

A STRATEGY MAP MODEL TO IMPROVE THE EFFICIENCY OF INDONESIAN BANKS

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Abstract: This study approaches the problem of banking efficiency in an innovative way. It aims to identify workable solutions for enhancing the efficiency of Indonesian banks as something that is very important after this pandemic Covid-19 time. In order to build a strategy map model, the research is divided into four steps: (1) a desk study of best practices for enhancing banking efficiency; (2) a survey for choosing strategies; (3) a focus group discussion to identify relationships among strategies; and (4) an Analytic Network Process (ANP) modeling to prioritize and build a strategy map model. According to the Strategy Map, the following areas should be prioritized for efficiency improvement: Financial, Customer Value, Learning and Growth, and Internal Process. Indonesian bankers could allocate limited resources in ways that would boost the efficiency of the majority of banks based on the designed strategy map. Despite the fact that these strategy maps are not universal, the research shows that the suggested method is a practical and objective way to create more justified strategy maps.

Keywords: banking efficiency, bank performance, efficiency strategy, strategy map, ANP

Abstrak: Studi ini mendekati masalah efisiensi perbankan secara berbeda. Hal ini bertujuan untuk mengidentifikasi solusi yang dapat diterapkan untuk meningkatkan efisiensi perbankan Indonesia sebagai sesuatu yang sangat penting setelah masa pandemi Covid-19 ini. Untuk membangun model peta strategi, penelitian dibagi menjadi empat langkah: (1) studi pustaka tentang praktik terbaik untuk meningkatkan efisiensi perbankan; (2) survei untuk memilih strategi; (3) diskusi kelompok terfokus untuk mengidentifikasi hubungan antar strategi; dan (4) pemodelan Analytic Network Process (ANP) untuk memprioritaskan dan membangun model peta strategi. Menurut Peta Strategi, bidang-bidang berikut harus diprioritaskan untuk peningkatan efisiensi: Keuangan, Nilai Pelanggan, Pembelajaran dan Pertumbuhan, dan Proses Internal. Para Bankir dapat mengalokasikan sumber daya yang terbatas dengan cara yang akan meningkatkan efisiensi sebagian besar bank berdasarkan peta strategi yang dirancang disini.

Kata kunci: efisiensi perbankan, kinerja perbankan, strategi efisiensi, peta strategi, ANP

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INTRODUCTION

The need to improve banking efficiency stems from three basic factors. First, Indonesian banking efficiency lagged behind neighboring nations before the pandemic (Apriyana et al. 2015). Second, there has been a deterioration in banking efficiency as a result of the pandemic according to Riani and Ikhwan (2022) and also Octrina (2021). Third, Indonesian banks have so far paid less attention to economic sectors that are seen as high risk, including agriculture. Nam (2007) contends that a more efficient bank will increase access to finance for industries such as agriculture. Once the pandemic has passed and credit concerns have receded, efficient banking operations will also be even more important in the future.

The impact of the Covid-19 pandemic on the decline in banking stability is clearly seen from the decline in the financial performance of banks in Indonesia. Meanwhile, the impact of banking stability on efficiency has been investigated by Apriadi (2017) which states that increased competition will lead to a decrease in bank efficiency, and also that increased stability will increase bank efficiency.

The term cost efficiency is often simply defined as cost cutting. In fact, Reimink (2019) find there are at least four strategies regarding cost efficiency with their respective definitions, namely: (1) Cost cutting: is the reduction of the total cost. Is a general understanding of cost efficiency, (2) Cost avoidance or future cost avoidance. Is an activity to avoid or reduce costs in the future such as replacing spare parts before causing more severe damage or loss due to cessation of operations. Cost avoidance may result in greater costs in the present but is clearly intended so that the end result is efficiency, (3) Cost containment is a control effort so that business targets can be achieved with costs that are maintained at the planned level. With cost containment, it means that management has two focuses at once, namely business targets and cost levels, (4) Value enhancement is utilizing every cost incurred. So, the focus is on the added value generated for every dollar spent. However, in nominal terms we can simplify the grouping into just two: (1) Cost cutting : for the first efficiency strategy. Here you will see the nominal costs are reduced in the short term, (2) Added Value to the costs : for efficiency strategies 2,3 and 4 above. Here the nominal cost may not

decrease in the short term but the expenditure is more utilized. The result can be cost cutting in the medium and long term.

