategies (O'Brien & Marakas 2008, 44). There are two basic business strategies that a company can follow (Michael E. Porter. "What is strategy ?" *Harvard Business Review* (November-December 1996), pp. 61-78): (1) A product differentiation strategy, and, (2) A low-cost strategy. The objective of most organizations is to provide value to their customers (Michael E. Porter and Victor E. Millar " How Information Gives You Competitive Advantage". (July-August 1985). pp 149-160). An organization's AIS plays an important role in helping it adopt and maintain a strategic position (Romney & Steinbart 2006, 15). The role of AIS is vital in the value chain while adding value to an organization and providing information for decision making (Romney & Steinbart 2006, 4-5). AIS provides accounting information which is used to help in making decisions about organizations as it helps decision makers determine where they are, where they have been, and where they are going (Ingram, Albright, and Baldwin 2004, Figure 16). A major role of IS applications in business is to provide effective support of a company's strategies using IT to develop products, services, and capabilities that give a company a major advantage over the competitive forces it faces in the global marketplace. (O'Brien & Marakas 2006, 40, 42). Information technologies support efficient business operations, workgroup and enterprise collaboration, or effective business decision making. IT can change the way a business competes (O'Brien & Marakas 2006, 40).

This study examines whether business strategies and accounting information systems change the way businesses compete and the influences of business strategies

and accounting information systems upon the assessment of firm performance. Specifically, the researcher investigates whether AIS affects the development of business strategies and whether AIS itself enhances firm performance as well as whether both AIS and business strategies together improve firm performance. An accountant who works as a manager in a firm is expected to be able to explain why AIS is a key factor in enabling his/her organization to achieve its goals—so organizations created as a consequence of AIS can ensure organizations' accomplishments and the improvement of customer services. Accountants can apply AIS to connecting organizations with their suppliers and customers. This brings about electronic business, which increases organizations' revenue and operational efficiency. Thus, AIS can create business change as well as operational efficiency and business value for the organization. The primary learning objectives in this study are to study: (1) The relationship or the role of AIS to the success of business strategies, (2) The role of AIS as a tool to measure firm performance, (3) The relationship between business strategies and firm performance, and, (4) The influences of AIS and business strategies on firm performance.

II. THEORY, LITERATURE REVIEW, AND HYPOTHESES

The five basic competitive strategies which are used to evaluate the role of AIS to the success of business strategies are: (1) Cost leadership strategy, (2) Differentiation strategy, (3) Innovation strategy, (4) Growth strategies, and, (5) Alliance strategies (O'Brien & Marakas 2008, 48). These business strategy evaluation factors are summarized in Figure 1. In addition, the firm performance evaluation factors summarized in Figure 1 must also be considered. Thus, the factors of

achieving goals, cutting costs, increasing operational efficiency, adding business values, reducing operating budgets, reducing costs of customer services, increasing revenues, increasing services to customers, reaching target customers, and adding value to customers with e-business systems are used to evaluate firm performance.

The objective of most organizations is to provide value to their customers (Michael E. Porter and Victor E. Millar “ How Information Gives You Competitive Advantage”.(July-August 1985). pp 149-160). This requires performing a number of different activities. Those activities can be conceptualized as forming a value chain. An organization’s value chain consists of five primary activities that directly provide value to its customers. Support activities allow the five primary activities to be performed efficiency and effectively (Romney & Steinbart 2006, 10). The primary and support activity systems are subsystems of the value chain system. In addition, and organization’s value chain is itself a part of larger system called a supply chain. Organizations can interact with suppliers, distributors, and customers. By paying attention to the inter-organizational linkages in the supply chain, a company can improve its performance by helping the other organizations in the supply chain to improve their performance. How an AIS can add value to an organization. A well-designed AIS can do this by improving the quality and reducing the costs of products or services.

There are many opportunities to invest in additional IT to improve decision making. Most organizations, however, do not have unlimited resources to invest in improving their information system. Therefore, it is important to identify which potential AIS improvements are likely to yield the greatest return. Making this decision wisely requires an understanding of the organization’s overall business

strategy. (Romney & Steinbart 2006, 14). There are two basic business strategies that company can follow (Michael E. Porter. “What is strategy ?” *Harward Business Review* (November-December 1996), pp. 61-78).

1. A product differentiation strategy
2. A low-cost strategy

An organization’s AIS plays an important role in helping it adopt and maintain a strategic position (Romney & Steinbart 2006, 15).

