Research Journal of Business and Management
Year: 2016 Volume: 3 Issue: 1

BUSINESS AND INFORMATION SYSTEM STRATEGIC ALIGNMENT: DETERMINANTS AND IMPACT ON RURAL BANK ORGANIZATIONAL PERFORMANCE

DOI: 10.17261/Pressacademia.2016116543

Toto Sugiharto [1], Novita Sulistiowati[2], Rina Nofiyanti[3]

[1] Gunadarma University. tsharto@staff.gunadarma.ac.id
[2]Gunadarma University. novitahk@staff.gunadarma.ac.id
[3]Gunadarma University. rnovia@staff.gunadarma.ac.id

ABSTRACT

Impact of information systems on firm performance is related with its alignment with business strategy. This study aims to analyze the influence ofthe degree shared common knowledge, business environment scanning intensity, planning sophistication, and information systems implementation effectiveness onthe degree of aligment between business strategy orientation and informationsystems strategyorientation (i.e., strategic aligment); additionaly it also aims to analyze the effect of strategic aligment on rural bank organizational performance. Not less than 78 rural bank managers are involved in this study. Path analysis was performed to test the proposed hypotheses. It is recognized that strategic aligment provides signifcant contribution to rural bank organizational performance. Meanwhile, the degree of strategic alignment is influenced by the intensity of business environment scanning, the degree of shared common knowledge, planning sophistication, and the information systems implementation effectiveness.

Keywords: Rural banks, organizational performance, strategic alignment, business strategy orientation, info. sys. strategy orientation.
JEL Classification: G21, C30, M21.

1. INTRODUCTION

Banking system in Indonesia, in general, consists of two groups of banks, namely commercial banks and rural banks or community banks. By Auguts 2015, in Indonesia there are 118 commercial banks along with more than 20 thousand offices and not less than 1644 rural banks with approximately 5036 offices (Indonesia Banking Statistics, 2015). However, based on their total asset, third party funds, and amount of distributed funds, as illustrated in the following table, rural banks are substantially smaller as to compare with commercial banks.

Table 1:Asset, TPF and DF Comparison between Ruraland Commercial Banks

Attribute	Commercial Banks		RuralBanks	
	Trillion IDR	%	Trillion IDR	%
Assets	6,010.747	98.42	96.540	1.58
Third Party Funds	4,904.408	98.38	80.539	1.62
Distributed Funds	5,899.822	98.44	93.212	1.56

Source: Indonesia Financial Service Authority(Indonesia Banking Statistics, Vol. 13, No. 9, August 2015)

In the last decade, rural banks in Indonesia experienced a significant growth especially in terms of number of banks, number of offices, amount of distributed funds, total asset, and amount of third party funds collected (Sugiharto, 2012). Traditionally, rural banks are closely related to micro, small, and medium businesses (Hein *et*

al, 2005) where these businesses play an important role in the Indonesia's economy (Ibrahim, 2003). Accordingly, it is assumed that rural banks have the potential to provide significant contribution to the nation's economy.

The economic roles of rural banks, particularly their contribution to the nation's economic growth (i.e., GDP), is influenced by changes in technology, including information and communication technology (ICT) and information systems, which occur relatively rapidly lately. In the face of such changes, rural banks owners and or managers are required to select and implement the right strategy consistently so that their business existence can be maintained and even, when the selected and applied strategies are appropriate to their situation, their business can be improved both in term of organizational performance and size or, more precisely, business expansion.

A number of studies, such as Mugler (2003), Ebben and Johnson (2005), Turgay and Kassegn (2005), and Wang *et al*. (2006) indicated that strategic management for success, growth and increased competitiveness is of importance to micro, small, and medium enterprises including rural banks; Eckhardt and Shane (2006), Locke (2006) Lee *et al*. (2009), and Sugiharto *et al*. (2007; 2008a; 2008b; 2010a; 2010b) found that knowledge of and the application of information and communication technologies (i.e., information systems) have the potentials to improve innovation, motivation, control of information, productivity, and performance of these group or scale of businesses. These suggest that business strategy and information systems strategy as well as their strategic alignment adopted and applied by rural banks, at any levels, contribute to the firm organizational performance (Chan *et al*., 1997; Singh and Desai, 2013).

This study, in accordance with the above mentioned research background, aims to analyze the influence of the degree of shared common knowledge between business and information systems managers, the intensity of business environment scanning, the existence of business planning sophistication, and the effectiveness of information systems implementation on the degree of strategic alignment between business strategy orientation and information systems strategy orientation and, in turn, on organizational performance of rural banks.

