

Make Your Publications Visible.

A Service of



Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre

Ichsan, Mohammad; Hamsal, Mohammad; Sri Bramantoro Abdinagoro

## **Article**

The role of project management office in managing project portfolio management: A descriptive study in Indonesian banks

Global Business & Finance Review (GBFR)

# **Provided in Cooperation with:**

People & Global Business Association (P&GBA), Seoul

Suggested Citation: Ichsan, Mohammad; Hamsal, Mohammad; Sri Bramantoro Abdinagoro (2023): The role of project management office in managing project portfolio management: A descriptive study in Indonesian banks, Global Business & Finance Review (GBFR), ISSN 2384-1648, People & Global Business Association (P&GBA), Seoul, Vol. 28, Iss. 2, pp. 45-52, https://doi.org/10.17549/gbfr.2023.28.2.45

This Version is available at: https://hdl.handle.net/10419/305890

# Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.



https://creativecommons.org/licenses/by-nc/4.0/

#### Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.





GLOBAL BUSINESS & FINANCE REVIEW, Volume. 28 Issue. 2 (APRIL 2023), 45-52 pISSN 1088-6931 / eISSN 2384-1648 | Https://doi.org/10.17549/gbfr.2023.28.2.45 © 2023 People and Global Business Association

# **GLOBAL BUSINESS & FINANCE REVIEW**

www.gbfrjournal.org

# The Role of Project Management Office in Managing Project Portfolio Management: A Descriptive Study in Indonesian Banks

Mohammad Ichsan<sup>†</sup>, Mohammad Hamsal, Sri Bramantoro Abdinagoro

Management Department, BINUS Business School Undergraduate Program, Bina Nusantara University, Jakarta, Indonesia

#### ABSTRACT

Purpose: This paper presents a preliminary study of the complete research to explore how strategic initiatives are implemented in Indonesian banks. It has the aim to descriptively compare the Project Portfolio Management (PPM) Capabilities and bank performance between banks that are applying Project Management Office (PMO) practices and not.

Design/methodology/approach: Empirical research has been performed through a survey using questionnaires to define the contribution of formal project management office practices in managing strategic initiatives in Indonesian banks. The data from 82 banks from a total of 115 banks in Indonesia based on the list of Indonesian Financial Authority were collected and analyzed using descriptive analysis with help of statistical tools SPSS 22.

Findings: As a preliminary stage, this paper found that banks with formal project management office practices tend to be more effective in managing their strategic initiatives.

Research limitations/implications: However, further analysis still needs to be performed to explore how project PPM capabilities and PMO practices influence the bank's performance positively.

Originality/value: This study introduces how the project management office and project portfolio management practices in Indonesian Banks at glance and how its comparison those with and without project management practices.

Keywords: Dynamic capabilities, Firm performance, Indonesian banks, Project management office, Project portfolio management

#### I. Introduction

Business competition, government regulation, economic environment, rapid technology growth, globalization, and customer demands are becoming more uncertain in today's business practice (Wong et al., 2011). It leads to dynamic changes in the organization's level as they have to change the strategies. The recent economic turbulence, marked

Received: Nov. 22, 2022; Revised: Jan. 27, 2023; Accepted: Feb. 9, 2023

† Mohammad Ichsan E-mail: d3919@binus.ac.id

by changes that are intermittent, sudden, and sometimes uncontrolled, the firm should be able to make quick action and responsive and innovative strategies for survival in form of strategic initiatives (Hamel, 1996). Based on In-depth Report involving project portfolio managers from 443 companies around the world in 2012, it can be concluded that 77% of them run a project more successfully because they apply highly effective project portfolio management (Project Management Institute, 2013c). They are compared with 65% of the projects who have minimally effective portfolio management, where this function mainly lies on PMO (Dietrich & Lehtonen, 2005; Killen et



al., 2008b; Martinsuo & Lehtonen, 2007). Nevertheless, a global report from Economist Intelligence Unit (The Economist Intelligence Unit, 2013) concluded that only an average of 56% of strategic initiatives were successfully implemented, where most of the respondents are coming from financial services. In the Indonesian context, the Indonesian Financial Services Authority (Indonesia Financial Services Authority, 2015) concluded that Indonesian banks are dominating 74% of the total asset composition in Indonesian Financial Services. According to Indonesian Banking Survey (Pricewaterhouse Coopers, 2018), 43 % of the respondents agreed that technology is the main strategic driver, however, only half of the respondents from foreign and state-owned commercial banks felt that the technology strategy is very clear. Despite this unclear point of that statement, it is perceived that there is still a gap in technology strategy implementation, which also could be affected by technopreneurial orientation (Buana, 2022).