The majority of research, according to an analysis of several studies in Bikker and Boss (2008), use a quantitative modeling style with two main focuses: measuring banking efficiency and identifying its drivers. This situation serves as an example of the need for more thorough analyses of the efficiency of banks, with the potential for combining quantitative and qualitative methodologies. Even while many studies have found that the managerial side of the bank is crucial to efficiency, few of them have produced strategies that are useful to bank management and regulators. Considering that banking management is accustomed to using Strategy Maps, the final strategy should likewise be simple to explain. Strategy Maps is a Balance Scorecard-derived approach for visualizing company strategies (BSC). The approach or instrument adopted by management for performance analysis relies on the situation and type of organization. However, the majority of successful businesses share traits, such as specific visions, constructive actions, and efficient performance monitoring techniques (Kaplan and Norton, 2004). Thus, strategic measures integrate organizational goals with the most crucial corporate vision for the organization to accomplish effective management performance (Schalock and Bonham, 2003).

By prioritizing their actions in accordance with the company's vision and implementing efficient performance management, organizations can efficiently achieve their objectives. BSC is an appropriate evaluation approach for achieving this objective (Davis and Albright, 2004). The BSC focuses on financial and nonfinancial components, long-term and short-term strategies, as well as internal and external business metrics (Kaplan and Norton, 2004). Through BSC, management is able to effectively connect with their employees and monitor the progress of strategic development in order to enhance the performance and competitiveness of the firm. Analytical Hierarchy Process (AHP) and Analytical Network Process (ANP) models have been used in a number of prior research to assist construct strategy maps. In order to achieve a more precise resolution of problems with logistical operations at a computer corporation, Ravi et al. (2005) integrate BSC with ANP to design a performance measurement system for a logistics company. According to Sudaryo

(2015), six STIE (economic colleges) in Bandung are using the Strategic Map technique to map university performance.

It is also important to explore many prior researches on the development of analytically based strategy maps. Wu et al. (2009) combine of BSC and ANP to produce a strategy map that can connect visually interdependence to improve banks' business performance. Then Wu (2012) improve the previous study by using Decision Making Trial And Evaluation Laboratory (DEMATEL) to construct a Strategy Map. Results from DEMATEL display a strategy map to assist management in selecting performance indicators and concentrating on tactical actions that are crucial for performance. In describing how to find causal connections in a strategy map, Quezada et al (2014) find that ANP is an effective technique for the modeling because it has a solid conceptual foundation for identifying key relationships in the strategy map.

There are several efficiency studies related to banking and the financial impact due to the COVID-19 pandemic that can be presented. Gaisani et al. (2021) analyze the impact of COVID-19 on the financial performance of Indonesia's poultry industry companies. Financial performance is the dependent variable while the independent variables are leverage, liquidity, revenue, profitability, firm size, and COVID-19. The results showed that there were indications of problems with the firm's financial health. COVID-19 does not significantly affect its financial performance, but several other factors influence it, namely revenue, profitability, and firm size. Several forms of strategies that can be formulated for companies are maintaining cash flow by extending the debt period and shortening accounts receivable to restore the firm's financial health. Then make efficiency in the cost of goods sold and improve operational cooperation to improve the firm's financial performance. Companies can also increase funding by obtaining additional capital from a holding company before financing from outside parties. Meanwhile, the study of Indonesian banking efficiency by Mulyana (2019) which combines quantitative and qualitative approaches concludes that the two approaches lead to a similar conclusion where the factors that are important in the stochastic frontier analysis (SFA) efficiency model are also important in the strategic map model.