The paper is organized as follows. This paper begins with the introduction section which explains the background of the importance of and the objectives of this study. The next section is literature survey that describes the theories and empirical evidences that support and align with the topics and objectives of this study. The third section contains information about the type of data used in this study and how the data is collected and analyzed. Results of the study and discussions are presented in the fourth section. Findings and implications derived from the study results are presented in the last section.

2. LITERATURE SURVEY

2.1. Business Strategy Orientation and Rural Banks Organizational Performance

Nowadays, entrepreneurs, including rural bank managers and or operators, are faced with a rapid business environment changes and tighter competition. Accordingly, they are required to equip themselves with business management strategies to be able to preserve existence, increase productivity, and develop their business competitiveness (Lazenby, 2005). Hanlon and Scott (1993) believe that a clear strategy is a "powerful weapon" for businesses, including rural banks, in improving organizational performance. Ebben and Johnson (2005) found that business organizations that implement management strategies, both efficiency strategies and flexibility strategies, have a better performance than those business organzations which do not implement management strategies. Wang *et al.* (2006) stated that in fact the implementation of management strategies in business organizations is closely related to the motivation of entrepreneurs as well as business practitiners in setting up and managing businesses they run.

Meanwhile, Turgay and Kassegn (2005), found that business organizations that do not implement management strategies in the form of business planning, for example-whether formal or informal, will likely go bankrupt because of competition. Therefore, according to Turgay and Kassegn (2005), business organizations need to have and develop a competitive advantage strategies. With regard to the business environment and competition, Daesoo *et al*. (2008), warned that the competition rules and the paradigm of business have

shifted, among others, from the product to the customer, from business transactions to business associates, and from information to knowledge.

In their study, Turgay and Kassegn (2005) develop an empirical model of management strategies (that is empirical strategic management) for rural banks. In such a model the causal relationships and interdependence between measures of each phase in the process of management strategies are considered. The business plan, which is developed based on the analysis of the business environment, is an important aspect for micro and small businesses, including rural banks, in improving their business performance, both managerial performance and financial performance. In details, Turgay and Kassegn (2005) concluded that the intensity of business planning is positively related to business performance and information-seeking behavior, which is closely related to the activities of business environment analysis, positively associated with the perceived threat of competition and the perception of competitive opportunities.

2.2. Information SystemsStrategy Orientation andRural Banks Organizational Performance

Badrinath and Wignaraja (2004) clearly stated that there are three approaches that can be applied to develop and strengthen the competitiveness of business organizatios, namely: (i) a closer partnership between government and business, (ii) the effective involvement of national institutions in value chain, and (iii) the application of cutting-edge technology more optimally. They furthermore explain that innovation in the application of ICT (i.e., information systems) in business—or simply putting the letter "e" in the work—serves as a controlling factor of competition that need attention.

The above mentioned statements of Wignaraja and Badrinath (2004), widely supported or aligned with a number of studies on the relationship between the use of ICT (i.e., information systems) with the performance and competitiveness of business organization. Some of them are Eckhardt and Shane (2006), Locke (2006), Hua (2007), Amarasena (2008), Ashrafi (2008), Ion and Andreea (2008), Masa'deh *et al*. (2008), Olugbode *et al*. (2008), Lee *et al*. (2009), and Sugiharto *et al*. (2007, 2008a, 2008b, 2010a, 2010b).

Eckhardt and Shane (2006) based on the results of their research, suggest that technological innovations, including ICT, help micro and small businesses to improve their performance. Locke (2006) found that the growth of micro and small businesses in New Zealand is supported by the rate of adoption of ICT. Hua (2007), through his study, concluded that both the micro, small and medium businesses requires information and communication technologies to improve its performance, but its application requires a different strategy.

Amarasena (2008), in his study, concluded that in order to improve the performance of export-oriented business organizations, the use of information systems should be combined with other factors, especially human resources. His conclusions are based on facts that indicate a trend business organizations more focused itself on technological aspects and slightly ignore aspects of human resources. In the mean time, Ashrafi (2008), who conducted research in Oman, found that business organizations that use information systems, which were relatively few, obtain the benefit from the ease of providing service to customers so they can maintain their market competitiveness.

Ion and Andreea (2008), who examine the application of information systmes among business organizations in service sector, found that information systems facilitate businesses in (i) scanning the business environment both in the search for business opportunities and in identifying the threat of business, (ii) increasing innovation and productivity, and (iii) improving organizational performance. Therefore, the use of information systems in business organizations is highly recommended by both investigators.

Masa'deh *et al*. (2008), in their study, suggest that the impact of information systems on business performance has yet to reach a unanimous agreement or inconclusive. It is caused by a number of studies that do not integrate the application of information systems and business strategies adopted by businesses, especially causal relationship between information systems and business strategy alignment with business performance, both organizational performance and financial performance. They recommend that the application of information systems in a business should be tailored to the business strategy adopted by the business.