Previously there was a limitation regarding the role of PMO both conceptually through research and practically in daily business practices in Indonesian banks, meanwhile the global best practices show the significant role of PMO in managing project portfolio management in financial services (The Economist Intelligence Unit, 2013). Since there is a lack of empirical studies in banking sectors to find how the implementation of the strategic initiatives affects the bank performance, a series of structured interviews with a few banks, leading Indonesian Bank Association and Regulatory have been performed to strengthen the preliminary assumption that Indonesian banks face challenges in managing the implementation of the strategic initiatives, especially in how PMO practices bring benefit to the implementation of strategic initiatives in Indonesian banks. The result from the interviews provides us the information on how they have been facing challenges in managing strategic initiatives and how PMO has a positive influence on strategic initiative implementation. However, it is still unknown whether the PMO brings differences to banks that have one in managing their strategic initiatives.

This paper has the main purpose to compare how PMO practices bring a difference in managing PPM

capabilities and how the firm performance of the banks using secondary data from the year 2013 until 2015 differs between banks with and without PMO using descriptive analysis.

# II. Literature Review

The basic thought of this paper is from the theoretical perspective of dynamic capabilities that has been initiated by Teece et al., (1997); Teece and Pisano, (1994) as an enhancement resource-based view or RBV (Barney, 1991), as RBV has not adequately explained how and why certain organizations have a competitive advantage in situations of rapid and unpredictable change (Eisenhardt & Martin, 2000). In line with Porter (Porter, 1985; 1991), Boppel (2013) defines strategic initiatives as temporary undertakings at renewing or expanding the capabilities of firms, which may involve activities such as corporate ventures, product, and process development, acquisitions, and alliances, reorganization efforts, and other strategic business development activities. Understanding the character of strategic initiatives as temporary, which is the same as the character of projects that are defined by the Project Management Institute (2017a), understanding strategic initiatives as projects can be taken into consideration.

Smith (2011) argued that there are several guidelines for successful strategy implementation such as building a capable organization. The context of building a capable organization is in line with the building capability of the organization to implement the strategy and hence it is a perspective of dynamic capabilities in performing the strategy implementation. The concept of dynamic capabilities has been further thought by Killen and Hunt (2010), Killen et al. (2012), Martinsuo (2013), and Kaiser et al. (2015) through their research have found that the project portfolio management capabilities are identified as dynamic capabilities that lead the companies to gain a more competitive advantage. Furthermore, the

concept has also been further explored by Hamsal et al. (2021) that the environmental turbulence affect significantly the dynamic capabilities. It is a high-level capability involving a team of strategic decision makers and operational/project management function to ensure that the project is aligned with the strategic objectives, dynamic and effective project prioritization, dynamic balancing between risk and reward as well as reconfiguring or canceling the in-flight projects. However, previous studies have not covered whether having such capabilities will influence the organization, where in this case a financial institution such bank, mostly in perspective of technology and innovations (Kim & Bae, 2020a; Kim & Bae, 2020b).

Project Management Institute defines the portfolio as projects, programs, sub-portfolios, and operations managed as a group to achieve strategic objectives. Furthermore, project portfolio management (PPM) is defined as the centralized management of one or more portfolios to meet strategic objectives (Project Management Institute, 2017b). In their study, Blichtfeldt and Eskerod (2008) defined PPM as managerial activities which perform screening, selection, and prioritization of project proposals, the concurrent reprioritization of the project in the portfolio, and the allocation and reallocation of resources according to priority. Past studies have revealed (Killen et al., 2010; Killen et al., 2008b, 2008a, 2012; Killen, 2008) that the perspective of the resource-based view (RBV) and the dynamic capabilities are significant in providing the unifying theoretical perspective for project portfolio management capabilities and explaining its mechanism in which PPM contributes to competitive advantage. The Project Management Office (PMO) mainly performs the PPM role as has been explained by Project Management Institute (2013b, 2013c). This also has been growing within the history of project management offices and has been becoming popular since 1994 (Dai, 2001; Dai & Wells, 2004) apart from their start in the 1930s as has been observed by Singh et al. (2009).