METHODS

This research was conducted online and offline throughout 2018 but the results continued to be refined until this article was written. The procedure flow for doing this research is shown in Figure 1. Data from both primary and secondary sources are used in the inquiry. In the beginning, secondary data was gathered to research methods based on best practices (Table 1). The following three steps produce primary data: ranking priority strategies; polling focus group participants; and finally, building a strategy map model using ANP questionnaires. Using ANP, this article develops a strategy map in accordance with Quezada et al. (2014). This stage is carried out following a number of processes to compile, choose, and evaluate the relationships between the strategies. The presentation was created by first going over the data and methodology, then expanding on the findings and analysis.

The process begins with a desk review to collect data from pertinent prior studies and best practices related banking efficiency enhancement. Desk study is the collection of referral techniques to increase the efficiency of banking through the investigation and analysis of secondary data, such as academic efficiency studies and studies conducted by banking consultants. The collected studies are then categorized into four groups according to the BSC viewpoints of Financial, Customer, Internal Process, and Learning and Growth.

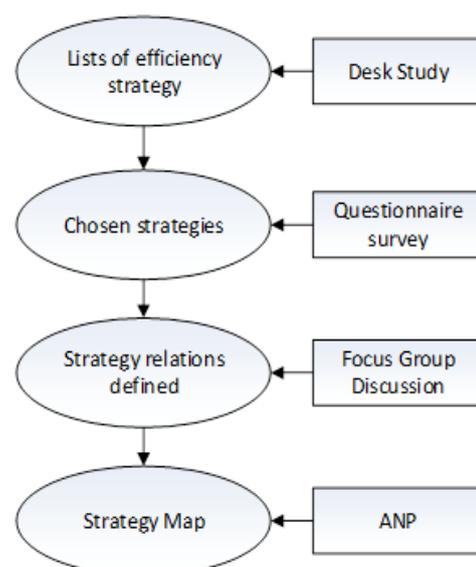


Figure 1. Research framework

Table 1. Efficiency strategies: a result of desk study

Reference	Efficiency Improvement Strategies
Profile Report of Banking Industry OJK Q IV 2016	Network reprofiling Branchless Banking
A Focus Strategy OCBC Bank Annual Report 2016	Centralized Back office Branch office tranformation OCBC Open Account & OCBC OneTouch fingerprint authentication
Bank Ekonomi, Annual Report 2015	HR competence development to increase productivity Reallocate costs into more productive sectors and activities Simplify process and procedures for more effective services
Booz & Co. How to Cut Costs and Get Your Employees to Help	Reducing complexity Product portfolio management : focus to core products Rearrange distribution channels Improve operation through IT
FIS Consulting 2014 : Five Proven Approaches to Increasing Bank Efficiency	Reduce branch office and optimized delivery channel Initiate business process improvement using appropriate information technology Matching marketing resources with its potential market Evaluate strategies, process also better alternative outsource Evaluate a better supply chain because procurements of goods and services is the second largest expenses after HR costs in banking
FIS Consulting 2015 : 7 Characteristics of Highly Efficient Banks	Reduce paper usage Alienate the entire process with appropriate and adequate technology Recruit qualified employees and facilitate them with appropriate processes and technologies Running an effective change management process Increased communication capacity Implementation of appropriate performance and reward programs Running the continuing training process as part of the resource investment
Accenture Strategy : Converting Cost to Growth	Reduced costs with less value-added Assess the cost and growth relationship by conducting a comprehensive analysis before implementing the efficiency program Selection of appropriate business models that generate long-term benefits, in this case they propose the development of Fintech as a strategic partner of the bank as an alternative to more efficient distribution channels.
Roland Berger Strategy Consultant: Cost Reduction of European Banking Sector	Process simplification (avoid complexity) Streamline the organization Simplification of product portfolio Reviewing outsourcing policies, spin-offs, etc.
Price Waterhouse Cooper (PwC) : When the Growing Gets Tough: How Retail Banks Can Thrive in a Disruptive, Mobile, Regulated World	Reduce excessive operational and back office expenses Products and services with technology investments should be sold as much as possible to be profitable Gain access to new markets and customers through cross-selling
Crone Howarth : Beyond Cost Cutting, 6 Strategies for Improving Banks' Operating Efficiency	Business realignment: to get out of high-cost and low-margin businesses and to enter more cost-effective and profitable businesses. Optimal delivery channel Process improvement to reduce costs Increase staff productivity Utilization of information technology & automation process Review cooperation with vendors