Lee *et al*. (2009) stated that business organizations are still largely left behind in the application of information systems compared to medium and large businesses. They found that levels of knowledge of the business

practitioners on information systems influence the performance of the organization's internal processes and customer performance, both variables, in turn, contribute to financial performance.

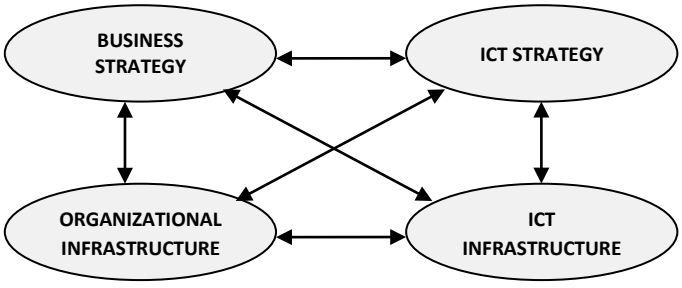
Olugbode *et al*. (2008) concluded that information systems play an important role in maintaining a competitive advantage and to enhance the growth and profitability of small and micro businesses. Meanwhile, Sugiharto *et al*. (2007, 2008a, 2008b, 2010a, 2010b) found that the rate of information systems adoption of small business practitioners is influenced by individual characteristics. This includes perceived usefulness, perceived ease of use, internet self-efficacy, internet anxiety, and personal innovativeness. The adoption rate of the Internet, except for micro and small entrepreneurs in agribusiness, affect the financial performance of the business. This indicates that the application of information systems among micro and small businesses could potentially improve business performance.

2.3. Strategic Alignment and Rural Banks Organizational Performance

Based on the research results discussed in the previous section, it can be drawn a universal conclusion that is that the application of information systems among business organizations could potentially improve the performance of the business, either by improving the innovation (innovativeness), productivity as well as increasing the ability to scan the business environment (that is business environment scanning) in the form of capturing opportunities and identify threats effort. Therefore, in an effort to empower these potentials, the application of ICT, in terms of information systems, need to be combined with the knowledge and skills of management strategies.

The linkage between ICT (i.e., information systems) and management strategies and the implications for business performance improvement, both organizational performance and financial performance, quite clearly elaborated by Turgay and Kassegn (2005), through their Empirical Strategic Management Model and by Masa'deh *et al*. (2008) through their Strategic Alignment Model as depicted in figure 1. Both models mentioned above refer to the concept of alignment or fit between business strategy with information systems strategy whose model was developed by Henderson and Venkatraman (1989).

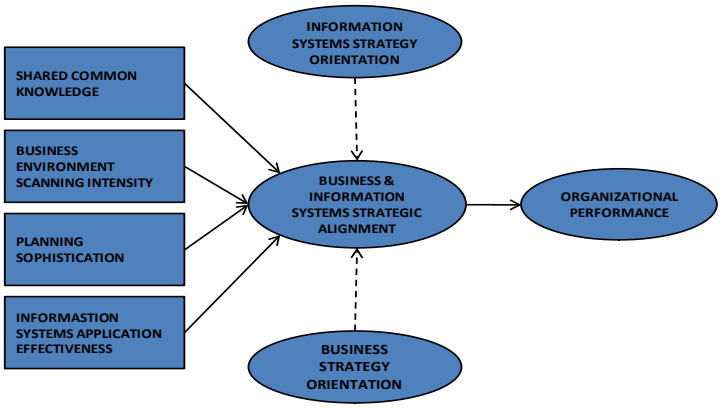
Figure 1: Strategic Alignment Model (Source: Ma'sadeh *et al*. 2008)



2.4. Research Model and Hypotheses Development

Based on the literature review discussed previously, research model and its associated hypotheses are formulated. Hale (1995), Hussin (1998), Turgay and Kassegn (2005), and Ma'sadeh *et al*. (2008), however, were used as primary references for developing model of the research. As illustrated in figure 2 below, there are eight variables involved in this study. Details of these variables along with their associated indicators and related validity and reliability tests results are depicted in table 2 which follows.

Figure 2: Theoretical Path Analysis Model



The degree of strategic alignment between business strategy and ICT strategy (BISA) is estimated, referring to Chan *et al.* (2006), by subtracting ideal values of dimensions of strategies orientation from their respective existing values.

