BUSINESS STRATEGY DEVELOPMENTWITH 360° BUSINESS MODEL INNOVATION PERSPECTIVE IN PT NEC INDONESIA

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Abstract: As a company engaged in information technology and telecommunications, PT NEC Indonesia is aware of the opportunities and challenges in the next few years where rapid change, growing complexity and uncertainty are the basis for how the company designs solutions to help customers and society. This study aims to determine the business model applied by PT. NEC Indonesia and to find out the preparation of a business development strategy plan at PT. NEC Indonesia is based on a 360° innovation business model framework with 5 main components, namely value creation, value proposition, value delivery, value capture and value communication. The data obtained are the results of questionnaires and interviews with seven respondents who are company management and several customers. The results showed that the total score of the IFE matrix was 1,93 and the EFE matrix score was 1.68. These results place PT NEC Indonesia in quadrant I, namely high market growth and a strong competitive position. From the analysis of PT NEC Indonesia's business model, it is necessary to make improvements to several components of the 360° BMI framework. The value creation component, the importance of value-added focus on every solution offered by improving services to be more dynamic not only as a customer but more towards being a partner through a co-creation business strategy. While improvements to the value proposition and value capture component with a focus on added value, the initiation of determining the pricing model with value-based-pricing and recurring revenue model can be applied as a diversification in profitability and efficiency.

Keywords: co-creation, 360° business model innovation inovasi, reccuring revenue model, swot, value-based-pricing

Abstrak: Sebagai perusahaan yang bergerak dibidang teknologi informasi dan telekomunikasi, PT NEC Indonesia menyadari akan peluang dan tantangan dalam beberapa tahun kedepan dimana perubahan yang cepat, kompleksitas yang berkembang dan ketidakpastian menjadi dasar bagaimana perusahaan merancang solusi untuk dapat membantu pelanggan maupun masyarakat. Penelitian ini bertujuan mengetahui model bisnis yang diterapkan oleh PT. NEC Indonesia serta untuk mengetahui penyusunan rencana strategi pengembangan bisnis pada PT. NEC Indonesia berdasarkan kerangka kerja 360° model bisnis inovasi dengan 5 komponen utama yakni value creation, value proposition, value delivery, value capture dan value communication. Data yang diperoleh merupakan dari hasil kuesioner dan wawancara dengan tujuh orang responden yang merupakan manajeman perusahaan dan beberapa pelanggan. Dengan hasil penelitian menunjukkan bahwa perhitungan total skor matriks IFE berjumlah 1,93 dan skor matriks EFE berjumlah 1,68. Hasil tersebut menempatkan PT NEC Indonesia pada kuadran I yakni pertumbuhan pasar yang tinggi dan posisi kompetitif yang kuat. Konsentrasi berkelanjutan pada pasar saat ini dan pengembangan produk adalah strategi yang sesuai. Dari analisis bisnis model PT NEC Indonesia perlu dilakukan perbaikan pada beberapa komponen kerangka kerja 360° BMI. Komponen value creation, pentingnya value added focus pada setiap solusi yang ditawarkan dengan meningkatkan pelayanan untuk lebih dinamis bukan hanya sebagai pelanggan namun lebih kearah sebagai partner melalui strategi bisnis co-creation. Sedangkan perbaikan pada komponen value proposition dengan fokus terhadap added value maka inisiasi terhadap penentuan pricing model dengan value-based-pricing bisa diterapkan sebagai diversifikasi dalam profitability dan efficiency.

Kata kunci: co-creation, inovasi model bisnis 360 derajat, model pendapatan berulang, swot, value-based-pricing

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INTRODUCTION

The digital era that dominates people's activities today is the impact of advances in information and telecommunications technology, network improvement is a great opportunity for companies engaged in information technology and telecommunications infrastructure. PT NEC Indonesia as one of the companies engaged in this field sees opportunities and challenges in the next few years where rapid change, growing complexity and uncertainty become the basis for how the company designs solutions to be able to help customers and the community. There are three revenue streams owned by the company, namely telecommunication network solutions (carrier telecommunication solutions), IT solutions (IT service business solutions), and multimedia products. Of the three streams, two of them cannot do business optimally, the company is only supported by the carrier telecommunication solution segment. Meanwhile, the other two revenue streams experienced a decline in sales orders from year to year. In addition, the company has a revenue gap such as delivery time that is not in accordance with the target timeline, which causes the company to pay compensation.