The PMO has been applied in various industries such as telecom, aerospace, and defense for a long time as has been explained by Desouza and Evaristo (2006). PMO is seen also as a management structure that provides standards to the project-related governance process. It also facilitates the common utilization of resources, PM methodologies, tools, and techniques. Furthermore, they are also responsible for providing project management support and up to the level that they are responsible for the management of one or more projects directly (Project Management Institute, 2013a).

Hobbs and Aubry (2008) argued that PMO has also functions to monitor and control project performance, develop project management competencies and methodologies, manage multi projects and strategies, perform organization learning, execute specialized tasks, and manage customer interface as well as project management resources. However, from the previous study, there is no such finding whether having PMO in the organization, especially in banking industries, can bring benefit to banks as an organization.

Furthermore, firm performance is defined by Hult et al. (2004) as the achievement of an organizational goal related to profitability and growth in sales, market share, and accomplishment of general firm strategic objectives. Meanwhile, Tseng (2010) based on a consolidation of her study concluded that firm performance is an integral improvement in finance and performance such as sales and profits, market share, customer satisfaction, retention rates, organizational effectiveness and efficiency, integral improvement in human resources development and preparation for the future. Considering the factors from those studies. from the perspective of banks, some measures can be taken into consideration as indicators of bank performance such as Net Interest Margins (NIM), Capital Adequacy Ratio (CAR), Non-Performance Loan (NPL), Loan To Deposit Ratio (LDR), Operational Efficiency (OE), Return on Assets (ROA) and Return on Equity (ROE), which originated from concept of CAMEL (Capital, Assets quality, Management, Earnings and Liquidity) components (Nurazi & Evans, 2005).

# III. Materials and Method

This paper is based on empirical research using a positivist perspective as an underlying philosophy of this research that is often referred to as the research paradigm (Killen, 2008). The study used the list of banks from the Indonesian Financial Services Authority (Indonesia Financial Services Authority, 2018) and by the data collected the number was changed from 119 to 115 banks as a final number Infobank, due to merger and acquisition as well as business closure. The unit of analysis is Indonesian Bank as a company. The data is collected through a survey using structured questionnaires as data collection tools. The respondents were requested to respond to the questions using 1 to 6 Likert scale (1 = strongly disagree; 2 = disagree, 3 = tends to disagree, 4 = tends to agree, 5 = agree and 6 = strongly agree) based on the strategic initiatives that they have managed from the year 2013 until 2015. The proposed respondents shall represent each bank and come from either in Directors level or Vice Presidents or General Managers or Head of Department.

The firm performance of the banks from the year 2014 to 2016 is taken from secondary data from Infobank Magazine Special Issues of Infobank Magazine (Infobank, 2015, 2016, 2020). Using geometric mean the growth of bank performance indicators such as total Net Interest Margins (NIM), Capital Adequacy Ratio (CAR), Non-Performance Loan (NPL), Loan To Deposit Ratio (LDR), Operational Efficiency (OE), Return on Assets (ROA) and Return on Equity (ROE), which originated from the concept of CAMEL (Capital, Assets quality, Management, Earnings, and Liquidity) components were taken and calculated.

The data will be collected the data from all 115 banks using a convenience sampling technique in form of a survey from October 2016 to January 2017. The descriptive analysis is used as a part of a preliminary study using tools IBM SPSS 22 to explore how is the distribution of feedback from PPM capabilities, PMO practices, and bank performance compared from banks with and without formal PMO.