Table 2: Identification of Research Variables and Associated Validity and Reliability

Variables	Measurement Criteria	Indicators	Correlation Coefficient	Cronbach's Alpha
Rural Banks Organizational Performance (RBOP)	Rural Banks relative performance to closest competitor	Reputation	0.737	0.849
		Introduction of new products	0.824	
		Return on asset	0.725	
		Net interest margin	0.787	
		Business & technology innovation	0.826	
		Information system functions	0.657	
Shared Common Knowledge (SCKN)	Shared common knowledge between business and information systems managers	Information systems managers recieves business decision regulargy	0.926	0.784
		Business manager involvement in information systems development	0.892	
Business Environment Scanning Intensity (BESI)	Scope and frequency of scanning of business environement	Customer preference and demand pattern toward bank product	0.883	0.842
		Strategic steps taken by competitors	0.902	
		Regulation and legislation on banking	0.836	
Planning Sophistication (BPSP)	Importance of various business information in managing and developing firm.	Strategic plan mechanism	0.835	0.734
		Research and development	0.873	
		Interdepartment coordination	0.713	
Information Systems Application Effectiveness (ISUE)	Frequency or intensity of Information Systems Application	Information managers receives information regarding business plan and strategi desision	0.881	0.805
		Effectiveness of information systems in business plan and strategic decision	0.807	
		Effectiveness of information systems in new poduct development	0.871	
Business & Information Systems Strategic Alignment (BISA)	Difference between existing and ideal level of Business strategy orientation	Defender strategy	NA[1]	0.879
		Analytic strategy		0.826
		Risk averse strategy		0.627
		Proactive strategy		0.688
		Futuristic strategy		0.688
		Agressive strategy		0.517
	Difference between existing and ideal level of Information systems strategy orientation	Operation support system strategy		0.875
		Interdepartment coordination strategy		0.895
		Marketing infromation system strategy		0.813
		Decision support system strategy		0.896

Note: [1]Each indicator has its own sub-indicators with correlation coefficients ranged from 0.642 to 0.936 which are valid.

The are five hypotheses formulated and will be tested in the study. These hypotheses are as follows.

H_1: *degree of shared common knowledge affects business and information systems strategic alignment.*

H_2: *business environment scanning intensity affects business and information systems strategic alignment.*

H_3: *business planning sophistication affects business and information systems strategic alignment.*

H_4: *effectiveness of information systems usage/application affects business and information systems strategic alignment.*

H_5: *business and information systems strategic alignment affects rural banks organizational performance.*

3. DATA AND METHODOLOGY

The study scope, as mentioned clearly in the title of the study, was limited to rural banks, specifically those which are associated with the Jakarta Chapter of the Indonesian Rural Banks Association (Perbarindo). A set of questionnaires for measuring research variables were devepoded—mainly referring to Chan *et al*. (2006)—and tested for its validity and reliability. Research variables were measured using a five-point Likert scale. Data were gathered from 78 rural bank managers, which were selected using simple random selection approach, using the developed and tested questionnaires. The formulated hypotheses were tested—as depicted in the theorical path model—using path analysis model.

4. EMPIRICAL FINDINGS

4.1. Descriptive Statistics of Reseach Variables

Scores of each research variables, which cover minimum, maximum, average, standard deviation, and coefficient of variation, are depicted in table 3 below.

Table 3: Descriptive Statistics of Research Variables

Variables	Indicators	Min		Max		Mean		Stdev		CV[3]
		Ind[1]	Var[2]	Ind[1]	Var[2]	Ind[1]	Var[2]	Ind[1]	Var[2]	
Rural Banks Organizational Performance (RBOP)	Reputation	1.0	2.33	5.0	4.67	3.38	3.36	0.74	0.49	14.56
	Introduction of new products	2.0		5.0		3.26		0.56		
	Return on asset	2.0		5.0		3.47		0.61		
	Net interest margin	1.0		5.0		3.40		0.74		
	Business & technology innovation	2.0		5.0		3.27		0.61		
	Information system functions	3.0		5.0		3.38		0.56		
Shared Common Knowledge (SCKN)	Information systems managers recieves business decision regulargy	1.00	1.00	5.00	5.00	3.64	3.65	0.80	0.69	18.76
	Business manager involvement in information systems development	1.00		5.00		3.67		0.69		
Business Environment Scanning Intensity (BESI)	Customer preference and demand pattern toward bank product	1.00	1.00	5.00	5.00	3.62	3.68	0.68	0.60	16.43
	Strategic steps taken by competitors	1.00		5.00		3.58		0.67		
	Regulation and legislation on banking	1.00		5.00		3.83		0.72		
Planning Sophistication (BPSP)	Strategic plan mechanism	1.00	1.00	5.00	5.00	3.67	3.68	0.71	0.53	14.34
	Research and development	1.00		5.00		3.50		0.75		
	Interdepartment coordination	1.00		5.00		3.88		0.51		
Information Systems Application Effectiveness (ISUE)	Information managers receives information regarding business plan and strategiC desision	2.00	2.00	5.00	5.00	3.77	3.56	0.62	0.60	16.84
	Effectiveness of information systems in business plan and strategic decision	2.00		5.00		3.51		0.69		
	Effectiveness of information systems in new poduct development	1.00		5.00		3.41		0.79		
Business-Information Systems	Business strategy orientation	-3.67	-3.83	-0.17	-0.61	-1.21	-1.22	0.42	0.40	33.14