It is difficult for a business to align its strategies, plans, analytical systems, and actions in such away that they ensure successful performance. It is this alignment that performance management addresses. The BPM Standards Group (*bpmstandards.net*) defines business performance management (BPM) as “a framework for organizing, automating, and analyzing business methodologies, metrics, processes, and systems to drive the overall performance of the enterprise. It helps organizations translate a unified set of objectives into plans, monitor execution, and deliver critical insight to improve financial and operational performance. BPM is an enterprise wide strategy that seeks to prevent organizations from sub-optimizing local processes at the expense of overall corporate performance. BPM encompasses a closed-loop set of processes linking strategy to execution in order to optimize business performance. BPM establishes standards/metrics against which performance is to be measured (e.g., balanced scorecard). The balanced scorecard (BSC) is both a performance measurement and management methodology that helps translate an organization’s financial, customer, internal process, and learning and growth objectives and targets into a set of actionable initiatives. BSC is designed to overcome the limitations of those systems that are financially focused. It does this by translating an organization’s

vision and strategy into a set of interrelated financial and non-financial objectives, measures, targets and initiatives. (Turban, Leidner, McLean, and Wetherbe 2008, 457-459).

Information technologies, including Internet-based information systems, are playing a vital and expanding role in business. Internet-based information technologies and information systems have become necessary ingredients for business success in today's dynamic global environment (O'Brien & Marakas 2006, 4). Information systems and their technologies must be managed to support the business strategies, business processes, and organizational structures and culture of a business enterprise (O'Brien & Marakas 2006, 16). AIS has a multitude of functions and applications. It helps investors evaluate the risk and return they can expect from their investments (Ingram, Albright, and Baldwin 2004, F17). It also provides a means for owners and managers to determine the amount of compensation managers will receive (Ingram, Albright, and Baldwin 2004, F18). It is useful for identifying the type and locations of an organization's resources (Ingram, Albright, and Baldwin 2004, F18). It helps managers assess employee performance. It helps companies evaluate the abilities of their suppliers to meet their resource needs while ,in turn, suppliers often use AIS with regard to their customers and in evaluating the risk of a buyer not being able to pay for the goods and services acquired. It is used to assess the risks of buying from specific companies and selling to specific customers. Government agencies also use AIS to make taxation and regulatory decisions (Ingram, Albright, and Baldwin 2004, F19 – F20).

Bowen and Debreceeny (2005) suggest that users of accounting information systems need to improve their understanding of the implications of various data structures on their interactive queries.

Brazel and Dang (2005) indicate that ERP systems have become the systems of choice for the majority of publicly trade companies and have radically altered the way accounting information is processed, analyzed, audited, and disseminated. Brown, Dillard, and Marshall (2005) suggest that AIS should provide the information firms need to manage organizational activities. Environmental considerations are increasingly important in the business world and, as a result, firms are attending more to environmental risks and activities. AIS must respond to these emerging environmental requirements. Fordham (2005) states that to meet the growing need for accountants familiar with information systems, many organizations have added a concentration in accounting information systems (AIS) to their accounting programs. Lee (2005) studies how information systems can affect task performance and personal satisfaction, suggesting that computerized information systems may enable multi-location work. Norman, Rose, and Rose (2005) indicate that full-immersion service learning increased student satisfaction, student perceptions of ability, self-confidence in chosen careers, desire to study accounting information systems, and performance on complex data modeling tasks. Yuthas (2005) asserts that Brown et al. (2005) tackle an under-researched and increasingly important aspect of accounting information systems. Brown et al. supported the claim that AIS gathers insufficient information and provides inadequate support for addressing environmental concerns (Gray and Bebbington 2002; Shaltegger and Burritt 2000), Brown et al. provided a unique tool

for understanding how AIS can support and enhance a firm's choices relating to the strategy and scope of environmental decision making.

Khallaf and Skantz (2004) indicated that this finding is consistent with "first movers" obtaining strategic information technology advantages from new CIO positions. On the other hand, there is a significantly more positive reaction to firms appointing higher quality CIOs and this difference persists throughout the sample period. The latter finding is consistent with Ang et al. (2003) who show that markets discriminate among newly appointed CEOs in an efficient manner.

In this study of the determination of the effect of AIS and business strategies upon assessments of firm performance and the way businesses compete, there are three hypotheses established. While the first and second hypotheses will be used to test the relationship of each variable by using correlation analysis, for the last hypothesis, the researcher has used multiple regression analysis to test the relationship of variables.

H 1: A positive relationship exists between business strategies and AIS.

To study the relationship or the role of AIS to the success of business strategies

H 2: A positive relationship exists between AIS and firm performance.

To study the role of AIS as a tool to measure firm performance such as the reduction of cost, operating efficiency, etc.

H 3: A positive relationship exists among AIS, business strategies, and firm

performance.

To study the impact of AIS and business strategies upon firm performance.

III. SAMPLE SELECTION AND METHODOLOGY

The identified populations were accountants of listed companies from the stock exchange. The source of data was captured from www.set.or.th . The heuristic used to select entries was based on the size of the company. The sample was selected using a simple random sampling technique. The questionnaire group consisted of 250 subjects which were selected at random.