# IV. Discussion

After sending out questionnaires to 115 banks, they were 82 banks responded to them (71 % response rate), 50 of them (60,2 %) are foreign exchange banks, meanwhile, 22 of them (26,5 %) are non-foreign exchange banks, and 11 remaining banks (13.2 %) are others. Using IBM SPSS 22, the reliability test has given Cronbach Alpha 0,915 which indicates that the data is reliable. 49 banks (51 %) claimed that they have a formal PMO in place, while 34 banks (49 %) do not have one. According to Indonesian Federal Bank Regulation (Peraturan Bank Indonesia Tentang Kegiatan Usaha Dan Jaringan Kantor Berdasarkan Modal Inti Bank., 2012) No.14/26/PBI/2012, commercial banks can be categorized based on equity value. Starting with Category 4 are banks with an equity value of more than 30 trillion Rupiah, followed by Category 3 with an equity value between 5 to 30 trillion Rupiah, Category 2 with an equity value between 1 to 5 trillion Rupiah, and Category 1 with equity value less than 1 Trillion Rupiah. According to the equity value category of the banks, there are 11 banks in Category 1 (13.4 %), 40 banks in Category 2 (48.7 %), 16 Category 3 banks (19.5 %), and 7 Category 4 banks (8.5 %) and 8 foreign banks (9.7 %) as has been shown in Table 1 below.

From the respondent's position, it is found that 14 of 82 respondents (16.9 %) are C-Suites, 29 respondents (34.9 %) are Vice Presidents or similar, 27 respondents (32.5 %) are General Managers or Head, or similar and 13 remaining respondents have other positions. That gives the responses are thought well from the perspective of Senior Management positions in the banks.

Meanwhile, the type of strategic initiatives is shown in Figure 1 below:

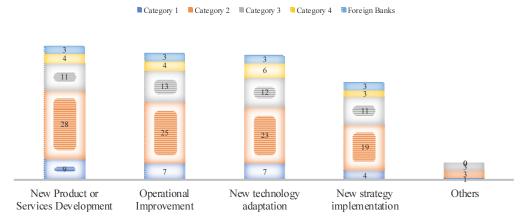
The data presented in Figure 1 indicates that the majority of strategic initiatives are New Product Development, followed by Operational Improvement and New Technology Adaptation. The result shows that Category 2 banks, as major respondents to this study tend to be more competitive in the market

by establishing relatively more new products compared to the other banks, as shown in Table 1. From the perspective of PMO practices, Table 2 shows that banks with formal PMOs lean towards giving higher scores compared to banks without formal PMOs. It indicates that PMO practices are better applied in banks with formal PMOs.

Meanwhile, in PPM capabilities shown in Table 3, it provides the information that the feedbacks from respondents are relatively higher from banks with formal PMO compared with those which do not have formal PMO. It is to be understood that PPM capabilities are better managed in banks with formal PMOs in the organization.

Table 1. Distribution of respondents from CATEGORY type banks

No	Bank Type	Number of Banks	Total Banks in each Category	Percentage of respondents from the total Category
1	Category 1	11	26	42.31%
2	Category 2	40	55	72.73%
3	Category 3	16	18	88.89%
4	Category 4	7	7	100.00%
5	Foreign Bank	8	9	88.89%
Total Banks		82	115	



(Notes: Respondents may provide feedback of more than one type)

Figure 1. Type of Strategic Initiatives n=82

Table 2. PMO practices comparison banks with and without formal PMO

PMO Practices	Banks with PMO		Banks without PMO	
PIMO Fractices	Mean	Median	Mean	Median
PM_Standard_Method	4.8029	5.0000	4.0682	4.0000
Project_Historical_Data	4.3945	5.0000	3.9706	4.1650
Administrative_Project_Support	3.9931	4.0000	3.3432	3.3300
Project_Resources_Support	4.3941	5.0000	3.7350	4.0000
PM_Training	4.1224	4.3300	3.5000	3.5000
PM_Coaching_and Mentoring	4.3945	4.3300	3.7162	3.8350

Furthermore, from secondary data from Infobank in the period of 2014-2016 related to bank performance as shown in Table 4, it is to be understood that the numbers represent the growth of each performance indicator, as has been calculated using geometric mean. The bank's performance indicator's growth such as ROA, ROE, Margin, LDR, third party fund, BOPO, and NIM seem to be better in banks with formal PMOs compared to those without a formal PMO.

However, the bank's performance indicators such as Total Asset, Capital, CAR, NPL, and Credit seem to be better in banks without a formal PMO presence. This anomaly condition can be seen in Table 5 as PMO practices are still performed by some people in the organization despite any formal PMO presence.