Strategic Alignment (BISA)	Information systems strategy orientation	-4.00	-0.23	-1.22	0.48

Note: [1] Indicator
[2] Variable
[3]Coefficient of variance of variable

As shown in the table, scores of research variables, except for BISA (degree of strategic alignment between business orientation strategy and information systems orientation strategy), varied from as low as 1 (minimum score) to as high as 5 (maximum score). These indicate that respondents with respect to their perceptions towards research variables have different level. For example, degree of shared common knowledge (SCKN) of the involved rural banks ranged from 1 to 5 averaged at 3.65, with standard deviation and coefficient of variation of 0.69 and 18.76 percent respectively. The degree of strategic alignment (i.e., BISA) was derived by subtracting the ideal scores of dimensions of both business strategy orientation and information system strategy orientation from their related real or existing scores. A value of zero indicates the degree of perfect harmony, while the value of minus five (-5) showed the degree of perfect misalignment between business orientation strategy and information systems orientation strategy. The degree of strategic alignment, as depicted in the table, ranged from -3.83 to -0.61, averaged at -1.22, with 0.40 standard deviation and 33.14 coefficient of variance.

4.2. Empirical Path Analysis Model and Evaluation Results

The empirical path model which was analyzed using SPSS Version 21 are depicted in the following figures.

Figure 3a: Empirical Path Analysis Model: Unstandardized Coefficients

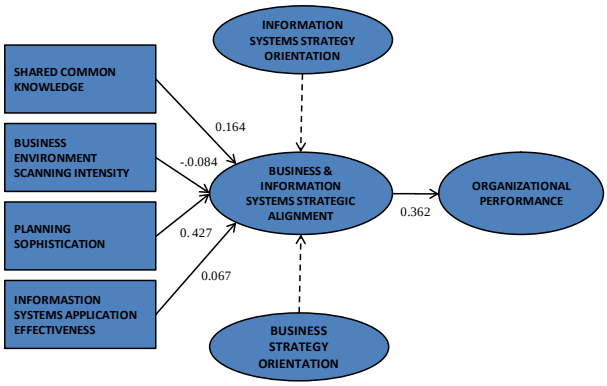
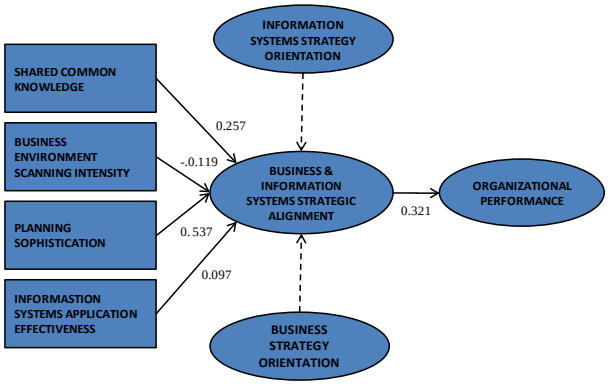


Figure 3b. Empirical Path Analysis Model: Standardized (Path) Coefficients



Significance of individuals unstandardized and standardized (path) coefficients with their associated variables (that is independent or exogenous variables, intervening or mediating variables, and dependent or endogenous variable) and coefficient of determination (R^2) of each submodel are shown in the table below.

Table 4: Path Coefficients of Inter-variables Causal Relationships and Their Significance

Effect of			Coefficients		CD[e]	Significance
IV[a]	on	DV[b]	Ustd[c]	Std[d]		
SCKN	→	BISA	0.164	0.257	0.475	0.043**
BESI	→	BISA	-0.084	-0.119		0.358
BPSP	→	BISA	0.427	0.537		0.133
ISUE	→	BISA	0.067	0.097		0.000***
BISA	→	RBOP	0.362	0.321	0.103	0.358

Notes: [a]IV: IndependentVariable (exogenous); [b]DV: DependentVariable (endogenous);
[c]Ustd: Unstandardized ; [d]Std: Standardized; [e]Coefficient of Determination (R^2)
** significant at alpha 5 percent (0.05)
*** significant at alpha 1 percent (0.01)