The researcher collected all the data from 250 accountants who work in various business firms (see Tables 1, 2, 3, and, 4). All respondents are high level managers who have more than five years experience in their jobs, so they can understand the concepts of business activities quite well. It will be easier for them to learn how to apply AIS in their job, so they should also have AIS knowledge and know how AIS can improve firm performance and change the way businesses compete. In addition, accounting information systems is still necessary for managers, and is used to analyze and improve their firm performance, so they should have this kind of knowledge. In this study, the researcher also presents the data describing the size of organizations measured by the quantity of all employees in a firm, because this kind of data is one variable used to analyze data in H3.

Table 1 presents the quantity and percentage of the size of the organization measured by the number of employees in a firm. The researcher found that the most common size of organization, measured by the number of employees, is between 400-2,000 persons and is 50% of respondents . Table 2 presents the quantity and percentage of respondents' positions. The researcher found that 50% of the

respondents - the highest level - held positions as accounting managers. These managers can understand the role and impact of business strategy and accounting information systems on an organization. Table 3 shows the quantity and percentage of years of work of respondents. The table indicates that the highest level of years of work is between 21- 25 years, 35% of respondents, which is also the longest time. This helps managers have AIS and business strategy knowledge and the ability to apply them to their organization. Table 4 shows the quantity and percentage of years of total work experience. The table indicates that the highest percentage of years of total work experience is between 21-25 years, at 35 % of respondents. These are the ones who have most experience, knowledge, and understanding in AIS and business strategy and who know well how to apply AIS and how to use business strategy and AIS as a tool to measure firm performance.

Insert Table 1, Table 2, Table 3, and, Table 4 here

In this study, questionnaire was developed. It included various topics related to the areas of business strategy, accounting information systems, and business performance. Questionnaires were distributed as pretests to some accountants who answered all the questions and returned them to the researcher. The questionnaire was adapted and improved by the removal of some questions and other revisions. All questions were summarized in three parts. The improved questionnaire was again attached by e-mail to 250 accountants from many firms for them to answer all questions. All questionnaires were returned but only 109 questionnaires were complete in data. All the data was collected from all the questionnaires and prepared for research. Again, accountants were randomly selected from some companies. After that, the researcher started to interview them using all questions in the improved

questionnaire to make sure that all the data collected from all the questionnaires was reliable enough. The companies the accountants work for was noted from their companies' websites and they were observed directly at their companies; for example, by using Sangtawan Co. Ltd. as a case study to interview and observe their operation and procedure. This was done to make sure that all the data collected about their firms was valid and reliable. After all data collection from each type of data collection method was completed, the data was analyzed using three types of data analysis method. These were descriptive statistics, correlations, and multiple regression analysis. A seven point Likert scale (1-7) was also used as a criteria evaluation for accountants to rate their answers for each question in the questionnaire. SPSS software was then used as the statistical technique to explain and analyze all the data collected from the questionnaires.

Figure 1 represents the proposed research model of this study. It shows the relationship among business strategies, accounting information systems, and firm performance, while the relationship between accounting information systems and business strategies, and, accounting information systems and firm performance are still involved.

Insert Figure 1 here

Variable measurement and model specification for the third hypothesis (H 3)

H3: To test the influences of AIS and business strategies on an assessment of firm performance. The regression analysis was employed in the two following forms:

$$\text{First model: } FP = \beta_0 + \beta_1 BS + \beta_2 SO \quad (1)$$

$$\text{Second model: } FP = \beta_0 + \beta_1 BS + \beta_2 AIS + \beta_3 SO \quad (2)$$

Where:

FP = Firm Performance (the evaluation factors are shown in Figure 1)

BS = Business Strategies

AIS = Accounting Information Systems

SO = Size of Organization

IV. RESULTS

The researcher used descriptive statistics as a technique to present all data collected from part one of the questionnaire in the form of tables showing the frequency of all data and percentage of data collected from questionnaires.

Correlation analysis is used as a technique to test the relationship between two variables. The statistical analysis used in this study is Pearson correlation analysis.

Analysis of relationship between business strategies and AIS (H 1)

This study presents the relationship between business strategies and AIS. The results are shown in Table 5. This table shows the positive relationship between business strategies and AIS. It indicates that each business strategy (in Figure 1) will be more successful if organizations have sufficient and more reliable advanced AIS. This means that AIS will change the way businesses compete. It is also found that AIS can be used as a tool to develop business strategies and to provide accounting information to all users to make decisions. It can reduce the costs of business processes. It can lower the costs of customers or suppliers. New AIS features have been developed to differentiate products and services. Its features can reduce the differentiation and

advantages of competitors and can focus on products and services in selected market niches. AIS can help to develop unique new markets or market niches. It can manage regional and global business expansion. It can diversify and be integrated into other products and services. Finally, AIS can create virtual organizations of business partners. Thus, it can be summarized that the more successful the business strategies, the more AIS is provided to the organization. So, hypothesis 1 is proven.