Thus, it can be understood that indicators that are blended impact from operational and strategic initiatives activities (projects) represent the Firm Performance of the banks.

**Table 5.** PMO practices in banks without formal PMO presence

How do you describe your PMO practices in your organization	Count of Description
Nobody does any PMO functions or services; however, there are plans to develop such a capability in the organization.	1
Nobody does any PMO functions or services, and there are no plans to develop such a capability in the organization	9
Others	3
Some people perform PMO functions and services as a full-time job responsibility, but there is no such office or comparable entity in the organization yet	2
Some people perform PMO functions and services as part of their job description, but there is no such office or comparable entity in the organization yet.	18
Grand Total	33

Table 3. Project portfolio management capabilities comparison banks with and without formal PMO

PPM Capabilities	Banks w	Banks with PMO		Banks without PMO	
rrivi Capaolitties	Mean	Median	Mean	Median	
PPM Business Objectives	4.8214	5.0000	4.5515	4.7500	
PPM Prioritization	4.7778	5.0000	4.5432	4.9700	
PPM Balance and Reward Risks	4.7051	5.0000	4.6132	4.9800	
PPM Cancel and Reconfigure	4.3549	4.3200	4.2868	4.3150	

Table 4. Growth of bank performance in % from 2014 - 2016 (Infobank 2015; 2016; 2017)

No	Firm Performance of Banks (Growth)	Banks with formal PMO		Banks without formal PMO		
		Mean (Growth in %)	Median (Growth in %)	Mean (Growth in %)	Median (Growth in %)	
1	Total Asset	18.3986	9.6600	23.1497	14.1500	
2	Capital	23.9992	17.4200	30.8070	22.1800	
3	CAR	21.7267	18.5600	29.2052	22.3200	
4	NPL	3.1753	2.8400	2.7297	2.2500	
5	Credit	17.2188	6.9900	25.5464	11.8300	
6	ROA	1.4949	1.3800	.9397	1.5200	
7	ROE	8.2708	7.6000	4.7315	7.4400	
8	Margin	401.4347	12.4700	47.4291	25.7400	
9	LDR	106.3345	90.5400	104.3076	91.7000	
10	Third-party fund	24.0665	8.3400	23.9136	15.6200	
11	BOPO	86.4567	87.4400	91.4827	88.8000	
12	NIM	5.7688	4.8900	5.3373	4.6900	

# V. Conclusions, Limitation and Future Research

From this descriptive analysis, in the early stage of this study, a preliminary pattern can be seen that the banks with formal PMO tend to be having better, PMO practices, and Project Portfolio Management (PPM) Capabilities, but not the Firm Performance banks. Having this result, PMO tends to bring positive influence based on the analysis and comparison results (Dai and Wells, 2004; Aubry et al., 2009; Stewart, 2010; Neaverth, 2015). This can be considered as an early indication of guidance that applying PMO and PPM will bring value to the organization, hence it is recommended to start nurturing PMO practices in banks, which do not have a formal PMO by establishing one. Nevertheless, this study is not analyzing how the PMO practices and PPM Capabilities are correlating with the bank's performance.

This study has limitations as it has been done sometimes in the past. The other constraint is also based on the availability of the current updated data, where secondary data referred to in the special report from Infobank Magazine is no longer available.

The next study needs to be conducted to see how those factors are influencing the bank's performance. Aside from it, the next research can be conducted with the extended context of financial services such as insurance, multi-finance, securities, and pension funds. Furthermore, additional more updated and relevant constructs/variables can be added to the model in the next future research.