Submodel 1: Determinants of Business and Information Systems Strategic Alignment

As clearly depicted in either figure 3 or table 3 (rows 1-4), it is found that business and information systems strategic alignment is simultaneously affected by the degree of shared common knowledge (SCKN), business environment scanning intensity (BESI), business planning sophistication (BPSP), and information systems usage effectiveness (ISUE). These variables contribute to the strategic alignment between business strategy and information systems strategy for 47.50 percent. This indicates that rural banks managers take these variables into account when they set or formulate their business and information systems strategies. The resulting regression equation is as follows.

$$BIS = -3.318 + 0.164SCKN - 0.084BESI + 0.427BPSP + 0.067ISUE \quad (1)$$

This finding is line with those of Lee *et al*. (2009), Locke (2006), McCann *et al*. (2001), and Luo (1999) which generally found that the degree of shared common knowledge, effectiveness of information systems usage, and sophistication of business planning, and business environment scanning intensity contribute significantly to rural bank organizational performance—in this study through strategic alignment between business strategy and information systems strategy.

In clearly shown in table 4 above, variables which partially significantly affect the degree of strategic alignment between business and information systems strategies are information systems use/implementation effectiveness—ISUE ($p<0.01$) and shared common knowledge between business and information systems managers—SCKN ($p<0.05$). Rural bank managers consider effectiveness of information systems implement as the most important factor or variable. Accordingly, it should receive more attention and should be taken account in an effort to improve the degree of strategic alignment between business and information systems strategies and, in turn, in increasing rural banks organizational performance. The second factor or variable that requires special attention is the level of shared common knowledge between business and information systems managers. Business managers should have adequate information systems knowledge and information systems managers should have adequate knowledge regarding business management and its related strategies.

It should be further explained that although the two other variables partially have no significant effect on strategic alignment (i.e., business scanning intensity and business palnning sophistication), it does not mean that these two variables should be ignored. Rural bank managers must pay proportional attention towards both variables these variables simultaneously provide contribute—in different magnitudes, strengths, and direction—in influencing the degree of strategic alignment.

Submodel 2: Impact of Business and Information Systems Strategic Alignment on Rural Bank Organizational Performance

In a relatively similar magnitude, as shown in figure 3a and table 4 (row 5), the degree of business and information systems strategic alignment significantly affects rural bank organizational performance. Following is the resulting regression equation.

RBOP = 3.786 + 0.362BISA (2)

The importance of ICT (i.e., information systems) knowledge, skill, and usage in managing business, including micro and small business as well as rural banks , has been mentioned by Lee *et al*. (2009), Olugbode*et al*. (2008), and Locke (2006). ICT strategy or strategic use, according to Masa'deh *et al*. (2008) and Parker (2000), plays a substantial role in improving firm performance. Meanwhile, a comprehensive ICT strategy can only be formulated if the micro and small business practitioners and rural bank managers have adequate and relevant ICT and business environment knowledge and skill (Asgarkhani 2008; Abiodun 2009). Accordingly, finding of this study is supported to some extent by findings of those previous mentioned researches.

It is generally accepted that a firm in any industries, including rural banks, regardless of the scale of its business, operated in a business environment that is not a vacuum. The business environment is changing rapidly and very dynamic, in terms of economic, political, social, cultural, legal and technology. Therefore, a firm to be able to retain and develop its organizational performance is required to have well-developed business strategy and information systems strategy. Moreover, according to the findings in this study, both strategies (i.e., business strategy and information systems strategy) should have a high degree of strategic alignment. Strategic alignment is required by a firm in order to face the rapid and dynamic changes in the business environment that occurs primarily in the economic aspects, more precisely, aspects of management (i.e., finance, marketing, human resources, operations, etc.) and aspects of technology whose changes are driven primarily by rapid development in information and communication technology (ICT) including information systems.

5. CONCLUSION

The degree of shared common knowledge amongst business and information systems managers, intensity of business environment scanning, business planning sophistication, and effectiveness of information usage in managing rural banks along with strategic alignment between business strategy and information system strategy play important roles in improving rural bank organizational performance. They simultaneously affect rural bank organizational performance through strategic alignment between business strategy and information system strategy. Partially, however, only the degree of shared knowledge and effectiveness of information systems usage that significantly affect business and information systems strategic alignment and, in turn, rural bank organizational performance.

6. IMPLICATIONS

Since rural bank organizational performance is affected bythe degree of alignment between business and information systems strategies, it is important for rural bank managers to have adequate knowledge andskills related to these two strategies: business strategic management and strategic information systems management. An integrated micro financial management training program that combine these subjects—in addition to conventional subjects such as, among others, financial management, marketing management, and human resource management—will be an appropriate alternative to improve organizational performance of rural banks.

