

Does Business-IT Alignment Still Out of Concern In Indonesian Banking Industry?

Edhi Juwono¹, Dyah Budiastuti², Ford Lumban Gaol³

¹ ABFI Institute of Perbanas, ^{2,3}Bina Nusantara University, Doctor of Research in Management Program Jalan KebonJeruk Raya No.27, KebonJeruk, Jakarta Barat, Jakarta 11530

¹edhi.juwono@perbanas.id, ²dbudiastuti@binus.edu, ³fgaol@binus.edu

ABSTRACT

Business performance is still a problem for banks in Indonesia. They have to cope with the higher standard of performance demanded by Financial Services Authority (FSI) since they have to face a more challenging environment after ASEAN Financial Integration by 2020. Therefore, the present research sought to investigate the business performance (read as bank's performance) as the output of organizational capabilities when it was impacted by business strategy, IT capability and business-IT alignment. The data are collected from 32 banks associated in Indonesian Banks Association (Perbanas). The unit analysis is board of director/member, or a bank's commissioner. The collected data is analyzed using Smart PLS application. It found that business strategy had a better contribution comparing to IT capability and business-IT alignment in forming organizational capabilities impact on business performance.

Keywords

business performance, organizational capabilities, business strategy, IT capability, business-IT alignment

Article Received: 10 August 2020, Revised: 25 October 2020, Accepted: 18 November 2020

Introduction

In the Indonesian banking industry, bank performance is still an issue that continues to be interesting to observe. In 1998—first monetary crisis—16 banks were closed, (Siswanto, (2004); Kurniawan, (2013), Lembong, (2016)) and it was just the beginning. In 1999, 38 banks were also shut down. According to Kurniawan (2013), in 2004 two banks were closed, and in 2005 one bank was liquidated. This means during a decade—the period of 2004-2014—commercial banks decreased from 133 banks to 119 (Otoritas Jasa Keuangan, 2016). Even though the number of banks has already been decreased, Otoritas Jasa Keuangan (OJK) or Financial Services Authority—further will be mentioned as FSA—still considered that the business performance of the financial service industry still needs to be strengthened to catch up with the regional or global financial integration. (Otoritas Jasa Keuangan, 2016). It means, bank performance is still a serious issue for the banking industry in Indonesia. On the context of strategic management, they have to perform their organizational capabilities for achieving a business performance in the context of fulfilling the ASEAN Financial Integration (AFI) requirement of semi-integrated financial market by 2020. Therefore, the bank that cannot improve its organizational capabilities to achieve a business performance, in the context of fulfilling the standard of AFI, has to close its operations.

Specifically, the construct of business performance in this study, is referring to Indonesian central bank, “a result of activities or actual outcomes of a bank's strategic management process.” Business performance will be measured in for perspective of Balance Score Card (Karami, Sahebalzamani, & Sarabi, 2015), i.e. financial perspective, customer perspective, internal process, and learning and growth.

Dealing with the problem, the research is conducted in reference to create a conceptual problem-solution model, which is going to be translated into a research model (see figure 1).

The following paragraphs contained descriptions of previous studies as a basis of constructing the conceptual model.

Literature Review

Some researchers are putting business performance in relation to business strategy, they found that business strategy correlates or impacts business performance (Bastian & Muchlish, 2012; Chung, Hsu, Tsai, Huang, & Tsai, 2012; Li & Tan, 2013; Martinez-Simarro, Devece, & Llopis-Albert, 2015; Oroh, 2016). Bastian and Muchlish (2012) put business strategy and performance measurement systems as antecedent, and perceived uncertainty environment as a moderation. They implemented the research model to some manufacturing company in West Java and Banten—the unit analysis is a manager in the company. The research showed business strategy has a significant positive correlation with the business performance. But, Chung et al. (2012) have a different finding compared to Bastian and Muchlish (2012). They found that business strategy does not have a direct relationship with business performance. In line with Bastian and Muchlish (2012), Li and Tan (2013) mentioned that business strategy directly impacts business performance. Unfortunately, what Martinez-Simarro et al. (2015) found in their study does not support the finding of Bastian and Muchlish (2012), Li and Tan (2013) and Oroh (2016). Their study found that organizational performance is not directly impacted by business strategy. It means business strategy indirectly impacts on organizational performance. In this case Martinez-Simarro et al. (2015) is in line with what Chung et al. (2012) found. The contradictory among those studies encouraged this study to propose a hypothesis: H1:

business strategy impacts on organizational capabilities (BS→OC)