Therefore, it is important for companies to be able to identify problems and potentials faced by the company. The company need to develop business strategies efficiently by following a standard process focusing on the development of goals, objectives, strategies, and tactics based on factual data. Adopting from the journal written by Rayna and Striukova (2016) that increasing digitization can make changes to the pricing model and old revenue model becomes obsolete and require different ways of capturing value. Which means that business model innovation is closely related to technological innovation (Chesbrough, 2010; Amit and Zott, 2011). Beside that Mechanism of business model innovation can carry out through the integration of internal and external perspectives (Ramdani et al. 2019).

In addition, the complexity of business model innovation with an uncommon language and the lack of tools that can be applied universally are challenges for companies to be able to modify their business models. This gap can be addressed with a 360° business model framework that is able to represent all aspects of the business model from a value perspective. Therefore, the author took the initiative to be able to see the

company's business model from the perspective of the 360° business model innovation framework. Where the business model is in line with the company's big goals that prioritize value for society, namely safety, security, efficiency and equality. In determining strategic steps, companies need to determine strategic management which is a series of managerial decisions and actions that determine the company's performance in the long term which includes environmental observation, strategic formulation, strategic implementation, and evaluation and control (Hunger and Wheelen, 2003) and all things about gaining and maintaining a competitive advantage (David et al. 2016). Environmental observations can be carried out by situation analysis or better known as SWOT analysis which is the beginning of the strategy formulation process that requires finding a fit strategies between external opportunities and internal strengths, in addition to pay attention to external threats and internal weaknesses (Hunger et al. 2003). The strategy formulation (Susanto 2017; Aprilius 2019) includes developing a vision and mission, identifying an organization's external opportunities and threats, awareness of internal strengths and weaknesses, setting long-term goals, searching for alternative strategies, and selecting certain strategies to achieve goals.

In strategic implementation, the business model is a tool for how companies create and deliver value to customers (Osterwalder and Pigneur, 2010), and then turn the payments received into profits. Strategic choices related to the proportion of the company's fundamental value, the target market and market segment, the value chain structure needed to realize the relevant value proportion and the value capture mechanism applied by the company are part of the competitive strategy (Teece, 2010). In maintaining sustainable business practices in relation to providing a positive impact on the future life of the company and the environment, it is necessary to have a business model innovation which is a realignment of activities, customer relationship management (Li, 2018), routines, and contracts that result in a new configuration of how the company creates and captures new value. for the product/service market in which the firm competes (Foss et al. 2015). To be effective, business model innovation (BMI) requires business skills, strategies and resources, in this case including the company's entrepreneurial abilities, entrepreneurial behaviour, and company orientation (Al-Nimer et al. 2021). Business model innovation with a 360° perspective Business Model Innovation is looking at the complexities in business models

that can give urgency to the need for a framework that covers all components of a business model and provides a comprehensive view of the possibilities of business model innovation and its possible outcomes. Where a business model with a 360-degree framework perspective will provide an effective tool for contemplating, planning, and implementing business model innovations. Some of the main components in this business model include value creation, value proposition, value capture, value delivery, and value communication (Rayna et al. 2016; Kaplan, 2019).

This study aims to determine the business model applied by PT. NEC Indonesia and to find out the strengths, weaknesses, opportunities, and threats of the company through a SWOT analysis so that a business strategy development plan can be prepared at PT. NEC Indonesia by mapping the 360° business model innovation framework with 5 main components, namely value creation, value proposition, value delivery, value capture and value communication.

METHODS

This research was conducted for 6 months from October 2021 to March 2022 at PT NEC Indonesia which is domiciled in Gd. Summitmas I, South Jakarta. The type of data used is primary data and secondary data, for data collection techniques the primary data is obtained through in-depth interviews, filling out questionnaires with the management of PT NEC Indonesia and several company customers. As for the secondary data obtained through internal company documents, company websites and journals related to this research. Data processing techniques and data analysis in this study is descriptive-qualitative analysis. First, the authors conducted an analysis using a descriptive method, by collecting data and information on the current condition of PT NEC Indonesia, both internally and externally. After that, a 360° Business Model Innovation mapping is carried out which is being carried out by PT NEC Indonesia using the 5 main components of the 360° Business Model Innovation based on actual business conditions.

The author identifies what are the strengths, weaknesses, opportunities, and threats based on internal and external factors by conducting a SWOT analysis with weighting through the IFE matrix (Internal Factor Evaluation) and

the EFE matrix (External Factor Evaluation). Followed by analyzing the company's position with the grand strategy matrix. Companies can be positioned in one of the four strategic quadrants (quadrant I, quadrant II, quadrant III, and quadrant IV). Determination of the company's long-term goals for at least the next 5 years based on the company's vision and mission and formulating alternative strategies through the SWOT matrix into SO strategies, WO strategies, ST strategies, and WT strategies.

