

The Art and Science in Strategic Approach to Enhance Innovativeness and Performance in Financing Industry

Heru Santosa Hadiyanto
Senior Lecturer, Binus Business School
Bina Nusantara University
Jakarta, Indonesia
hadiyanto.heru@yahoo.com

Abstract

The importance of innovativeness is one of the most discussed topics in several studies. But there is still inconsistencies about the effect from innovativeness to performance. Especially in the dynamic environment and under-performance condition like financing industry in Indonesia, which has declined in growth from the past decade. This research seeks to analyze the most influential factors on performance and innovativeness in terms of the variable strategic approach and variable ways of gathering information at the manager level in the finance industry. Study literature will be use to build some hypothesis at first stage, then quantitative research method will be implement at second stage for hypothesis testing. Sample technique that use in this research is two stage stratified random sampling. Data collection by questionnaire from 242 managers in financial industry will be analyzing with Partial Least Square. After finalize data analysis, the result showed that the effect of innovativeness on manager performance was not significant. The novelty in this research is the explanation why the managers in financing industry are difficult relatively to enhance their innovativeness. The results expected can be used as recommendations for enhancing innovativeness and manager's performance, especially for the performance improvement in the financing industry.

Keywords

performance, innovativeness, strategic approach, strategic art, strategic science, way of gathering information

1. Introduction

In the last decade, the finance industry in Indonesia has been growth decadence. At the beginning of the decade, account receivables grew by 23%, but at the end of the decade currently decreased to be 2% only (OJK, 2019). It followed by a decline in profit growth. At the beginning of the decade, profit was grown 33%. But at the end of the decade, profit growth decreased to be 10% only (OJK, 2019). This condition reflects a decrease in the productivity of employee performance in the financing industry. It is confirmed by the decline in the profit per employee cost. At the beginning of the decade was 1.17, now has decreased to 0.87 at the end of the decade (OJK, 2019). This data interprets that at the beginning of the decade, every currency of employee cost can generate a profit of 1.17 times. But at the end of this decade, every employee cost can generate a profit of 0.87 times only.

This decline in employee productivity in the finance industry is quite in line with the decadence at the industrial level. If this condition compared to the progress of the financial technology industry continues to grow with many start-up companies with a variety of digitalization technology innovations, it feared to erode the performance of the financing industry. Various theories and research on declining performance in volatile environments had widely published. Many studies believe and confirm that innovativeness or innovation ability is closely related to superior performance because this is the best way to achieve competitive advantage and redesign competitive advantage (Celtekliligil & Adiguzel, 2019). Other studies confirm that innovativeness will influence business performance (Hult, Hurley, Knight 2004). It supported by another research, which explains that innovativeness has a positive effect on performance (Burns and Stalker 1961; Hurley and Hult 1998; Porter 1990); or to create competitive advantage (Ismail & Alam, 2019). Even the majority agreed that innovativeness contributes to business performance, but there is a lack of research about the drivers of innovativeness and how these drivers operate through innovativeness to influence performance (Hoq & Chowdhury, 2012).

The innovativeness can be more optimal if there is the right strategic direction. The fit strategic orientation will guide its innovation activities to achieve superior and sustainable performance (Gatignon and Xuereb, 1997). Several studies have revealed that the right strategy will affect innovation capability (Cingoz & Akdogan, 2013; Striteska & Prokop, 2020). In this research, the strategic approach defined as how a manager can identify the opportunities and solve problems in their working unit's environment. Other studies have even revealed that a strategic approach can also affect performance achievement (Hamsal & Agung, 2007). Parnell (2005) states that there are two strategic orientation, namely strategic art and strategic science. Another research state that the strategic orientation is determined by how a manager's personality traits, which is on the process data and information they receive to make decisions (Gallén, 2010; Ghodrati et al., 2014). The way of gathering information here is one of the personality traits that will affect his/her strategic approach.

Theoretically, from one study to another still contains some controversy and inconsistencies. Several research state that there is a significant effect of innovativeness on performance. For example Ali, Kan, and Sarstedt (2016) state that absorption capacity and innovation will enhance company performance in South Korea, then Oura et al. (2016) state that innovativeness (capacity for innovation) effect to company performance in Brazil. But it contradicts with Lofsten (2014), who state that innovative firms do not necessarily create high returns. Then Prifti & Alimehmeti (2017) confirm that there is no significant effect of innovativeness on performance, and Canh (2019) state that innovation could create company more obscure.