On the other hand, the business or organization performance is also a topic, which is associated with the information system/technology Sugiharto, Suhendra, and Hermana (2010), Chatzoglou, Diamantidis, Vraimaki, Vranakis, andKourtidis (2011), Lee, Xu, Kuilboer, and Ashrafi (2012), Sugiarto (2012), Benitez-Armando and Walczuch (2012). Based on research in small and medium enterprise (SMEs), Sugiharto et al. (2010) found that IT—in their case IT is represented by Internet adoption—directly impacts on firm performance in Indonesia. Sugiarto (2012) found that IT—in his study, refers to Internet banking adoption—impacts on Indonesia bank performance with the large size. If Sugiharto et al. (2010) and Sugiarto (2012) found that IT directly impacts business or firm performance, Chatzoglou et al. (2011) found that IT does not directly impact business performance. They found that there are two different concepts (moderation and intervene) between IT and business performance. Thefinding is supported by Lee et al. (2012) and Benitez-Armando and Walczuch (2012). Chatzoglou et al. (2011) and Lee et al. (2012) found there is mediating factors between IT capability and firm performance. Those studies encouraged this study to propose a hypothesis: H2: IT capability impacts on organizational capabilities (IT→OC)

The other studies described the relation between business performance and the IT-business/strategy alignment (Bayzidnejad, Kafche, &Shafeai, 2012; Yayla& Hu, 2012; Johansson, Sudzina, &Pucihar, 2014; Charoensuk, Wongsurawat, &Khang, 2014). Bayzidnejad et al. (2012), based on the Iranian banking industry study, found that there was a significant correlation between IT and business strategy. It can be said that this study showed the importance of business-IT alignment. Yayla and Hu (2012), based on a research conducted in Istambul, Turkey, involving 177 companies. They found that business-IT alignment has an impact on (organizational) performance. The finding is supported by Charoensuk et al. (2014). Based on their research, involving 312 hotels in Thailand, they found business-IT alignment (BIA) as a variable which is directly impacting performance. Even though no research has been found on mediation between BIA and performance, but along with the previous hypotheses, this study proposes: H3:

BIA impacts organizational capabilities (BA→OC) since some studies related organizational capabilities to performance (Shou, Chen, & Yang, 2014; Lin & Wu, 2014;Ouakouak, Ouedraogo, and Mbengue, 2014). Shou et al. (2014), Lin and Wu (2014), Ouakouak et al. (2014), found that organizational capabilities as a mediating factor that had a direct impact to business performance. Only one study found that (Makkonen, Pohjola, Olkkonen, &Koponen, 2014) organizational capabilities were not a direct impact on performance (in their study was innovative performance), there was organizational change as a mediator between them. Those three studies encourage this study to propose the further hypothesis: H4: Organizational capabilities impacts business performance (OC→BP)

Materials And Methods

Data was collected using questionnaires. It was distributed to all of the banks associated with the Association of National (Indonesian) bank during mid-June and mid-July 2017, and, from 77 members, only 32 banks completed the questionnaires. 31.3% of respondents are CEO, 31.3% are Compliance directors, 9.4% are commissioners, and the rest are the other C-levels and middle managers who represented the CEO. The SmartPLS (v 3.2.6) software was applied in initial data analyzing.

The survey technique was applied to get information about the bank’s performance (15 items), organizational capabilities of a bank (3 items), business strategy of a bank (10 items), IT capability of a bank (9 items), and business-IT alignment of a bank (9 items). The business performance section was adapted from Karami et al. (2015); the organizational capabilities section was adapted from Ouakouak et al. (2014); the business strategy section was adapted fromKarami et al. (2015); the IT capability section was adapted from Lu and Ramamurthy (2011); business-IT alignment section was adapted from Lee et al. (2008). The survey is conducted using 5-point Likert scale. The following table 1 described an operationalization of variables including dimensions and indicators.