Create value to improve business models using a 360° Business Model Innovation perspective by mapping five elements of the framework, each of which is connected in a circle including the components of value creation, value proposition, value capture, value delivery, and value communication tailored to long-term goals the company in making improvements/ alternative designs for the company's new business model. Research framework in Figure 1.

RESULTS

The company sees the potential where the development of the ICT environment is changing rapidly due to digital transformation being implemented in many sectors, which is a great opportunity for companies to continue to take part in these developments. This can play a role in capturing new business and opportunities because the company has the potential where technology and solutions from PT NEC Indonesia can help to accelerate the digital transformation of companies in any industry such as banking and other financial services, transportation and logistics, manufacturing, retail, and many more other sectors. However, in the course of its business, there are several general problems, starting with key resources related to product innovation and the problem of delivering product knowledge to sales and engineers which are not conveyed properly.

360° Business Model Innovation

The identification of the business model in this study was carried out using 360° business model innovation with five framework components, namely value creation, value proposition, value delivery, value capture, and value communication. The following are the results of identification from PT NEC Indonesia based on the five main components of 360° BMI.

Value Creation

PT NEC Indonesia has core competencies that are differentiated by segment, namely carriers & broadcasting (IP Radio, network security solution, OSS & BSS, submarine, DWDM, OTN, etc.), enterprise solution and Government/public service (POS, MS Dynamics, ERP, transportation, system integration, digital signage, financial service, NFC/e-payment), (large scale biometric solution, smart stadium solution, smart & safer city, cyber security, and Smart airport solution), and multimedia solution (projector, public displays, desktop monitors, & interactive white board solutions).

The key resources currently owned by PT NEC Indonesia can be divided into 3 parts, the first is assets which include intellectual properly/patent, related with hardware and services, software, brand awareness, NEC-ID also has products with reliable technology. And the second is human resources, currently PT NEC Indonesia has more than 270 employees with

professional sales and certified engineers (PMP, JUNOS, OSIsoft PI System, and others). In addition, PT NEC Indonesia has a wide/global network. The third part is financial, where PT NEC Indonesia has strong financial fundamentals supported by NEC APAC and NEC Corporation as shareholders.

In exploiting new innovations, PT NEC Indonesia needs several complementary assets, where currently PT NEC Indonesia has human resources capable of conducting consultations in terms of providing services to customers such as: Network and software design, Engineering, Consultancy and System Integration Service, Project management, Repair, system operation and maintenance support. Meanwhile, in the current value network, the company collaborates with partners in providing solutions, for example in the carriers & broadcasting segment collaborating with Juniper Network (routers, switches, network management software, & network security products) as well as in other segments.

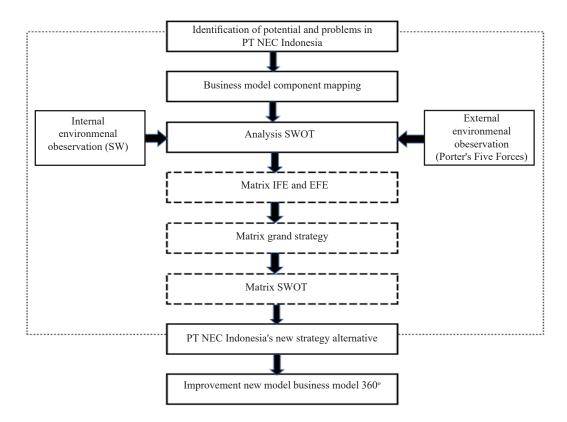


Figure 1. Research framework

Value Proposition

The values that PT NEC Indonesia is trying to communicate to its customers are how the products and services offered to customers are indeed worth buying, such as PT NEC Indonesia's products which cover the need for hardware and software for telecommunications and broadcast infrastructure, hardware and software, for retail such as Point of Sales (PoS), MS Dynamic and Near Field Communication (NFC)/e-payment. Meanwhile, the services offered include network and software design, engineering, consultancy and system integration services, project management, repair, system operation and maintenance support. In packaging the current prices of PT NEC Indonesia's products and services, namely, Performance based pricing for customers who use maintenance services and Project based pricing for work implementation work.