Insert Table 5 here

Analysis of the relationship between AIS and firm performance (H 2)

Table 6 presents the relationship between AIS and firm performance. Results show the positive relationship between AIS and firm performance. This indicates that the more volume of AIS that is provided, the more efficient and the more effective firm performance is. For example, AIS can be used as a tool to support efficient firm performance and to provide accounting information to all users to make decisions. Then, the organization will achieve its goals and be successful, it will increase operational efficiency, cut costs, add business value to itself, reduce operating budget, reduce costs of help desk and customer services, increase revenue, increase services to customers, reach target customers, and provide added value for customers with e-business systems. So, AIS can play an important role in adding value to firm performance and also in providing value to customers, stockholders investment, and creditors, etc. So, hypothesis 2 is proven.

Insert Table 6 here

Multiple regression analysis is used as a technique to test the relationship of more than two variables.

Analysis of relationship among business strategies, AIS, and firm performance
(H3)

This analysis presents the test of the relationship among three variables: business strategies, AIS, and firm performance based on the size of an organization measured by the number of its employees. For the first model, Table 7 presents a positive relationship between business strategies and firm performance. It indicates ten variables of firm performance and the value of business strategies to each variable of firm performance. It is found that the more use of efficient business strategies, the more efficient and effective the firm performance is; for example, business strategies such as cost leadership strategy, differentiation strategy, innovation strategy, growth strategies, and, alliance strategies will help organizations in achieving goals, cut costs, increase revenues, increase customer services, and provide added value to customers, etc. When determining the results of Table 8, it is found that the application of business strategies in an organization can change and improve the efficiency and effectiveness of firm performance in each area of business; or it can be said that accountants should be satisfied with the effect of business strategies on the assessment of firm performance.

Insert Table 7, and, Table 8 here

For the second model, Table 9 presents a positive relationship among business strategies, AIS, and firm performance. It analyzes the impact of business strategies and volumes of AIS on the assessment of firm performance based on the size of an organization measured by the quantity of its employees. In this study, it is found that five business strategies and AIS have positive and good relationships to all ten variables of firm performance. For example, the major role of AIS in business is to provide effective support of a lower costs strategy for achieving firm performance (cutting costs). It can be summarize that the more business strategies and more AIS provided to an organization, the more successful is the performance of that

organization. In Table 10, the determination of the influence of business strategies and AIS on the assessment of firm performance are shown. It is found that business strategies and AIS change the way businesses compete and improve the culture of firm performance, helping it become more efficient and more effective. For example, AIS provides accounting information to support a differentiation strategy and the other strategies which will help an organization to increase revenue and also to achieve goals, increase operational efficiency, reduce costs, reduce operating budgets and costs of customer services, increase services to customers, and added values to customers and to business, etc. So business strategy and AIS play an important role in the support of a firm's achievement of its goals and success. Business strategy and AIS are also important in increasing operational efficiency as well as cutting costs. They also help add value to the company and reduce operating budget. Business strategy and AIS are important in reducing the costs of help desk and customer services. They help increase revenue and also increase more alternative services for customers as well as adding value for the customer. Business strategy and e-business-based AIS help reach a company's target customers. Finally, it can be summarized that while strategically involved, AIS can change the way businesses compete and has an influence on the assessment of a firm's performance. So, hypothesis 3 is proven.

Insert Table 9, and, Table 10 here

V. CONCLUSION

This study examines whether business strategies and accounting information systems change the way businesses compete and investigates the influences of business strategies and accounting information systems on the assessment of firm performance. In fact, AIS, itself, is used as a tool to increase firm performance; and

business strategy also has the same role of helping decision makers to improve firm performance. This study also uses the Michael Porter's classic model of competition as an example of business strategies that can be developed as a research model. The five basic competitive strategies which are used to evaluate the role of AIS in the success of business strategies are: (1) Cost leadership strategy, (2) Differentiation strategy, (3) Innovation strategy, (4) Growth strategies, and, (5) Alliance strategies (O'Brien & Marakas 2008,48). In addition, the firm's performance evaluation factors must also be considered. Thus, the factors of achieving goals, cutting costs, increasing operational efficiency, adding business values, reducing operating budgets, reducing costs of customer services, increasing revenues, increasing services to customers, reaching target customers, and adding value to customers with e-business systems are used to evaluate firm performance. The statistical analysis used in this study is Pearson correlation analysis. In this research, data was collected from accountants who work as managers in various firms. The four techniques used in this study were questionnaires, observations, interview, and data analysis. Questionnaires were distributed to 250 accountants by e-mail, while 109 completed questionnaires were collected for this study. The data collected from questionnaires were analyzed by SPSS for Windows software. The data analyzed by descriptive statistic analysis were presented in table form showing the frequency and percentage of data. Correlation analysis was used to examine the relationship between two variables, for example, AIS and firm performance while multiple regression analysis was used to examine the relationship of more than two variables. In this study, multiple regression analysis is used to examine the relationship among business strategies, AIS, and firm performance.