Relationship between the strategic approach and innovativeness still contains some inconsistency too. For example, Cingoz & Akdogan (2013) states that a more flexible strategic orientation create a positive relation and significant contribution to exploratory innovation and exploitative innovation. But this study contradicts the research of Dhliwayo (2011). He states that strategic orientation and innovativeness (which are one of the dimensions of entrepreneurial orientation) are significantly negatively correlated. Meanwhile, several studies confirm the relationship between the ways of gathering information and the strategic approach. Gallén (2010) reveals that the specifics ways of gathering information will tend to apply a different strategic approach too. However, this argument contradicts Conti & McNeil (2011). They revealed that personality traits are not predictors for identifying strategic preference.

1.1 Objectives

According to the background and research inconsistencies above, it is necessary to examine the relationship between variables to solve the performance and innovativeness issue in the Indonesian' financing industry. The research aims to identify what factors caused this based on a hypothesis based on a conceptual framework. The theoretical support and conceptual relation will explore in the literature review below.

2. Literature Review

Based on the framework described above, the research model can draw into Figure 1 below. The definition of each variable that will use in this research will be exploring one by one.

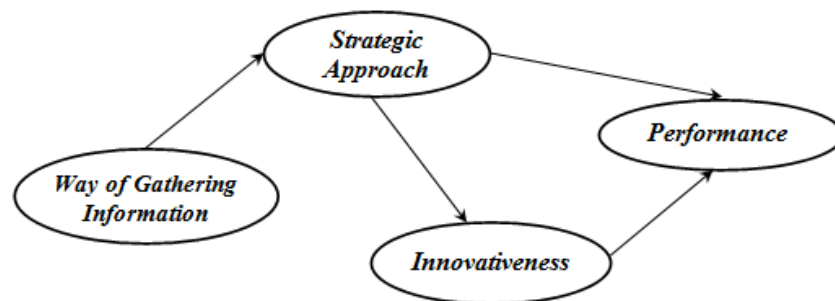


Figure 1. Research Model

2.1 Performance

Performance can be explained as the comparison between outcomes produce from a working process with the target expected. In this research, manager performance reflects on their key performance indicators. Key performance

indicators are the financial and non-financial indicators used to measure success criteria relative to the target expected (Velimirovic, Milan, Rade, 2011). Financial indicators often called as lag indicators. Financial indicator reflect the final result and historical performance, like profitability achievement, account receivable, return on investment (ROI), return on equity (ROE), return on asset (ROA), etc. Non financial indicators often called as leading indicators. Leading indicators here will be effect to lag indicators in the future, like customer acquisition, customer satisfaction, service level agreement (SLA), human resources development activities (recruitment, training, retention, ec), information technology, etc. Generally, key performance indicators adopt from balance scorecard concept, which is there are four perspective: financial perspective, customer perspective, internal business process perspective, learning and growth perspective. Financial perspective is the lag indicator. And non financial perspective like customer perspective, internal business process perspective, learning and growth perspective are the leading indicators.

Key performance indicator reflects and assesses the current business progress and use it as a guideline to show things to do (Parmenter, 2007). At an individual level, key performance indicators must be in line with a work unit target. These key performance indicators at the work unit must be cascading from the organization-wide level. In this research, performance reflects a success rating from a manager during two years performance appraisal.

In financing industry, financial perspective like profitability often cascaded down from Board of Directors (BOD) into profit center's and work unit subordinate like division, business unit, or branch office. Customer perspective often set in form annual sales amount, customer acquisition, and marketing target. Internal business process often set in form credit analyst indicator like first installment default (FID), collection performance indicators like non performing loan and recovery rate, service level agreement (SLA), etc. Learning and growth perspective often set in form good corporate governance (GCG) indicator like audit rating and compliance rating, information technology project and implementation, human resources development effectiveness like productivity and talent readiness, etc. These main indicators combine to be ey performance indicator level by level and position by position. This result of annual performance indicators will be link to annual reward in next years.

2.2 Innovativeness

Innovativeness is defining as the ability and willingness to strive for creativity, new ideas, and experiments that can produce something new (Lumpkin & Dess, 1996 in Mahmood & Hanafi, 2013; Yu, 2012). Other studies describe innovativeness as a tendency to seek new solutions and opportunities (Aarakit, 2010). Innovativeness is the ability to innovate and create new combinations of existing resources to increase operational activities or provide new products base on consumer requirements (Pearce, Kramer, Robbins, 1997). Other research suggests that innovativeness reflects the ability to generate new ideas and combine them with existing elements to produce new value creation (Stalk et al., 1992; Rodgers, 1993; Hurley and Hult, 1998). According to several researchers above, innovativeness is the ability to innovate, which can be defining as the personal ability in the form of creativity, ideas, and experiments. So they can produce new products or develop operational activities.