### References

- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99-120. doi:10. 1177/014920639101700108
- Blichfeldt, B. S., & Eskerod, P. (2008). Project portfolio management - There's more to it than what management enacts. *International Journal of Project Management*,

- 26(4), 357-365. doi:10.1016/j.ijproman.2007.06.004
- Boppel, M. (2013). Strategic Initiative Portfolios: Theory and Empirical Evidence (Issue 4208). St. Gallen School of Management, Economics, Law, Social Sciences and International Affairs.
- Buana , Y., Mursitama, T. N., Abdinagoro, S.B., Pradipto, Y. D. (2022). Managing Sustainability of Energy Transition among Expert Engineers: Co-creating Technopreneurial Orientation. *Global Business & Finance Review*, 27(6), 27-39. doi:10.17549/gbfr.2022.27.6.27
- DAI, X. (2001). The role of the project management office in achieving project success. 2001 (Doctoral dissertation). Tese (Doutorado)-The George Washington University, Washington DC.
- Dai, C. X., & Wells, W. G. (2004). An exploration of project management office features and their relationship to project performance. *International Journal of Project Management*, 22(7), 523-532. doi:10.1016/j.ijproman.2004.04.001
- Desouza, K. C., & Evaristo, J. R. (2006). Project management offices: A case of knowledge-based archetypes. *International Journal of Information Management*, 26(5), 414-423. doi:10.1016/j.ijinfomgt.2006.07.002
- Dietrich, P., & Lehtonen, P. (2005). Successful management of strategic intentions through multiple projects - Reflections from empirical study. *International Journal of Project Management*, 23(5 SPEC. ISS.), 386-391. doi:10.1016/j.ij proman.2005.03.002
- Eisenhardt, K. K. M., & Martin, J. J. A. (2000). Dynamic capabilities: what are they? *Strategic Management Journal*, 21(10-11), 1105-1121. doi:10.1002/1097-0266(200010/1 1)21:10/11<1105::AID-SMJ133>3.0.CO;2-E
- Hamel, G. (1996). Strategy as revolution (pp. 69-82). Nova York: Harvard Business Review.
- Hamsal, M., Abdinagoro, S.,B., Zulkarnain, A., Lenandri, D., G. & Ichsan, M. (2021). The impact of Organizational Resilience on Hotel Performance During Pandemic COVID-19. *Global Business & Finance Review*, 27(1), 1-15. doi:10.17549/gbfr.2022.27.1.1
- Hobbs, B., & Aubry, M. (2008). An Empirically Grounded Search for Typology of Project Management Offices. *Project Management Journal*, 39(Supplement), S69-S82. doi:10.1002/pmj
- Hult, G. T. M., Hurley, R. F., & Knight, G. A. (2004). Innovativeness: Its antecedents and impact on business performance. *Industrial Marketing Management*, 33(5), 429-438. doi:10.1016/j.indmarman.2003.08.015
- Indonesia Financial Services Authority. (2015). *Indonesian Financial Services Sector Master Plan 2015-2019*.
- Indonesia Financial Services Authority. (2018). *Indonesia Banking Directory 2018: Commercial Bank*.
- Infobank. (2015). Bank Performance 2015. Infobank.
- Infobank. (2016). Bank Performance 2016. Infobank.
- Infobank. (2020). Bank Performance 2017. Infobank.
- Kaiser, M. G., El Arbi, F., & Ahlemann, F. (2015). Successful project portfolio management beyond project selection