Value Delivery

Value delivery is related to how the company's distribution channels are currently being carried out, namely PT NEC Indonesia is the brand holder for NEC products in Indonesia which has a wide market share link/network and utilizes partners to work together, such as in installation work with several local subcontractors. In addition, PT NEC Indonesia is also partnering with solutions from other companies to be able to adapt to customer needs, such as for the needs of the OSIsoft PI System or Juniper Network. Meanwhile, the market segments target at PT NEC Indonesia are adjusted to the company's core business competencies, namely telecommunication operator companies, broadcasting companies, retail enterprises, government & public Service Solutions, banking companies, manufacturing companies, and hospitality & entertainment companies.

Value Capture

Currently PT NEC Indonesia generates revenue by selling hardware, software, and services in the form of implementing these devices as well as performing maintenance services, at this stage there is added value that can be distributed to customers (Sjodin et al. 2020).

While the costs incurred by the company are in the form of fixed costs (leases (property & vehicle), employee's salaries and other competition (SAP support fees and miscellaneous) and for variable costs (purchase of hardware and software, subcontractors, engineers, and overhead costs).

Profit allocation is a system to ensure companies do not overspend and always consider making profit or allocated profit. Related to this, PT NEC Indonesia calculates Profit and Loss (PnL) on each project that will be carried out by allocating profits ranging from 13% to 30%.

Value Communication

PT NEC Indonesia's main communication channel is an office located at Summitmas 1 Building, South Jakarta, which is a representative office. In addition, the company has a dedicated sales force, email, telephone, teams and zoom in its business activities. As for general information about the company and the solutions offered, customers and potential customers can directly access the PT NEC Indonesia website on the: https://id.nec.com/, on that page visitors have found news, press releases, event calendar related to PT NEC Indonesia's business activities. To find out the extent of customer satisfaction in delivering projects, the sales team always conducts customer satisfaction surveys regularly through customer satisfaction surveys.

The next step, the author conducts a SWOT analysis, where this method is carried out to determine the company's business strategy for future business continuity. The resulting strategy formulations are IFE matrix, EFE matrix and grand strategy matrix, which are then made alternative strategies through SO, WO, ST and WT strategies. The results showed that the total IFE matrix score was 2.07 and the EFE matrix score was 1.84 (Figure 2). These results place PT NEC Indonesia in quadrant I (one), namely high market growth and strong competitive position. According to David et al. (2016) that continuous concentration on the current market namely market development and product development is a suitable strategy.

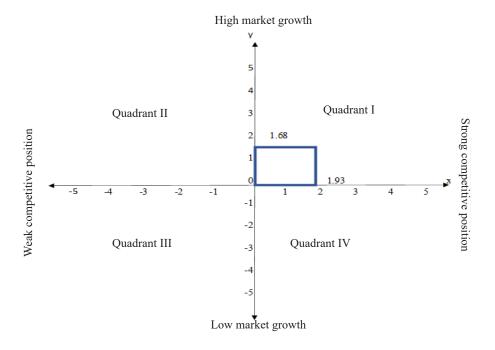


Figure 2. Grand strategy matrix

Strategic steps of market development, companies can do:

Switch to a Recurring Revenue Stream Model through Co-creation as a mediation model (Rurianto, 2022) with customers and other stakeholders to meet industry and business needs so as to develop a clear picture to fill gaps in very complex social issues, such as offering solutions with the OPEX scheme (quarterly payment, monthly subscription, transaction based or revenue sharing). Need to add sales targets for new solution products in each sales account to increase promotion and sales. Improve capability and collaboration with other parties in integrating technology and business throughout the company's target market by prioritizing the value of society, namely: safety, security, efficiency, and equality. Strengthen engagement /bounding relationships by always maintaining customer service level and speed in responding to the need to gain trust and opportunities to increase repeat orders and new orders for other solution needs. The need to generate awareness of the new solution owned by PT NEC Indonesia through digital marketing as one of the strategies for promoting NEC solutions.

Strategic steps related to product development can be carried out:

Creating Information and communication Technology (ICT) with distinctive solutions that underlie social value creation to face challenges in the era of disruption as well as threats from very aggressive competitors in terms of price and technology, such as high-capacity MW transmission system up to 3Gbps. Asking the principal to create products with good technology and low prices by considering competitors who are more aggressive in terms of price and technology. In increasing revenue, it is necessary to make a policy not to allow PT NEC Indonesia to sell its own products or partner products without adding value.

From the strategic steps, a new business model refinement was compiled by not eliminating the previous strategic steps. In improving this business model, it is in addition to perfecting strategic steps that have not been carried out by the company (Table 1).