Innovativeness is the ability to innovate, which reflects in three indicators. The first indicator is "creativity". Creativity defining as the ability to generate creative ideas, a willingness to discover new processes or techniques, looking for new ways, and think in unusual ways (Aarakit, 2010; Wang, 2008). Another indicator is about "delivery of new ideas", which is the abilities to conveying new ideas with comfortable feeling to other colleagues (Aarakit, 2010). Meanwhile, another research translates as "experiment to implement new ideas" in the form of statements trying new ways on working process, looking for unusual solutions, or preparing plans to implement new ideas (Aarakit, 2010; Wang, 2008). So, the employees' ability to innovate in the financing industry showed with these indicators too. These reflected by a person who often comes up with different ideas and can give a breakthrough.

There are several studies between innovativeness and performance. Many researchers confirm that innovativeness has a positive and significant effect on performance (Burns and Stalker 1961; Hurley and Hult 1998; Porter 1990). But other studies confirm that innovativeness does not have a significant effect on performance (Prifti & Alimehmeti, 2017). If the results of their research between innovativeness and performance are synthesized, there are two hypotheses can be generated:

H1a: innovativeness affect positive and significant on performance

H1b: innovativeness affect positive but not significant on performance

2.3 Strategic Approach: Art and Science

According to their research, Henry (2011) describes the strategic approach here as strategic analysis. This concept defines as the first step in the strategic management process, which emphasizes how the executive level interprets the environmental change to formulate and implement the strategy. Another researcher, De Wit & Meyer (2010) using the term strategic thinking to describe the concept of a strategic approach. They explain how executive thinks strategically, in case more emphasis on creativity o logical orientation. Parnell (2005) explains the strategic approach as strategy phenomena and already become one of the main principles in strategy formulation. Then on their research, Parnell & Lester (2006) divides strategic approach into two orientation, namely the artist and the scientist.

The strategic sciences perspective emphasizes logical and rational reasons to interpret the situations (De Wit & Meyer, 2010). It tends to minimize or reject the function of imagination and creativity. This approach focuses on analyzing, forecast, and predict to explore how the environment changes (Parnell & Lester, 2003). At the application, scientists depend on data gathering, data intelligence, and connecting the data to find a pattern, trend, or cycle. In other words, they use historical data to forecast the future. They start from data to get information and propose their strategy with deductive thinking. Without supporting data, the strategic scientists argue that their strategic plan will be creating a doubtful and debatable situation. Otherwise, logical reason, supporting data, and systematical thinking will deliver more convincing others to understand and implement the strategic plan. Strategic scientists require strong database management and analytical thinking to propose a strategic plan. So scientists must be equipped with advanced analytical skills to processes big data objectively (Parnell & Lester, 2006).

Conversely, strategic art emphasizes creativity and imagination. The strategic artist often uses generative reasoning and broader thinking as a fundamental approach (De Wit & Meyer, 2010). They use lateral thinking to explore new perspectives to get a new idea, which may ignore by logical thinking. Contrary to strategic science, this approach starts from the big ideas and more using inductive thinking. This approach does not begin with data because the artist convinces that the external environment is unpredictable, constantly changing, and can not be forecast by past historical data (Parnell & Lester, 2003). Besides this, strategic artists sure that great strategy offer comes from intuition (Ford & Gioia,2000; Parnell, 2005). Base on this characteristic, the strategic artist sure that the strategy formulation process can not be taught to others and duplicate from others (Parnell, 2005). The different conditions require a different strategy.

If the literature review about the strategic approach here links with several previous studies, the strategic approach effect innovativeness (Gatignon and Xuereb, 1997; Cingoz & Akdogan, 2013; Striteska & Prokop, 2020). Moreover, other studies revealed that the strategic approach influence performance (Hamsal & Agung, 2007). Based on the relationship between the variables here, it can create six hypotheses :

H2: strategic approach effect positive and significant to innovativeness

H2a: strategic art effect positive and significant to innovativeness

H2b: strategic science effect negative and significant to innovativeness

H3: strategic approach effect positive and significant to performance

H3a: strategic art effect positive and significant to performance

H3b: strategic science effect negative and significant to performance

2.4 Way of Gathering Information: Intuitive and Sensing

The way of gathering information is one of the personality traits attributes. It reflected how people tend to manage data, message, and perception (Lawrence, Sebastianelli, Kepler, 2000; Borg & Shapiro, 1996; Johnston et al., 2009). The way of gathering information reflects their way of thinking, which is how manager interprets the message through quantitative data, qualitative reports, and explanations from others. In personality theory, this variable has two natural orientations: sensing and intuition (Keirsej & Bates, 1998; Borg & Shapiro, 1996).