Reference	Efficiency Improvement Strategies
The Boston Consulting Group : Operational Excellence and Efficiency in Retail Banking	<p>Improve the performance of end to end (sales and service effective)</p> <p>Develop an efficient and effective process (automation process)</p> <p>Organizational restructuring (centralization, outsourcing)</p> <p>Reduce business complexity</p> <p>Perform strict performance management and sales</p> <p>Ernst and Young :</p> <p>Banking in Asia-Pacific Size matters and digital drives competition</p> <p>World Islamic Banking Competitiveness Report 2016 New realities New opportunities</p>
Banking in emerging markets	<p>Invest more for technology-based business models and drive efficiency through simplification and standardization,</p> <p>Invest in digital channels to meet customer needs</p> <p>Accelerate corporate growth through straight-through processing (STP)</p> <p>Automation process</p> <p>Reduce the cost to serve (sales and service effectiveness)</p> <p>Focus on areas of expertise</p> <p>There is a recommendation for collaboration between participating banks for mutual benefit from Fintech's innovation. These benefits will be attributable to network effects, economies of scale, efficiency in exploring Fintech's emerging innovations.</p>
Ryan Kiryanto (2015) Elaboration of inefficiency factors in Indonesian banks	<p>Ineffective part of the bank's business strategy so that many expenses incurred for results that are less than the maximum and even harmful</p> <p>Wide organizational structure</p> <p>The composition of non-business functions compared to the business is too large either in the board of directors or under the organization</p> <p>Lack of competence of bank officials, so that a job must be completed more personnel</p> <p>Non-corporate activity, especially in state-owned banks and BPD is still too much</p> <p>Large branch and ATM branch investment whereas some can be transferred by activating mobile and internet banking</p> <p>Ineffective organizational management, such as the number of less productive meetings</p>

This study's second step is a survey of 54 senior bankers from 27 sample banks, out of a total population of 116 institutions in Indonesia. Respondents are requested to assign numerical rankings to linked strategy options. Using the geometric mean of all respondents' rankings, the most significant techniques for each BSC perspective are determined. A survey or self-administered survey is a technique for collecting primary data by posing questions to respondents. It is a technique for gathering data from groups that represent a population: the number of responders. This study's survey had two objectives: (1) establishing the priority of the strategy to be picked from the many possibilities; and (2) estimating the efficiency that would have resulted from implementing the selected strategy.

A focus group has two main components, according to Puchta and Potter (2004) is a moderator who prepares questions or clues, and the goal of eliciting participants' feelings, attitudes, and perspectives on a particular problem. Focus groups are a tactic for emphasizing, extending, and improving the quality of relevant topic-related findings obtained through other approaches, according to Bloor et al. (2001). Focus groups can be used to give participants input on earlier research findings as a project comes to a close. FGD will be used in this study to (1) validate survey results and (2) establish relationships between different techniques. A discussion was convened to develop a consensus on how to simplify the plan, which is challenging to implement and communicate.

Using the scale of the separate ratios of the influence of interdependent elements with regard to certain criteria, the ANP is a general theory of relative measurement that is used to produce a composite priority ratio. Thomas L. Saaty developed this strategy, which is an extension of the Analytic Hierarchy Process (AHP) method (Saaty and Vargas, 2006).

Based on their ability, expertise, knowledge, and experience in the process of boosting the effectiveness of the banking organization, seven responders were chosen. Seven top executives from different banks, including state-owned, privately held, and sharia banks, are represented. Interaction with respondents also includes in-depth face-to-face interviews as part of the process of assuring the quality of interviews so that interviewers and interviewees have a shared understanding of the topics discussed. Additionally, the interviews provided insight into the state of commercial banks in Indonesia and their experiences with efficiency improvement initiatives. The engagement process with respondents touches on managerial consequences in addition to completing the questionnaire, which

deepens the topic of this research. Microsoft Excel and the Super Decision application are used by the ANP.