The results from the three hypotheses analysis can be grouped into three parts –

Analysis of the relationship between business strategy and AIS – It is found that there is a positive relationship between business strategy and AIS. This indicates that AIS will change the way businesses compete. It is also found that AIS can be used as a tool to develop business strategies and to provide accounting information to all users to make decisions. The more successful the business strategies, the more AIS that is provided to the organization. Analysis of the relationship between AIS and firm performance – there is a positive relationship between AIS and firm performance. This indicates that AIS can be used as a tool to support efficient firm performance and to provide accounting information to all users to make decisions. Then, the organization will achieve its goals and be successful, it will increase operational efficiency, cut costs, add business value to itself, reduce operating budget, reduce costs of help desk and customer services, increase revenue, increase services to customers, reach target customers, and provide added value for customers with e-business systems. The more volume of AIS provided, the more efficient and effective the firm performance is. Analysis of the relationship among business strategies, AIS, and firm performance - there is a positive relationship among business strategies, AIS, and firm performance. It is found that business strategies and AIS change the way businesses compete and improve the culture of firm performance to be more efficient and more effective. The more business strategies and the more AIS provided, the more successful is the performance of the firm.

Finally, the positive results in this study suggest that both business strategies and AIS can influence organizations in various ways; for example, to increase operating efficiency and effectiveness, to increase revenue and customer satisfaction, to reduce costs, and to achieve goal and business strategy, and finally to increase firm performance.

TABLE 1
Size of Organization Measured by Quantity of Employees and Percentage

quantity of employees	percentage
below 100	5%
101 - 200	15%
201 - 400	25%
401 - 2,000	50%
more than 2,001	5%

TABLE 2
Positions and Percentage of Respondents' Positions

Position of employees	percentage
Chief executive officer	5%
Marketing manager	10%
Financial manager	10%
Manufacturing manager	10%
Accounting manager	50%
Chief information officer	10%
Others	5%

TABLE 3
Quantity and Percentage of Years to Work of Respondents

Quantity of years to work	percentage
1 - 5 years	9%
6 - 10	10%
11 - 15	15%
16 - 20	20%
21 - 25	35%
more than 25	10%
missing	1%

TABLE 4
Quantity and Percentage of Years of Total Work Experience

Years of total work experience	percentage
1 – 5 years	10%
6 - 10	10%
11 - 15	15%
16 - 20	20%
21 - 25	35%
More than 25	9%
missing	1%

FIGURE 1
Michael Porter's classic model of competition (O'Brien and Marakas 2008) and
Research Model