Table 1 Variables, Dimensions and Indicators

Variable	Reference	Dimensions	Indicators
Business Strategy	Karami, Sahebalzamani, & Sarabi (2015)	Innovation	innovation as a goal
			product development and design
			responsiveness to customer new business opportunity
		Quality Enhancement	quality product
			continuous improvement
		Cost Reductio	cost reduction and efficiency
			cost control
operational efficiency simplification of SOP			
Information Technology Capability	Lu & Ramamurthy (2011)	IT Infrastructure Capability	data management
			network
			application
	IT-Business Spanning Capability	IT Facilities	IT vision support business value
			integration of business strategy and IT strategy
			value of IT investment

Variable	Reference	Dimensions	Indicators
Business-IT Alignment	Lee et al. (2008)	IT Proactive Stance	effective and flexible IT plan
			finding necessary new IT
			supportive IT climate
			continuous enhancement in IT use
		Social Alignment	collaboration between non-IS and IS group
			communication between non-IS and IS group
			teamwork
			collaborated motivation
			frequent communication
Organizational Capabilities	Ouakouak, Ouedraogo, & Mbengue (2014)	Technical Alignment	good fit
			organization and IT linkage
			IT architecture and IT plan
			business process and IT process
			change anticipation
Business Performance	Karami, Sahebalzamani, & Sarabi (2015)	Financial Perspectives	new idea generation
			fast taking decision
			financial efficiency
			return on asset
			cost reduction
		Customer Perspectives	customer retention
			grabbing new customer
			customer service
			customer complaints
			better procedure
		Internal Process	improvement facilities
			new ideas support
			customer support
			forecasting systems
			products and services growth
		Learning and Growth	Customers growth
			banking services media growth

Results And Discussions

All variables have significant and high factor loading values (> 0.6). After factor analysis, correlation analysis (Cronbach's alpha) is performed to make sure the reliability of each factor is significant. Cronbach's alpha is greater than 0.7 means high reliability exists. (Karami et al., 2015). We can see in the table 2 that all variables are reliable since none of them have Cronbach's alpha below 0.7.

Table 2 Coefficient of Reliability Test

Variable	Cronbach's Alpha	Composite Reliability
Business Performance	0.757	0.815
Organizational Capabilities	0.913	0.945
Business Strategy	0.860	0.888
IT Capability	0.933	0.944
Business-IT Alignment	0.947	0.956

Figure 1 shows that 40 indicators of the variables are valid since none of them have loading factor below 0.7.

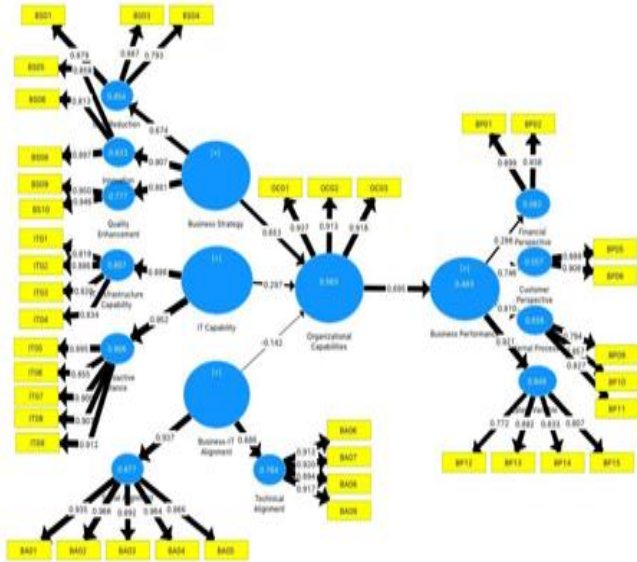


Figure 1 Result of the Operational Model

The first and fourth hypotheses are accepted since the tstat are bigger than 1,96 and P-values are below 0,05 (with the confidence level of 95%). So, the finding of this study supports the finding of Chung et al. (2012) and Martinez-Simarro, et al. (2015); that business strategy did not impact business performance directly. The results of this study also support the findings of Shou et al. (2014), Lin and Wu (2014), Ouakouak et al. (2014); that organizational

capabilities is a mediator with the direct impact on business performance.