RESULTS

After compiling numerous sources, this study concludes that following is the ranking matrix for the selected strategy priority, denoted with an asterisk. The figure in the right column is the geometric mean of the ranks supplied by all respondents, which reflects the significance of the strategy in the respondent's eyes (Table 2).

A lower ranking value implies a plan with a higher priority. Using the number in the right column as the geometric mean of the strategy's per-perspective ranking of priorities, the three highest priorities from each perspective will be taken to the subsequent FGD process to complement the relationship between the strategy and ANP questionnaire in order to produce a complete Strategy Map.

Table 2. Strategy Selection based on Survey (* - selected)

	Priority Setting		Selected
Learning and Growth	Improve personel competency	1,36	*
	Increase frontliner ratio (CCP/Non CCP)	2,49	*
	Human resources flexibility	3,97	
	Reduce personels	3,96	
	Introduce smart spending culture	2,58	*
	Others	5,43	
Internal Process	Improve business strategy evaluation process	1,87	*
	Digitalize paperwork	2,99	
	Improve business process	2,38	*
	Reduce meetings and travels	4,58	
	Improve organization effectiveness	2,17	*
	Others	5,48	
Customer Value	Move distribution channels to internet-based incl Fintech	2,14	*
	Optimize branch office network incl Branchless Banking	1,85	*
	Vendor rationalization	3,54	
	Optimize product portfolios	3,10	
	Matching marketing tools with its potentials	2,61	*
	Others	5,94	
Financial	Cost cutting	2,35	*
	Cost avoidance	3,88	
	Cost containment	2,68	
	Added value	2,38	*
	Increase revenue	2,14	*
	Others	5,77	

In addition to ranking, respondents were asked to estimate the efficiency impact of implementing the selected method. In this instance, the respondent will offer an opinion in the form of cost reduction estimates that may result from implementing the efficiency improvement approach.

By looking at the number in the right column as the geometric mean of the priority ranking strategy for each perspective, we have the three best priorities from each perspective to include in the subsequent FGD process to complement the relationship between the strategy and ANP questionnaire in order to produce a complete Strategy Map. Based on the weight in the super matrix, we generate a comprehensive strategy map that includes the weight of each component and the relationship between components in the model. This is an effort that involves a lot of consideration from practitioners where alternatives from a desk study are then selected based on their priorities so that a summary of efficiency strategies will be carefully assessed based on decades of practice in the banking world.

The use of the ANP model to form a Strategy Map is a scientific answer on how to link the linkages between strategies to improve banking efficiency, especially the cause-and-effect relationship that has been done intuitively by strategic management practitioners. Thus, a complete strategy map can be produced with lines of cause-and-effect relationships (Table 3).

Table 3. Strategy Prioritization by ANP

No.	Strategies	Mean
1	Optimize branch office network	0,363
2	Migrating distribution channels of fintech	0,331
3	Matching marketing tools with its potentials	0,306
1	Value added	0,353
2	Cost cutting	0,229
3	Revenue improvement	0,418
1	Improvement of strategy formulation	0,342
2	Improvement of organization effectiveness	0,376
3	Bussiness process improvement	0,282
1	Competency improvement	0,386
2	Improve ratio CCP to non-CCP (customer contact person)	0,329
3	Smart spending culture	0,285
1	Financial	0,300
2	Customer	0,244
3	Internal	0,194
4	Learning and growth	0,262

The strategy map begins with the most fundamental perspective, which is the Learning and Growth perspective. Competency development to increase productivity is the most important strategy in the Learning & Growth perspective, and it will influence the strategies of “Revisit Business Model” and “Initiate Business Process Improvement (BPI)” because both strategies in the Internal Process Perspective require employee support from competent employees. Meanwhile, the “Smart Spending Policy” will immediately relate to the “Cost Reduction” effort on the Financial Perspective. While the “Streamline Organization” effort will be directly tied to the development of business processes, one of the indicators of effective business process development is a leaner organization.