Sensing oriented explained as a person who tends to systematic steps (Robbins & Judge, 2008). Base on this orientation, they prefer to manage data and information through a sequential process with a clear route. This orientation reflects in their behaviour. In this case, their preference to get the info by fact-finding with supporting data about the current situation. With this character, they are talented in technical skill and detail-oriented, which they create better improvement base on current problems using proven methods (Johnston et al., 2009; Buaton & Astuti, 2013).

Otherwise, intuition oriented start from the big picture, using helicopter views to see the situation and rely on unconscious processes (Robbins & Judge, 2008). In other words, a person with intuition oriented emphasizes the causal relationship between one and other things, like a holistic system. An intuitive person was talented to seek new perspective and different way to solve the problem. In this way of thinking, they emphasize how current progress will affect the future (Johnston et al., 2009; Wandrial, 2014). They speak with “head in the cloud” language, often imaginative and future-oriented.

If the literature review about the way of gathering information here linked with several previous studies, it is known that specific characteristics affect to strategic approach (Gallen, 2010). Base on some similarities and continuity between the two concepts here, it can be summarized (Table 1) and formulate in the following hypotheses:

H4: the way of gathering information will effect positive and significant to the strategic approach

H4a: intuition managers will tend to be a strategic artist

H4b: sensing managers will tend to be a strategic scientist

Table 1. Alignment Between The Way of Thinking and Strategic Approach

Way of Thinking	Sensing	Intuitive
Fact vs. probability	Start with past historical data to solve current problem	Start with current progress will effect the future condition
Down to earth vs. head in the cloud	They speak with “down to earth” language	They speak with “head in the cloud” language
Sequent vs. causal	Tend to systematic and sequential process with clearly route	Emphasize on causal relation and comprehensive
Detail vs. holistic	Accuration oriented	Comprehensive oriented
Content vs. context	Technical and detail	Big picture and helicopter view
Strategic Approach	Strategic Science	Strategic Art

3. Methods

The research method used in this research is quantitative with a hypotheses-test. Data collected with a questionnaire technique. The variables used operationalized within the questionnaire with the Likert scale. The questions in a questionnaire were adapted from the literature that relevant to this research. The research type here is cross-sectional. The unit analysis is at an individual level, which is the managers in financing company in Indonesia. The stratified random sampling technique used in this research.

From the questionnaire, managers with high performance reflected on a higher-Likert scale. Managers with high innovativeness reflect on the higher-Likert scale too. Then, managers with more oriented to the strategic artist than strategic scientist reflected on a higher-Likert rating. And managers who emphasize intuitive than sensing’s way of thinking reflected on a higher-Likert rating too. However, the strategic approach like art and science, plus the way of thinking orientation like intuitive and sense here are neutral conceptually. Nothing is better than one another. The use on the low and high scale in this research is only used as code to support statistical tools and hypothesis testing.

4. Data Collection

Based on the collected questionnaires from 242 managers in the Indonesian’s financing industry, this data distribution and result can summarize into descriptive statistics below (Tabel 2). Table 2 showing the average scale by variable and indicators from the respondent, which this respondent here grouping the managers into two office type: headquarter office and branch office.

Table 2. Descriptive Statistics (Average Scale)

Variable	Average Likert Scale by Office		
	Branch Office	Headquarter	Overall
Performance (PERF)	3,40	3,56	3,44
Innovativeness (INN)	4,38	4,29	4,36
Strategic Approach (APPR)	4,00	3,68	3,92
Way of Gathering Information (WGI)	3,72	3,71	3,72
Total Responden	187	55	242

Before testing the hypothesis, the validity and reliability tests will be running from the 13 indicators used in this research. The indicator is valid if the loading factor, AVE and communalities values are higher than 0.5. Meanwhile, the variable's indicator is reliable if the Cronbach Alpha and Composite Reliability values are more than 0.50. Based on the results of statistical tests, the loading factor value of each indicator in the innovativeness variable (0.795-0.866), the strategic approach variable (0.765-0.878), and the way of gathering information (0.640-0.868) variables are all greater than 0.5. Likewise, the values of AVE, Communalities, Cronbach Alpha, and Composite Reliability show that the indicators used to measure the variables here are considered valid and reliable (Table 3).