The second and third hypotheses are not accepted since the t -statistic lower than 1,96 and P -values are upper 0,05 (with the confidence level of 95%). The result does not support the finding of Lee et al. (2012) that IT capability—which they call IT service competence—significantly impacts operation level organizational capabilities. Perhaps, this relationship is still a concern of operational level, and has not been a concern of the strategic level. The unaccepted of third hypothesis is a strong signal to understand why business-IT alignment a concern of banks' top management has not been. Actually, it is a contradictory comparing to the finding of some studies which was describing that Business-IT alignment has been consistently ranked at the top among other contemporary IT related top management concerns (Huang & Hu, 2007; Bayzidnejad et al., 2012; Kappelman, McLean, & Johnson, 2014).

The overall result of calculation is shown in table 3.

Table 3 The Coefficient Path

Hypotheses	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T-Statistics (stat) (O/STDEV)	P-Values
H ₁ BS → OC	0.653	0.632	0.161	4.063	0.000
H ₂ IT → OC	0.297	0.295	0.190	1.564	0.118
H ₃ BA → OC	-0.142	-0.115	0.203	0.698	0.486
H ₄ OC → BP	0.695	0.695	0.069	10.098	0.000

Conclusions

There is an interesting thing in the findings. It seems there is a paradox in the Indonesian banking industry. As an IT based industry, the result shows that some top management of banks had not put IT and moreover business-IT alignment as their top concern for strengthening their organizational capabilities. Perhaps they still consider the IT as an operational tool for assisting to ensure efficiency and effectiveness. (Kristin & Ekawati, 2016). In other words, they have not considered IT as a strategic investment.

Acknowledgment

This paper is developed from a published conceptual paper titled, "Aligning IT with Business Model to Perform Organizational Capabilities in Achieving Business Performance" (Juwono, Prabowo, Budiastuti, & Gaol, 2014). This paper is also an offering for the late Dyah Budiastuti, the encourager and the role model. We also would like to thank the board and staff members of Doctorate Program of Research in Management, Bina Nusantara University; without their support, this article would not have been possible.

A special thanks to the reviewers and the executive editors who let this article become part of their publication

References

- [1] Bastian, E., & Muchlish, M. (2012). Perceived Environment Uncertainty, Business Strategy, Performance Measurement Systems and Organizational Performance. *Procedia-Social and Behavioral Sciences*, 65(ICIBSoS), 787–792.
- [2] Bayzidnejad, M., Kafche, P., & Shafeai, R. (2012). Alignment of IT with Business Strategy in Banking Industry of Iran. *Interdisciplinary Journal of Contemporary Research in Business*, 4(2), 391-410.
- [3] Benitez-Armando, J., & Walczuch, R.M. (2012). Information Technology, the Organizational Capability of Proactive Corporate Environmental Strategy and Firm Performance : A Resource-Based Analysis. *Eur. J. Inform. Syst.*, 21, 664-679.
- [4] Charoensuk, S., Wongsurawat, W., & Khang, D. B. (2014). Business-IT Alignment: A practical research approach. *The Journal of High Technology Management Research*, 2(2), 132-147.
- [5] Chatzoglou, P. D., Diamantidis, A. D., Vraimaki, E., Vranakis, S. K., & Kourtidis, D. a. (2011). Aligning IT, strategic orientation and organizational structure. *Business Process Management Journal*, 17(4), 663-687.
- [6] Chung, Y.C, Hsu, Y.W., Tsai, S.C., Huang, H.L., & Tsai, C.H., (2012). The Correlation between Business Strategy, Information Technology, Organisational Culture, Implementation of CRM, and Business Performance in High-Tech Industry. *South African Journal of Industrial Engineering*, 23, 1–15.
- [7] Huang, C. D. & Hu, Q. (2007). Achieving IT-Business Strategic Alignment via Enterprise-Wide Implementation of Balanced Scorecards. *Information Systems Management*, 24, 173-184.
- [8] Johansson, B., Sudzina, F., & Pucihar, A. (2014). Alignment of business and information strategies and its impact on