From the perspective of Internal Process, “Initiate business process improvement (BPI)” is the most important initiative, which can be interpreted as meaning that efficiency may be reached if all internal business processes are enhanced. This effort will encourage the output of products and services that fulfill the requirements of clients. In the meantime, the “Revisit Business Model” program will encourage customer-centric systems and optimize delivery methods. In the meantime, “Organizational Effectiveness” is anticipated to promote market-oriented services and goods. According to Muljawan et al. (2014), the cost of branch management is exorbitant, so it must be transferred to the optimal delivery channel in place of the branch function. “Delivery Channel Optimization” will be an initiative from the perspective of the most influential customer to improve efficiency. This initiative is also essential, as it will affect all other activities from a budgetary perspective. In the meanwhile, good product portfolio management will undoubtedly become the foundation for evaluating the profitability of each product and service, which has a significant impact on efficiency.

From a financial perspective, increasing revenue is the most essential issue, followed by cost structure improvement and cost reduction. All of this will eventually come together to make the financial system in Indonesia more efficient and competitive. Bank efficiency improvement is a multi-step process, thus the easiest to implement measures should be given the highest priority.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Making a general strategy map to improve banking efficiency in Indonesia is a worthwhile and goal-oriented endeavor that will raise financial inclusion, extend banking services to previously underserved areas like agriculture, and generally enhance people's welfare.

The results indicate that the ranking matrix for the selected strategy priority begins with the most fundamental perspective, namely the Perspective on Learning and Growth. Where is the Learning & Growth perspective, and how will it impact the "Revisit Business Model" and "Initiate Business Process

Improvement" strategies? Both of these strategies in the Internal Process Perspective require competent employee support. Revenue growth is the first concern, followed by cost structure improvement and cost reduction. All of these factors will eventually converge to make the Indonesian financial sector more efficient and competitive.

With the resulting model (Figure 2), we can see that the competence of human resources is a fundamental efficiency improvement effort. Competent humans can produce outputs that far exceed those in average conditions. Likewise, fixing the organization to be effective is a very significant saving effort. The culture that supports organizational effectiveness thus becomes a very important effort from the business process perspective.