Tabel 3. Validity and Reliability Test

Indicator	Benchmark	PERF	INN	APPR	WGI
AVE	0.50	1.00	0.70	0.68	0.60
Communalities	0.50	1.00	0.70	0.68	0.60
Composite Reliability	0.50	1.00	0.88	0.89	0.88
Cronbach Alpha	0.50	1.00	0.79	0.84	0.84

If the statistical test results (Table 4) are related to hypotheses, there are several interpretations. Hypothesis test results are significant if the T-Statistics value is greater than 1.65 (90% confidence level). At first hypothesis testing, innovativeness (INN) has a positive relationship to manager performance. But it does not have a significant effect on manager performance (PERF). So with this statistical result, H1a is rejected. Thus manager who has good innovation ability does not have a significant effect on performance. With this statistical result, H1b is accepted. Then strategic approach (APP) has a positive and significant relationship to innovativeness (INN). So H2 is accepted. Thus a manager who has strategic art has a significant effect on his ability to innovate in his work. So H2a is accepted. Otherwise, managers emphasis on strategic science orientation will have a negative relationship and significant effect on innovativeness. With this statistical result, H2b is accepted.

At the next hypothesis, the strategic approach (APP) has a positive and significant relationship to manager performance (PERF). So H3 is accepted. Thus a manager who has more creative thinking and more emphasis on strategic art has a positive and significant effect on his performance. So H3a is accepted. Otherwise, managers who more emphasize strategic science has a negative and significant effect on manager performance. So H3b is accepted. The manager's way of gathering information (WGI) has a positive and significant relationship to innovativeness (INN). So H4 is accepted. Thus a manager who has more intuitive-oriented thinking will have a significant effect on his ability to innovate in his work. With a positive relationship, it can be interpreted that managers who more intuitive will be more likely to use strategic art's approach which emphasizes creativity and imagination. So H4a is accepted. Otherwise, managers with sensing oriented will tend to use strategic science's approach. So H4b is accepted.

Table 4. Result Data and Intepretation

Variable	Regression Original Sample (O)	T Statistics (O/STEER)	Intrepretation
INN -> PERF	0.13	1.19	H1a rejected, H1b accepted
APPR -> INN	0.54	6.51	H2, H2a, H2b accepted
APPR -> PERF	0.30	3.22	H3, H3a, H3b accepted
WGI -> APPR	0.51	8.17	H4, H4a, H4b accepted

5. Results and Discussion

Based on the hypothesis test above, there is several conclusions and recommendations. At the first hypothesis, innovativeness has a positive relation but insignificant effect on manager performance (H1a is rejected, H1b is accepted). Then strategic approach has a positive and significant effect on innovativeness (H2 is accepted). From this relationship, it can be interpreted that the strategic art approach has a positive and significant relationship to innovativeness (H2a is accepted). Conversely, the strategic science approach has a negative and significant effect on innovativeness (H2b is accepted). Then the strategic approach variable has a positive and significant relationship to manager performance (H3 is accepted). From hypothesis testing, it can be interpreted that the strategic art approach has a positive and significant relationship to managerial performance (H3a is accepted). Conversely, the strategic science approach has a negative and significant relationship to performance (H3b is accepted). Then the manager's way of gathering information also has a positive and significant effect on the strategic approach (H4 is accepted). Based on this, intuitive managers tend to be a strategic artist (H4a is accepted). And sensing managers tend to be strategic scientist (H4a is accepted).

As a theoretical implication, this research from the Indonesian's financing industry research is in line with previous researchers like Prifti & Alimehmeti (2017). They confirm innovativeness does not have a significant effect on performance. Then from the results of the research hypothesis test here, it is known that although the relationship between innovativeness and performance is not significant, the strategic art approach has a significant effect on performance. It can happen because a creative and out of the box strategic approach like short-term problem solving will contribute to a manager annual performance appraisal, especially for executive managers in branch offices who are more required to achieve short-term targets. Based on the hypothesis here, it is also evident that there is an alignment between the way of thinking and the tendency of managers to apply specific strategic approaches. The results of this study are relatively in line with Gallen (2010) research which states that there is a relationship between way of thinking and manager tendency to adopt a specific strategic approach. In this research, managers who have an intuitive orientation will be more likely to be a strategic art. So they can support his/her innovativeness. Meanwhile, managers who have a sensing orientation are more likely to be strategic scientist, which they are more systematic and detailed in data analysis.