REFERENCES

Abiodun, A.J. (2009). 'EmpiricalEvidence of Executives' PerceptionandScanning of Business Environment in Nigeria,' *BuletinulUniversităţii Petrol–Gaze din Ploieşti*, Vol. LXI, No. 3/2009, 27-35.

Albright, K. S. (2004). EnvironmentalScanning: Radar for Success. *Information Management Journal*, 38 (3), 38-45.

AmericanBankersAssociation (2014), *The Business of Banking: WhatEveryPolicy Maker NeedstoKnow*, TheAmericanBankersAssociation, Washington, D. C., USA.

Asgarkhani, M. (2008). 'CurrentTrends in Strategic Management of Information andCommunicationTechnology,' *International Review of Business Research Papers*, Vol. 4. No. 1, 55-67.

Ashrafi, R. and M. Murtaza (2008). 'Useand Impact of ICT on SMEs in Oman.' *The Electronic Journal Information Systems Evaluation,* Vol. 11, Issue 3 2008, 125 - 138,

Audet, J. and G. d'Amboise (1998). 'TheRelationshipbetween Strategic ScanningActivities

Badrinath, R. and G. Wignaraja, (2004). 'Building Business Competitiveness,' *International TradeForum*Issue 2/2004. Quarterly Magazine, International Trade Center UNCTAD/WTO, Geneva, Switzerland.

Brynjolfsson, E. (1993). 'The Productivity Paradox of Information Technology,'*Communication of the ACM*, Vol. 36, No. 12, December 1993, 67-77.

Byrne, B. M. (1994). *Structuralequationmodelingwith EQS and EQS/Windows*. ThousandOaks, CA: Sage Publications.

Chan, Y. E., S. L. Huff, D. W. Barclay, and D. G. Copeland (1997), "Business Strategy Orientation, Information Systems Strategic Orientation, and Strategic Alignment,' Information System Research, Vol. 8, Issue 2, pp. 125-150.

, R. Sabherwal, and J. B. Thatcher (2006), "AntecedentsandOutcomes of Strategic IS Alignment: An EmpiricalInvestigation," IEEE Transactions on Engineering Management, Vol. 53, No. 1, February 2006.

Chooi-LengAng, Mark Davies, Paul N. Finlay (2000). 'MeasurestoAssessthe Impact of Information Technology on Quality Management,' *International Journal of Quality&Reliability Management*, Vol. 17 Iss: 1, 42 - 66

Ebben, J.J. and A.C. Johnson (2005). 'Efficiency, Flexibility, orBoth? EvidenceLinkingStrategytoPerformance in Small Firms,' *Strategic ManajemenJournal*, 26: 1249-1259.

Eckhardt, J.E. and S. Shane (2006). *Innovationand Small Business Performance:*

Enterprises in Gauteng,' *Communication of the IBIMA*, Vol. 2011 (2011), Article ID 369288, 1-13.

Hale, A.J. (1995). *Measuring IS Strategic Alignment in Small Firms*. Unpublished Master Thesis. University of Canterbury. Christchurch. New Zaeland.

Hein, S.E., T. M. Koch, and S. MacDonald (2005) "Theuniqueness of communitybanks." *EconomicReview*, First Quarter 2005.

Henderson, J.C. and N. Venkatraman (1989). 'Strategic Alignment: A Framework for Strategic Information Technology Management,' *Center for Information System Research WorkingPaper* No. 190. Massachusetts Institute of Technology.

Hua, G.B. (2007). 'Applyingthe Strategic Alignment Model to Business and ICT Strategies of Singapore's Small andMedium-sized Architecture, Engineeringand Construction Enterprises,' *Construction Management andEconomics*, February 2007, 157-169.

Hussin, H. (1998). *Alignment of Business Strategyand IT Strategy in Small Business*, UnpublishedDoctoralDissertation, LoughboroughUniversity, Leicestershire, UK.

Indonesia Financial Service Authority (2014), "Indonesia Banking Statistics January 2014," Indonesia Financial Service Authority, Jakarta.

Ion, P. and Z. Andreea (2008). 'Use of ICT in SMES within the Sector of Service,' *Annals of Faculty of Economics*, 2008, vol. 4, issue 1, 481-487

Keramati, A. (2007).' AssessingtheEffects of Information Technology on FirmPerformanceusingCanonicalCorrelation Analysis: A Survey in Iran Car Part Suppliers Sector,' *Proceedings of World Academy of Science, EngineeringandTechnology*, Volume 21, May 2007, 392-399.