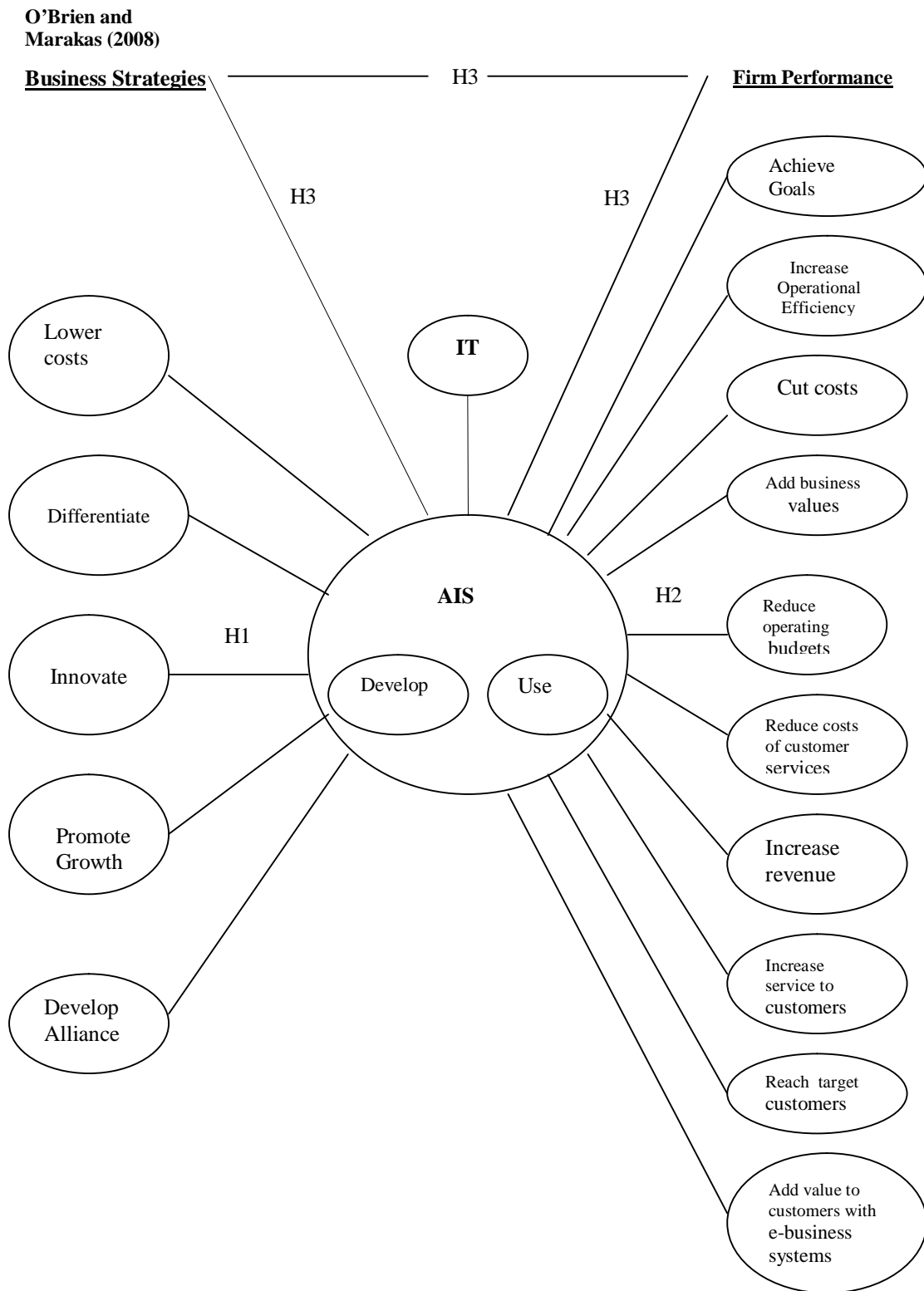


TABLE 5
Analysis of Relationship between Business Strategy and AIS (H1)

	Business Strategy	AIS
Business Strategy	1	
AIS	0.215**	1

Business Strategy = Business strategies

AIS = Accounting information systems

** p < 0.01

TABLE 6
Analysis of Relationship between AIS and Firm Performance (H2)

	achieve goal and success	increase operational efficiency	cut costs	add business values	reduce operating budgets
	reduce costs of customer services	increase revenues	increase services for customers	reach target customers	add value for customers with e-business
AIS	0.215**	0.209**	0.221**	0.218**	0.223**
AIS	0.206**	0.231**	0.225**	0.232**	0.214**

AIS = Accounting information systems

** p < 0.01

TABLE 7
Analysis of Relationship between Business Strategies, and Firm Performance (H3)

Firm Performance		Coefficients B	F	Sig.	T	Sig.
achieve goals	constant	6.321	2.012	0.000	2.231	0.000
	Business strategies	0.024			1.212	0.000
cut costs	constant	4.323	3.452	0.000	1.018	0.001
	Business strategies	0.016			2.101	0.000
increase operational efficiency	constant	10.131	8.021	0.000	2.243	0.000
	Business strategies	0.014			2.024	0.000
add business values	constant	5.412	4.261	0.000	2.013	0.000
	Business strategies	0.012			2.123	0.000
reduce operating budgets	constant	7.121	3.103	0.001	2.341	0.000
	Business strategies	0.072			2.216	0.001
reduce costs of customer services	constant	10.156	8.153	0.000	2.247	0.000
	Business strategies	0.221			3.416	0.000
increase revenues	constant	5.446	4.327	0.000	2.204	0.000
	Business strategies	0.116			2.402	0.000
increase services to customers	constant	6.364	5.237	0.000	2.253	0.000
	Business strategies	0.215			2.264	0.000
reach target customers	constant	8.321	4.362	0.001	3.921	0.000
	Business strategies	0.236			2.842	0.001
add value to customers with e-business systems	constant	11.241	8.531	0.000	3.465	0.000
	Business strategies	0.265			4.261	0.000

TABLE 8
Determination on the Influence of Business Strategies on an Assessment of Firm Performance
(H3)