The results here also have two managerial implications. This research state that the lack of innovativeness in the finance industry caused by there is no positive and significant impact on manager performance appraisals. In different language, high innovativeness managers aren't in line with their performance. It is as if the financing industry's managers do not design to contribute innovation to achieve short-term performance targets. From the results of the descriptive analysis, managers in the headquarter who have technostructure function and should be able to act as think-tanks in innovation have lower strategic art than executive managers in the branch office. Lower strategic arts represent a lack of creativity and imagination, which supports innovativeness. Therefore, headquarter managers in the financing industry must be more directed to think creatively and intuitively. In the end, they can improve their innovation abilities to get better innovation result. It is very crucial because managers often rely on strategic science and sense orientation. With the way of thinking, they have strong analytical thinking to risk mitigation first. Ultimately financing industry's managers are more accustomed to risk analytics than seeking new opportunities (opportunity seeking).

For the second managerial implication, descriptive statistics about the executive manager at the branch office show that these managers have creativity which can affect performance. But this creativity has only used to create quick wins. They prefer to produce a short-term solution to create a direct impact. With these quick wins solution, it will be a direct impact on annual performance appraisals. So they do not prefer to make more fundamental breakthroughs. Better collaboration required between headquarter's manager and branch manager to make better

innovativeness. In this case, the feedback from the field by the branch manager should be considered by headquarter's manager to produce a breakthrough and innovations.

According to this research, enhancing the innovativeness to improve performance can be started by the annual performance alignment method. Alignment in the performance appraisal method with the right indicators can trigger the emergence of innovativeness. It is very crucial as a catalyst or trigger to create more innovative managers rather than pragmatic managers. Training about creative thinking to increase innovativeness can be implemented as complementary, especially for analytical thinking manager. It is necessary because the financing industry often dominated by capabilities in financial analysis, credit analysis, or risk mitigation which are more science-oriented. After complement with strategic art's approach, it is expected that the technostructure at the head office can also be maximized to supporting the creation and innovative breakthroughs.

6. Conclusion

Based on the hypothesis test above, there is several conclusions and recommendations. At the first hypothesis, innovativeness has a positive relation but insignificant effect on manager performance (H1a is rejected, H1b is accepted). Then strategic approach has a positive and significant effect on innovativeness (H2 is accepted). From this relationship, it can be interpreted that the strategic art approach has a positive and significant relationship to innovativeness (H2a is accepted). Conversely, the strategic science approach has a negative and significant effect on innovativeness (H2b is accepted). Then the strategic approach variable has a positive and significant relationship to manager performance (H3 is accepted). From hypothesis testing, it can be interpreted that the strategic art approach has a positive and significant relationship to managerial performance (H3a is accepted). Conversely, the strategic science approach has a negative and significant relationship to performance (H3b is accepted). Then the manager's way of gathering information also has a positive and significant effect on the strategic approach (H4 is accepted). Based on this, intuitive managers tend to be a strategic artist (H4a is accepted). And sensing managers tend to be strategic scientist (H4a is accepted).

The research here still has several limitations, so further research is required. Further research that can be carried out, for example, to analyze whether there are differences between the functional manager at the head office, regional offices and branch offices, is indeed a factor that influences and becomes a differentiator. In this case, the difference between the branch manager and headquarters manager. Branch managers often designed as an operational manager. In different language, they act as executive manager to monitor day to day activities and act as transactional leaders. While headquarter manager often designed as a think-tank for their company. They are work as technocrats to create business policy, guideline and system operating procedures. Then operating procedures will be published to be implemented in the branch office. So this further research can be carried out using discriminant analysis techniques to prove this.