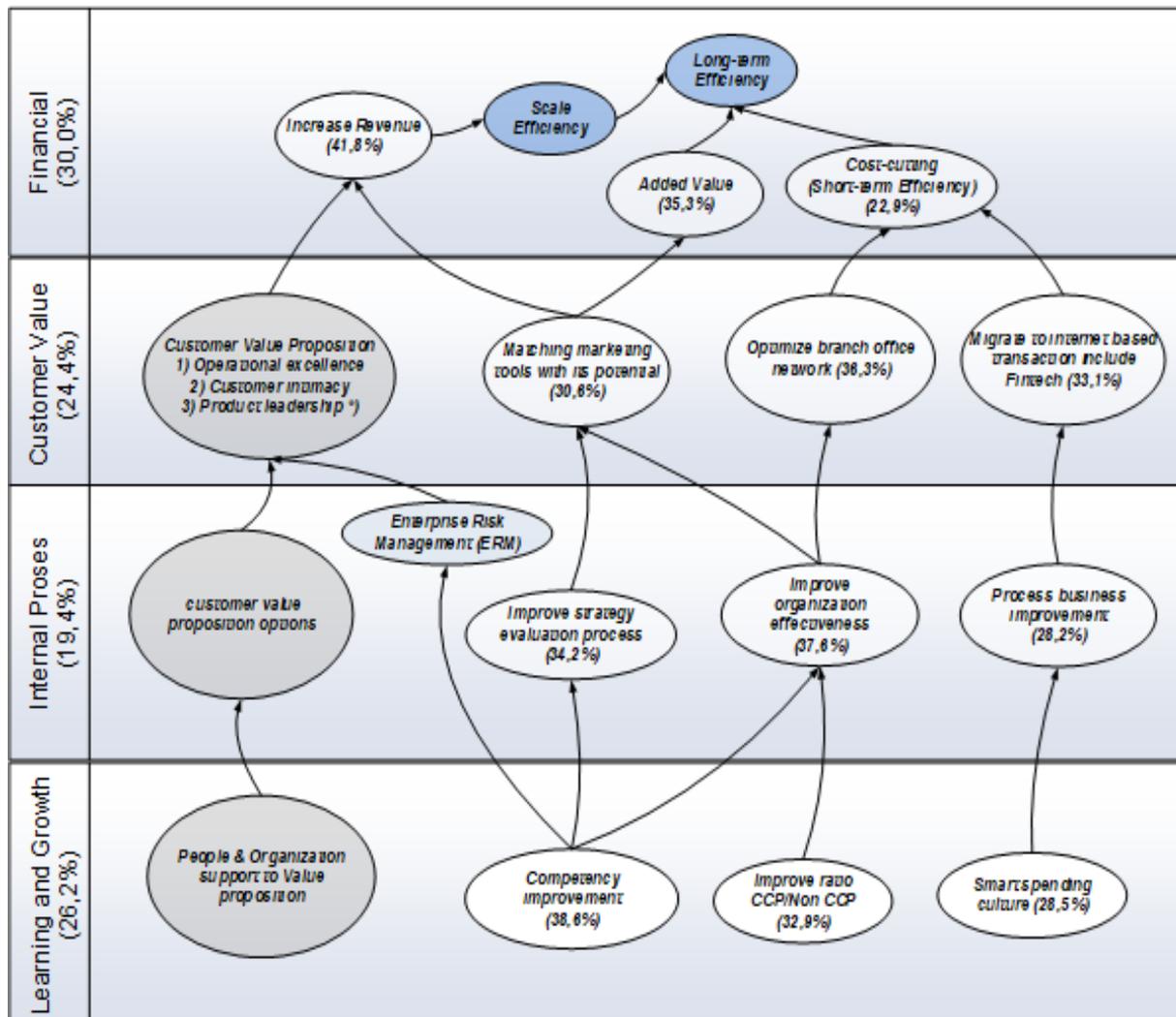


Figure 2. Strategy map of banking efficiency improvement

The priority for increasing efficiency after the pandemic is digitalization efforts that directly lead to the two most important strategies from a customer perspective, namely optimizing network (delivery channels) and improving internet-based services or what is now more often called digital banking. Banking digitalization can actually be carried out at the product, division level, creating a subsidiary or building a whole new digital bank. It all depends on the capital capacity of each bank. From the strategy map, it is clear that efficiency efforts that are more important from a financial point of view are adding value to the costs incurred. This is in line with the fact that many investment products in banking have not been optimally productive, but the menu has been changed again with other products. Efficiency efforts by cutting costs are the second choice after cost optimization efforts have been carried out. This is much different from the common practice that is usually carried out by banks until now where the main effort to increase banking efficiency is cost cutting. This article has succeeded in proposing a different path from the mainstream, namely that efforts to increase efficiency should be focused on adding value to these costs, by increasing the benefits of a bank expense.

Compared with the study of Wu (2012) which also built a strategy map for banks but used the DEMATEL (Decision Making Trial and Evaluation Laboratory) tool instead of using ANP. The ANP method is more practical than DEMATEL because it does not require expert verification such as focus group of discussion (FGD). From the construction of the banking strategy map, the implementation of the study is more general because it does not produce priority weights.

Recommendations

The substantive input from this research for the Indonesian banking industry is that the strategy model is still generic so that before being applied, each bank needs to conduct an evaluation in order to adopt factors that are specifically found in each bank. Each bank will have its own characteristics that must be defined and covered so that its efficiency strategy is in accordance with its specific conditions. Then, although this research has recommended a strategy map to increase efficiency, it is possible that we need a separate study to develop recommendations for an effective incentive system so that Indonesian banks are willing to strive to be more efficient.

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