Lazenby, J.A.A. (1999). 'Entrepreneurial Strategic Management: An Approach for Small Business Growth,' *www.sbaer.uca.edu/Research/icsb/1999/43.pdf (accessed 15 July 2012)*

Lee, M.S., J. Kim and Y. Choi, (2009). 'Effects of IT Knowledge and Media Selection on OperationalPerformance of Small Firms,' *Small Business Economics*, Vol. 32, 241-257.

Locke, S. (2006). 'Information andCommunicationTechnologyAdoptionand Small andMedium-sized Enterprise Growth in New Zealand,' *Journal of Small Business Management 2006 44(2), 298–301*

Masa'deh, R., Z. Hunaiti, and A. A. B. Yaseen (2008). 'An Integrative Model Linking IT-Business Strategic AlignmentandFirmPerformance: TheMediating Role of PursuingInnovationand Knowledge Management Strategies,' *Communications of the IBIMA* Volume 2, 2008

McCann, J. E., A.Y. Leon-Guerrero, and J.D. HaleyJr. (2001). Strategic GoalsandPractices of InnovativeFamilyBusinesses*,' Journal of Small Business Management*, Vol. 39 (1), 50-59

Mugler, J. (2003). 'TheConfigurationApproachtothe Strategic Management of Small andMedium-sized Enterprises,' available at *www.bmf.hu/conferences/jubilee/Mugler.pdf. (Accessed on June, 5th, 2010)*

Olugbode, M., I. Elbeltagi, M. Simmons, and T. Biss (2008). 'TheEffect of Information Systems on FirmPerformanceandProfitability Using a Case-studyApproach.' *The Electronic Journal Information Systems Evaluation* Volume 11 Issue 1, 35 – 40.

Parker, A.R. (2000). 'Impact on theOrganizationalPerformance of theStrategyTechnologyPolicyInteraction,' *Journal of Business Research*, Vol. 47, 55-64

Singh, A. and B. Desai (2013), 'Strategic Business Alignment: A study of role of IT in

Strategic Business Alignment in Banking sector of India,' *Global Research Analysis*, Vol. 2, Issue 1, pp. 98-101.

Sugiharto, T. (2012), "Contribution of Rural Banks to The Indonesia's Economy: A Preliminary Investigation" *Proceedings of the Second Uzbek-Indonesia International Joint Conference on Economic and Management towards Nation Character Development***.** Tashkent, Uzbekistan, 21–22 September 2012.

Sugiharto, T., E.S. Suhendra, dan B. Hermana (2008a). *Model PeningkatanProduktivitas dan InovasiUsahaKecilmelaluiPenerapanTeknologi Internet*.LaporanPenelitianHibahBersaingDirektoratJenderalPendidikanTinggi, DepartemenPendidikanNasional (TahunKedua).

Sugiharto, T., E.S. Suhendra, dan B. Hermana (2008b). 'PengaruhTeknologiInformasiterhadapKinerjaUsahaKecilBidangManufaktur dan Agribisnis,' *ProsidingSeminarNasionalTeknologi (SATEK) ke 12*, Bandar Lampung, Oktober 2008.

Sugiharto, T., E.S. Suhendra dan B. Hermana (2010a). 'Information Technologyand Business Performance: A Case Study on Small FoodProcessingFirms,' *Journal of Global Business Administration*, Vol. 2, No. 1, March 2010.

Sugiharto, T., E.S. Suhendra dan B. Hermana (2010b). 'Effects of Information Technology on FirmPerformance: Do Small Business OwnersBelieveIt?' *Proceedings of the Second Global Management Conference on Globalization, Sustainability, andEconomic Development*. Denpasar, Bali 27 April – 2 May 2010.

Sugiharto, T., E.S. Suhendra dan B. Hermana (2007). *Model PeningkatanProduktivitas dan InovasiUsahaKecilmelaluiPenerapanTeknologi Internet*.LaporanPenelitianHibahBersaingDirektoratJenderalPendidikanTinggi, DepartemenPendidikanNasional (TahunPertama).

Turgay, T. and H.Z. Kassegn (2005). 'Empirical Strategic Management Model for Small Businesses in theTurkishRepublic of NorthernCyprus,' *Review of Social, Economic& Business Studies,* Vol.3/4, 135-160.

Venkatraman, N. and V. Ramanujam (1986). 'Measurement of Business Performance in Strategy Research: A Comparison of Approaches,' *Academy of Management Review,* Vol. 11, 801-814

Wang, C., E.A. Walker, and J. Redmon (2006). 'OwnershipMotivationand Strategic Planning in Small Business,' *Journal of AsiaEntrepreneurshipandSustainability, Vol. 2, No. 4.*

Zhang, X., S. Majid, and S. Foo (2011) "The Contribution of Environmental Scanning to Organizational Performance," S*ingapore Journal of Library & Information Management*, Vol. 40, 65-88.