References

- Aarakit, Sylvia M. Intrapreneurial Orientation, Social Networks and Firm Performance. Dissertation Makerere University. (2010).
- Ali, M., Kan, K. A. S., & Sarstedt, M. (2016). Direct and configurational paths of absorptive capacity and organizational innovation to successful organizational performance. *Journal of Business Research*, 69, 317-323. (2010).
- Borg, M. O.; Shapiro, S. L. Personality type and student performance in principles of economics. *The Journal of Economic Education*, 27(1 -Winter), 3-25. (1996).
- Buaton, Relita; Astuti, Sri. Perancangan Sistem Pakar Tes Kepribadian Dengan Menggunakan Metode Bayes. Binjai: STMIK Kaputama Binjai Sumatra Utara(2013).
- Burns, T., & Stalker, G. The management of innovation. London: Tavistock Publications. Porter (1990)
- Canh, Nguyen Thi. The Impact of Innovation on the Firm Performance and Corporate Social Responsibility of Vietnamese Manufacturing Firms. *Sustainability* 2019, 11, 3666.
- Celtekligil, Kudret; Adiguzel, Zafer. Analysis of The Effect of Innovation Strategy and Technological Turbulence on Competitive Capabilities and Organizational Innovativeness in Technology Firms. 3rd World Conference on Technology, Innovation and Entrepreneurship (WOCTINE) (2019).
- Cingoz, Ayse; Akdogan, A. Asuman. Strategic flexibility, environmental dynamism, and innovation performance: An empirical study. *Social and Behavioral Sciences* 99, 582-589 (2013).

- Conti, Gary J.; McNeil, Rita C. Learning Strategy Preference and Personality Type: Are They Related? *Journal of Adult Education* 40.2 (2011): 1-8
- De Wit, Bob; Meyer, Ron. *Strategy Synthesis: Resolving Strategy Paradoxes to Create Competitive Advantage*. Hampshire: Cengage Learning EMEA (2010).
- Dhliwayo, Shepherd. Strategic and entrepreneurial orientations: A comparison of business and engineering students. *International Conference on Innovation and Entrepreneurship (IE)*. Proceedings. (2011).
- Ford, C.M. and Gioia, D.A. Factors influencing creativity in the domain of managerial decision making. *Journal of Management*, Vol. 26, pp. 705-32. (2000).
- Gallén, T. Managers and strategic decisions: does the cognitive style matter? *Journal of Management Development* 25:2, 118–133 (2010).
- Gatignon, H., & Xuereb, J. M. Strategic orientation of the firm and new product performance. *Journal of Marketing*, 34(4), 77– 90. (1997).
- Ghodrati, Mina; Bavandian, Lida; Moghaddam, Mostafa Morady; Attaran, Atena. On the Relationship between Problem-solving Trait and the Performance on C-test. *Theory and Practice in Language Studies*, Vol. 4, No. 5, pp. 1093-1100 (2014).
- Hamsal, Mohammad; Agung, I Gusti Ngurah. Paradoxical Strategies and Firm Performance: The Case of Indonesian Banking Industry. *The South East Asian Journal of Management* Vol. I, No. 1 (2007).
- Henry, Anthony E. *Understanding Strategic Management* (2nd ed.). New York : Oxford University Press, Inc. (2011).
- Hoq, Mohammad Ziaul; Chowdhury, AHM Ehsanul Huda .An Empirical Study of the Antecedents and Consequences of Innovativeness. *World Journal of Social Sciences* Vol. 2. No. 5. August 2012 Special Issue. Pp. 184 – 197
- Hult, Tomas M.; Hurley, Robert F.; Knight Gary A. Innovativeness: Its antecedents and impact on business performance. *Industrial Marketing Management*, Volume 33, Issue 5, July 2004, Pages 429-438
- Hurley, R., & Hult, G. T. M. Innovation, market orientation, and organizational learning: An integration and empirical examination. *Journal of Marketing*, 62(3), 42– 54 (1998).
- Ismail, Md Daud; Alam, Syed Shah. Innovativeness and Competitive Advantage among Small and Medium Enterprise Exporters: Evidence from Emerging Markets in South East Asia. *The South East Asian Journal of Management*, Vol. 13 No. 1, 2019, pp. 74-91
- Johnston, Kevin A.; Andersen, Barry K.; Davidge-Pitts, Jennifer; Ostensen-Saunders, Mark. Identifying Student Potential for ICT Entrepreneurship using Myers-Briggs Personality Type Indicators. *Journal of Information Technology Education*, Volume 8 (2009)
- Keirse, D., & Bates, M. Please Understand Me II. Prometheus Nemesis Book Company; from Du Toit, F.; Coetzee, (1998). S.; Visser, D. (2005). The Relation Between Personality Type and Sense of Coherence Among Technical Workers. *Southern African Business Review* 2005
- Lawrence, R., Sebastianelli, R., & Kepler, C. Personality type and major selection for female business students. *Journal Society of Business and Behavioral Sciences Conference Proceedings*, 7(8), 171-178. (2000).
- Lofsten, H. Product innovation processes and the tradeoff between product innovation performance and business performance. *European Journal of Innovation Management*, 17(1), 61-84. (2014).
- Lumpkin, G. T.; Dess, G. G. Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, 21: 135-171. (1996).
- Mahmood, Rosli; Hanafi, Norshafizah. Entrepreneurial Orientation and Business Performance of Women-Owned Small and Medium Enterprises in Malaysia: Competitive Advantage as a Mediator. *International Journal of Business and Social Science* Vol. 4 No. 1 (2013).
- Otoritas Jasa Keuangan Statistik Lembaga Pembiayaan 2019 (Multi-nance Institutions Statistics 2019). Indonesian Financial Services Authority (2020).
- Oura, M. M., Zilber, S. N., & Lopes, E. L. Innovation capacity, international experience and export performance of SMEs in Brazil. *International Business Review*, 25, 921-932. (2016).
- Parmenter, D. *Key Performance Indicators*. John Wiley & Sons, ISBN 0470095881. (2007).
- Parnell, John and Lester, Donald L. Toward A Philosophy of Strategy: Reassessing Five Critical Dilemmas in Strategy Formulation and Change, *Strategic Change*, 12, 291-303 (2003).
- Parnell, John A; Lester, Donald L. Strategic Philosophy And High Performance: Implications For Managers of SME. *Journal of Business and Entrepreneurship*; 18, 1 (2006).
- Parnell, John A. Strategic Philosophy and Management Level. *Management Decision*, 43(2), 157-170. (2005).
- Pearce, J. A.; Kramer, T. R.; Robbins, D. K. Effects of Managers' Entrepreneurial Behaviour on Subordinates. *Journal of Business Venturing*, Vol. 12 No 2 (1997)