Firm Performance	R	R ²	Adjusted R ²	Standard error of the estimate
achieve goals	0.231	0.165	0.155	1.612
increase operational efficiency	0.441	0.220	0.212	2.1.20
cut costs	0.322	0.161	0.145	1.4.51
add business values	0.241	0.120	0.112	1.5.22
reduce operating budgets	0.242	0.170	0.164	1.6.42
reduce costs of customer services	0.250	0.124	0.113	1.6.33
increase revenues	0.331	0.160	0.152	1.5.21
increase services to customers	0.440	0.235	0.213	2.1.32
reach target customers	0.230	0.114	0.104	1.049
add value to customers with e-business systems -	0.143	0.085	0.072	1.264

TABLE 9
Analysis of Relationship among Business Strategies, AIS, and Firm Performance (H3)

Firm Performance		Coefficients B	F	Sig.	T	Sig.
achieve goals	constant	5.201	4.536	0.000	2.038	0.000
	Business strategies	0.019			0.664	0.001
	AIS	0.014			1.832	0.000
increase operational efficiency	constant	6.061	2.842	0.000	1.207	0.000
	Business strategies	0.009			0.302	0.000
	AIS	0.031			1.076	0.001
cut costs	constant	10.121	6.281	0.000	1.945	0.000
	Business strategies	0.086			1.942	0.000
	AIS	0.027			0.614	0.000
add business values	constant	2.967	5.804	0.000	0.668	0.001
	Business strategies	0.030			1.012	0.000
	AIS	0.011			1.084	0.000
reduce operating budgets	constant	8.346	7.015	0.000	1.126	0.000
	Business strategies	0.062			1.089	0.000
	AIS	0.021			1.032	0.001
reduce costs of customer services	constant	3.312	2.005	0.000	0.641	0.000
	Business strategies	0.012			1.046	0.000
	AIS	0.004			0.605	0.001
increase revenue	constant	5.152	4.058	0.000	1.627	0.000
	Business strategies	0.031			1.527	0.000
	AIS	0.024			1.051	0.000
increase services to customers	constant	5.116	4.238	0.000	1.503	0.000

	Business strategies	0.016			1.026	0.000
	AIS	0.032			1.011	0.000
reach target customers	constant	5.110	4.238	0.000	1.502	0.000
	Business strategies	0.013			1.026	0.000
	AIS	0.007			1.041	0.000
add value to customers with e-business systems	constant	3.392	2.104	0.000	0.842	0.000
	Business strategies	0.013			1.026	0.000
	AIS	0.007			0.406	0.000

TABLE 10
Determination on the Influence of Business Strategies and AIS on an Assessment of Firm Performance (H3)

Firm Performance	R	R ²	Adjusted R ²	Standard error of the estimate
achieve goals	0.375	0.182	0.165	1.028
increase operational efficiency	0.321	0.16	0.148	1.236
cut costs	0.302	0.151	0.140	1.201
add business values	0.314	0.152	0.131	1.254
reduce operating budgets	0.285	0.192	0.180	1.703
reduce costs of customer services	0.234	0.117	0.108	1.062
increase revenues	0.364	0.182	0.176	1.620
increase services to customers	0.271	0.140	0.130	1.201
reach target customers	0.260	0.130	0.122	1.104
add value to customers with e-business systems -	0.251	0.125	0.115	1.021

APPENDIX

Questionnaire

This questionnaire is divided into three parts. Please answer the following questions to the best of your ability. Your response will be kept in strictest confidence. Thank you for your participation in this study. If you decide not to participate, please return the blank survey :

Part 1

Questions

Answer
Acceptance not do not know
Acceptance

1. Does your organization have used AIS? If no, please proceed to part 2.
2. Does your organization's AIS be as the key factor enabling organization to achieve business strategy ? (H1)
3. Does your organization's AIS

- have an important role to assess of firm performance? (H2)
- 4. Do your organization’s business strategy and AIS be as the key factors enabling organization to achieve firm performance? (H3)
- 5. Does your organization’s business strategy have an important role to assess of firm performance? (H3)

Part 2

Please respond to the questions:

1. Please indicate your position in organization_____.
2. How many years of total work experience do you have ?_____.
3. How many years do you work in this organization ?_____.
4. What is the size of your organization (quantity of employee)_____.