- techniques: Understanding the role of structural alignment. *International Journal of Project Management, 33*(1), 126-139. doi:10.1016/j.ijproman.2014.03.002
- Killen, C. P., Krumbeck, B., & Kjaer, C. (2010). Visualising project interdependencies for enhanced project portfolio decision-making. In *International Project Management* Association Congress. Australian Institute Project Management (AIPM).
- Killen, C. P., & Hunt, R. A. (2010). Dynamic capability through project management in service and manufacturing industries. *International Journal of Managing Projects in Business*, 3(1), 157-169. doi:10.1017/CBO9781107415324.004
- Killen, C. P., Hunt, R. A., & Kleinschmidt, E. J. (2008a). Learning investments and organizational capabilities: Case studies on the development of project portfolio management capabilities. *International Journal of Managing Projects* in Business, 1(3), 334-351. doi:10.1108/17538370810883800
- Killen, C. P., Hunt, R. A., & Kleinschmidt, E. J. (2008b). Project portfolio management for product innovation. International Journal of Quality & Reliability Management, 25(1), 24-38. doi:10.1108/02656710810843559
- Killen, C. P., Jugdev, K., Drouin, N., & Petit, Y. (2012). Advancing project and portfolio management research: Applying strategic management theories. *International Journal of Project Management*, 30(5), 525-538. doi:10.1016/j.ijproman.2011.12.004
- Killen, C. P. (2009). Project portfolio management for product innovation in service and manufacturing industries. Macquarie University.
- Kim, D., & Bae, J. K. (2020a). The Effects of Protection Motivation and Perceived Innovation Characteristics on Innovation Resistance and Innovation Acceptance in Internet Primary Bank Services. Global Business & Finance Review, 25(1), 1-12. doi:10.17549/gbfr.2020.25.1.1
- Kim, D., & Bae, J.K. (2020b). Understanding Internet-Only Bank Service Adoption: An Integration of the Unified Technology Theory of Acceptance and Innovation Resistance Model. *Global Business & Finance Review*, 25(3), 49-59. doi:10.17549/gbfr.2020.25.3.49
- Martinsuo, M. (2013). Project portfolio management in practice and in context. *International Journal of Project Management*, 31(6), 794-803. doi:10.1016/j.ijproman.2012.10.013
- Martinsuo, M., & Lehtonen, P. (2007). Role of single-project management in achieving portfolio management efficiency. *International Journal of Project Management*, 25(1), 56-65. doi:10.1016/j.ijproman.2006.04.002
- Nurazi, R., & Evans, M. (2005). An Indonesian Study of the Use of CAMEL(S) Ratios as Predictors of. *Journal* of Economic and Social Policy, 10(1), 1-23.
- Bank Indonesia. (2012). Peraturan Bank Indonesia Tentang Kegiatan Usaha Dan Jaringan Kantor Berdasarkan Modal Inti Bank., PBI No 12 58. http://www.bi.go.id/id/peraturan/ moneter/Documents/pbi\_151513.PDF

- Porter, M. E. (1985). Competitive Advantage: Creating and sustaining superior performance. Free Press.
- Porter, M. E. (1991). Towards a Dynamic Theory of Strategy. Strategic Management Journal Fundamental Research Iss ues in Strategy and Economics, 12, 95-117. doi:10.1002/sm j.4250121008
- Pricewaterhouse Coopers. (2018). 2018 Indonesia Banking Survey: Technology shift in Indonesia is underway (Issue February).
- Project Management Institute. (2013a). A Guide to Project Management Body of Knowledge (5th ed.). Project Management Institute, Inc.
- Project Management Institute. (2013b). *PMO Frameworks*. PMI Pulse of Profession.
- Project Management Institute. (2013c). Pulse of the ProfessionTM in-Depth Report: Portfolio Management. http://www.pmi.org/~/media/PDF/Research/PMI-Portfolio-Management.ashx
- Project Management Institute. (2017a). A Guide to Project Management Body of Knowledge (6th ed.). Project Management Institute, Inc.
- Project Management Institute. (2017b). Standard For Portfolio Management Project Management Institute (4th ed.). Project Management Institute, Inc.
- Singh, R., Keil, M., & Kasi, V. (2009). Identifying and overcoming the challenges of implementing a project management office. *European Journal of Information* Systems, 18(5), 409-427. doi:10.1057/ejis.2009.29
- Smith, E. E. (2011). Perceptions Regarding Strategy Implementation Tasks in Selected Industries: A South African Perspective. *International Journal of Business and Commerce*, 1(4), 22-45.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic Capabilities and Strategic Management. Strategic Management Journal, 18(7), 509-533.
- Teece, D., & Pisano, G. (1994). The dynamic capabilities of firms: An introduction. *Industrial and Corporate Change*, 3(3), 537-556. doi:10.1093/icc/3.3.537-a
- The Economist Intelligence Unit. (2013). Why good strategies fail: Lessons for the C-suite. In *The Economist*. http://www.pmi.org/Knowledge-Center/PMO-Thought-Leadership.a spx
- Tseng, S.-M. (2010). The correlation between organizational culture and knowledge conversion on corporate performance. *Journal of Knowledge Management, 14*(2), 269-284. doi:10.1108/13673271011032409
- Wong, C. Y., Boon-Itt, S., & Wong, C. W. Y. (2011). The contingency effects of environmental uncertainty on the relationship between supply chain integration and operational performance. *Journal of Operations Management*, 29(6), 604-615.