- Porter, M. E. The competitive advantage of nations. *Harvard Business Review*, 68(2), 73–93. (1990).
- Prifti, Rezart; Alimehmeti, Genc. Market orientation, innovation, and firm performance: An analysis of Albanian firms. *Journal of Innovation and Entrepreneurship* Volume 6, No 8 (2017).
- Robbins, Stephen P.; Judge, Timothy A. *Perilaku Organisasi* (12th ed.). Jakarta: Penerbit Salemba Empat. (2008).
- Rogers, E.M. *Diffusion of Innovations*, 3rd ed., The Free Press, New York, NY (1983),
- Stalk, G.; Evans, P; Shulman, L.E. Competing on Capabilities: The New Rules of Corporate Strategy. *Harvard Business Review*, Vol. 70 No. 3, pp. 57-69 (1992).
- Striteska, Michaela Kotkova; Prokop, Viktor. Dynamic Innovation Strategy Model in Practice of Innovation Leaders and Followers in CEE Countries—A Prerequisite for Building Innovative Ecosystems. *Sustainability*, 12, 3918 (2020).
- Velimirovic, Dragana; Milan, Velimirović; Rade, Stanković. Role and importance of key performance indicators measurement. *Serbian Journal of Management* 6(1) (2011).
- Wandrial, Son. Tipe Kepribadian Pada Mahasiswa Kelas Manajemen Universitas Bina Nusantara Dengan Menggunakan Myers-Briggs Type Indicator (MBTI). *Binus Business Review* Vol. 5 No. 1, 344-354 (2014).
- Wang, Younggui; Zhang, Xiao. Operationalization of corporate entrepreneurship and its performance implications in China: An empirical study. *Journal of Chinese Entrepreneurship* Volume 1, Issue 1 (2008).
- Yu, Feifei. Strategic flexibility, entrepreneurial orientation and firm performance: Evidence from small and medium-sized business (SMB) in China. *African Journal of Business Management* Vol. 6(4), pp. 1711-1720 (2012).

Biography

Currently he is working as a Senior Faculty Member in Management Program, BINUS Business School Undergraduate Program, Bina Nusantara University. He completed undergraduate program in Maranatha Christian University, Bandung, Indonesia; master degree in Magister Management Program at Tarumanagara University, Jakarta, Indonesia; and completed Doctor of Management at Doctor of Research in Management at BINUS Business School, Bina Nusantara University, Jakarta, Indonesia. He has long experiences in financial industry as Division Head. He lectures in management topic such as Strategic Management, Human Resources Management, Entrepreneurship, and Leaderships in BINUS Business School, Bina Nusantara University, Jakarta, Indonesia. His interest in research and areas of expertise are in strategic management, entrepreneurship, and human capital management.