- business performance. *Journal of Business Economics and Management*, 15(5), 886-898.
- [9] Juwono, E., Prabowo, H., Budiastuti, D., & Gaol F. (2014). Aligning IT with Business Model to Perform Organizational Capabilities in Achieving Business Performance. *Journal of Computer Science*, 10(12), 2636-2639.
- [10] Kappelman, L., McLean, E., & Johnson, V. (2014). "2015 IT Trend Study", presenting in a Symposium of the Society of Information Management (SIM) on November 4, 2014. Retrieved from http://cdn2.hubspot.net/hub/326756/file-1997013113-pdf/SIM-APC/SIM_2015_IT_Trends_Preview.pdf?t=1429215910238
- [11] Karami, A., Sahebalzamani, S. & Sarabi, B. (2015). The Influence of HR Practices on Business Strategy and Firm Performance: The Case of Banking Industry in Iran. *IUP Journal of Management Research*, 14(1), 30-53.
- [12] Kristin, D. M., & Ekawati, E. (2016). Knowledge Management System Evaluation. *Pertanika J. Soc. Sci. & Hum*, 24(8), 1-8.
- [13] Kurniawan, A. (2013). Kajian Hukum terhadap Penyelesaian Likuidasi Bank yang Dicabut Izin Usahanya sebelum Berlakunya Undang-Undang No. 24 Tahun 2004 tentang Lembaga Penjamin Simpanan. *Buletin Hukum Perbankan dan Kebanksentralan*, 11(1), 39-69.
- [14] Lee, O. D., Xu, P., Kuilboer, j. & Ashrafi, N. (2012). It impacts on performance of service firms through operation-level dynamic capability. *Journal of Applied Business Research*, 28(6) 1283-1294.
- [15] Lembong, A. (2016). Pencabutan izin Usaha dan Likuidasi Bank Menurut Undang-Undang No.21 Tahun 2011 tentang Otoritas Jasa Keuangan. *Lex Privatum*, IV (5), 5-12.
- [16] Li, Y. & Tan, C.H. (2013). Matching business strategy and CIO characteristics: The impact on organizational performance. *Journal of Business Research*, 66(2), 248-259.
- [17] Lin, Y., & Wu, L.-Y. (2014). Exploring the role of dynamic capabilities in firm performance under the resource-based view framework. *Journal of Business Research*, 67(3), 407-413.
- [18] Lu, Y. & Ramamurthy, K. (2011). Understanding the Link Between Information Technology Capability and Organizational Agility: An Empirical Examination. *MIS Quarterly*, 35(4), 931-954.
- [19] Makkonen, H., Pohjola, M., Olkkonen, R., & Koponen, A. (2014). Dynamic capabilities and firm performance in a financial crisis. *Journal of Business Research*, 67(1), 2707-2719.
- [20] Martinez-Simarro, D., Devece, C. & Llopis-Albert, C. (2015). How information systems strategy moderates the relationship between business strategy and performance. *Journal of Business Research*, 68(7), 1592-1594.
- [21] Oroh, A.N.H. (2016). Does Synergy Mentality Mediate Between Strategic Planning Relationship and a Firm's Performance? An Empirical Study of Manufacturing Companies in Indonesia. *Pertanika J. Soc. Sci. & Hum*, 24(8), 125-138.
- [22] Otoritas Jasa Keuangan. (2016). Master Plan Sektor Jasa Keuangan Indonesia 2015-2019. Jakarta: Otoritas Jasa Keuangan.
- [23] Ouakouak, M. L., Ouedraogo, N., & Mbengue, A. (2014). The mediating role of organizational capabilities in the relationship between middle managers' involvement and firm performance: A European study. *European Management Journal*, 32(2): 305-318.
- [24] Shou, Z., Chen, J., Zhu, W., & Yang, L. (2014). Firm capability and performance in China: The moderating role of guanxi and institutional forces in domestic and foreign contexts. *Journal of Business Research*, 67(2), 77-82.

- [25] Siswanto, D. (2004). Karakteristik Bank Likuidasi dan Restruktutisasi di Indonsia. JurnalKeuangan dan Akuntansi Indonesia, 1(2), 45-62.
- [26] Sugiarto, A. (2012). Adopsi Internet Banking bagiKeunggulan Performa Perbankan: sebuahStudi pada SektorPerbankan di Indonesia. JurnalDinamikaAkuntansi, 4(1), 13-19.
- [27] Sugiharto, T., Suhendra, E.S., & Hermana, B. (2010). Information Technology and Business Performance: A Case Study on Small Food Processing Firms. Journal of Global Business Administration, 2(March), 84-95.
- [28] Yayla, A. A., & Hu., Q. (2012). The impact of IT-business strategic alignment on firm performance in a developing country setting: exploring moderating roles of environmental uncertainty and strategic orientation. European Journal of Information Systems, 21(4), 373-387.