Part 3

Please indicate how strongly you agree or disagree with the following statements by circling the appropriate response to the left of each statement. Please use the following scale when marking your response:

- 1 = Strongly agree 2 = Agree 3 = Slightly agree
- 4 = Neutral 5 = Slightly disagree 6 = Disagree 7 = Strongly disagree

Part 3.1 Business Strategies and AIS (H1)

- | | | | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|---|---|
| 1. How does AIS be considered an essential new strategy to gain competitive advantage? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. How does AIS develop strategic relationships with customers, suppliers, and business partners ? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. How does AIS be significant strategy to help gain a competitive advantage ? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. How does strategic vision play an important role in planning for an accounting information system ? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. How does AIS play an important role to SWOT analysis strength, weakness, opportunity and threat) to evaluate the impact of each strategic opportunity? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. How does cross functional enterprise systems be viewed as a strategic way to use AIS in business process ? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. How does cross functional enterprise systems be viewed as a strategic way to use AIS to develop strategic relationship with customers, suppliers, and business partners ? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. How does AIS change your strategy’s focus from a product-based to customer service based company ? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. How does AIS be used to reduce cost of business processes? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. How does AIS be used to lower the costs of customers or suppliers? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11. How does new AIS features be developed to differentiate products and services? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12. How does AIS features be used to reduce the differentiation And advantages of competitors? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 13. How does AIS features be used to focus products and services at selected market niches? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14. How does AIS help to develop unique new markets or market niches? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 15. How does AIS be used to manage regional and global business expansion? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 16. How does AIS be used to diversify and integrate into other | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

products and services?	1	2	3	4	5	6	7
17. How does AIS be used to create virtual organizations of business partners?	1	2	3	4	5	6	7

Part 3.2 Accounting Information systems and firm performance (H2)

1. How does accounting information systems play an important role to add value to firm performance?	1	2	3	4	5	6	7
2. How does accounting information systems play an important role for decision-making ?	1	2	3	4	5	6	7
3. How does accounting information systems play an important role to provide value to customers ?	1	2	3	4	5	6	7
4. How does accounting information systems play an important role to stockholders investment ?	1	2	3	4	5	6	7
5. How does accounting information systems play an important role to add value to creditors ?	1	2	3	4	5	6	7
6. How does accounting information systems play an important role in support of firm's achievement of its goals and success?	1	2	3	4	5	6	7
7. How does accounting information systems play an important role to increase operational efficiency ?	1	2	3	4	5	6	7
8. How does accounting information systems play an important role to cut costs?	1	2	3	4	5	6	7
9. How does accounting information systems play an important role to add business value to itself ?	1	2	3	4	5	6	7
10. How does accounting information systems play an important role to reduce firm's operating budgets ?	1	2	3	4	5	6	7
11. How does accounting information systems play an important role to reduce costs of help desk and customer services ?	1	2	3	4	5	6	7
12. How does accounting information systems play an important role to increase revenue?	1	2	3	4	5	6	7
13. How does accounting information systems play an important role to increase more alternative services for customers ?	1	2	3	4	5	6	7
14. How does accounting information systems play an important role to help reach target customers ?	1	2	3	4	5	6	7
15. How does accounting information systems play an important role to add value for the customer with an e-business system ?	1	2	3	4	5	6	7

Part 3.3 Business strategy and firm performance (H3)

1. How does business strategy play important role in support of your organization's achievement of its goals and success?	1	2	3	4	5	6	7
2. How does business strategy play an important role to increase operational efficiency ?	1	2	3	4	5	6	7
3. How does business strategy play an important role to cut costs ?	1	2	3	4	5	6	7
4. How does business strategy play an important role to add business value to itself ?	1	2	3	4	5	6	7
5. How can business strategy play an important role to reduce operating budgets ?	1	2	3	4	5	6	7
6. How can business strategy reduce costs of help desk and customer services?	1	2	3	4	5	6	7
7. How can business strategy play an important role to increase revenue?	1	2	3	4	5	6	7
8. How can business strategy increase more alternative services for your customers ?	1	2	3	4	5	6	7
9. Will business strategy help reach your target customers?	1	2	3	4	5	6	7
10. How can business strategy add value for the customer?	1	2	3	4	5	6	7

Part 3.4 business strategy, accounting, and firm performance(H3)

1. How do business strategy and accounting information systems play the important role in support of firm's achievement of its goals and success?	1	2	3	4	5	6	7
2. How do business strategy and accounting information systems	1	2	3	4	5	6	7

play the important role to increase operational efficiency ?							
3. How do business strategy and accounting information systems play the important role to cut costs?	1	2	3	4	5	6	7
4. How do business strategy and accounting information systems play the important role to add business value to itself ?	1	2	3	4	5	6	7
5. How can business strategy and accounting information systems play the important role to reduce operating budgets ?	1	2	3	4	5	6	7
6. How can business strategy and accounting information systems play the important role to reduce costs of help desk and customer services?	1	2	3	4	5	6	7
7. How can business strategy and accounting information systems play the important role to increase revenue?	1	2	3	4	5	6	7
8. How can business strategy and accounting information systems play the important role to increase more alternative services for customers ?	1	2	3	4	5	6	7
9. How can business strategy and e-business-based AIS help reach your target customers ?	1	2	3	4	5	6	7
10. How can business strategy and accounting information systems play the important role to add value for the customer ?	1	2	3	4	5	6	7

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