Managerial Implications

The managerial implication is a manifestation of the preparation of a new business model based on the improvement of the 5 main components of the 360° business model innovation, but in the implementation of the strategy it will be adjusted to the conditions and

Table 1. Improvements with 360° business model innovation

Component/ Framework Elements	Existing Business Model PT NEC Indonesia	Improvement Business Model PT NEC Indonesia
Value Creation		
Core Competencies	NEC-ID has a variety of solutions that can be offered, namely: Carriers & Broadcasting, Enterprise Solutions, Government & Public Service, and Multimedia Solutions	Creating ICT solutions that have the characteristics of the company's core competencies (distinctive solutions).
Key resources	Assets	Assets
	Intellectual property/patent	-
	Hardware and related services	Product development on High-capacity MW Transmission System up to 3Gbps (CSD).
	Software	-
	Brand Awareness	-
	NEC-ID has products with reliable technology	-
	Human Resources	Human Resources
	More than 270 employees include professional sales and certified engineers	Optimizing the sales team by adding a new sales solution target to the KPI for each sales account.
	Wide Networking/global network	HRD must be more responsive in responding to employee developments and gaps by providing clear career paths, conducting various trainings, appropriate assignments and strengthening teamwork.
	Financial	Financial
	NEC-ID has strong financial fundamentals supported by NEC APAC and NEC Corporation	Enables companies to be able to provide more flexible payment terms for retention and loyal customer. Such as divert payments.
	Financial officer expert	-
Governance	Company policies and procedures are running quite effectively	-
Complementary Assets	Network and software design	Value added focus for each solution offered not only on the device, but can also focus on Network monitoring management (CSD)
	Engineering	-
	Consultancy and System Integration Service	-
	Project management	-
	Repair, system operation and maintenance support	-
Value Networks	Collaboration with partners	Improving services to be more dynamic, not only as a customer but more towards being a partner through a co-creation business strategy.
Value Proposition		
Product Offering	Hardware and Software for telecommunications and broadcast infrastructure	Improving product innovation regularly according to market needs
	Hardware and Software for enterprise such as POS, MS Dynamic	-
	Hardware and Software for public such as NFC/e-payment	-
Service Offering	Network and software design	Improve the ability to integrate technology and business. Like OPEN RAN in its goal of reducin CAPEX 5G (CSD)
	Engineering	-
	Consultancy dan System Integration Service	-
	Project management	-
	Repair, system operation and maintenance support	-

Table 1. Improvements with 360° business model innovation (continue)

Component/ Framework Elements	Existing Business Model PT NEC Indonesia	Improvement Business Model PT NEC Indonesia
Pricing Model	Project based pricing	Need to increase initiation in determining pricing models such as value-based-pricing.
	Performance based pricing	-
Value Delivery		
Distribution Channels	PT NEC Indonesia is the brand holder for NEC products in Indonesia	Strengthening relationships with partners and suppliers.
	Using local subcontractor to do the installation	Added a clause not to allow partners to continue working directly with customers without the knowledge of PT NEC Indonesia.
	Partnership with solutions from other companies to be able to adapt to customer needs.	-
Target Market Segments	Telecom operator company	-
	Broadcasting Company	-
	Enterprise retail	-
	Government and Public Service Solution	-
	Banking	-
	Manufacturing company	-
	Hospitality and entertainment company	-
Value Capture		
Revenue Model	Sales of Hardware and Software	Switching to a recurring revenue stream model by creating sustainable and increasing customer needs according to the radio capacity used, customers can make payments on a regular basis / quarterly.
	Services (IT and Network solution, Maintenance support and Consultancy).	-
Cost Structure	Fixed cost (leases property & vechicle), employee's salaries and other compensation, SAP support fees and miscellaneous).	-
	Variable costs (purchase of materials (hardware and software), subcontractors, engineers, and overhead costs).	-
Profit Allocation	NEC calculates Profit and Loss on each project that will be carried out.	Take into account unexpected costs to accommodate errors in quotation calculations.
Value Communication	ı.	
Communication Channel	PT NEC Indonesia Office	-
	Dedicated Sales Force	The sales team is more proactive with customers and prospective customers to get opportunities from various target markets that the company is aiming for.
	Email	-
	Telephone	-
	Website	Increase creative social media content and use Indonesian more to increase awareness of target customers and share more knowledge about NEC solutions.
	News	-

Table 1. Improvements with 360° business model innovation (continue)

Component/ Framework Elements	Existing Business Model PT NEC Indonesia	Improvement Business Model PT NEC Indonesia
	Press releases	Increase media coverage reports by collaborating with journalists to be able to cover various events related to the story success of PT NEC Indonesia. In addition, a journalist writing competition with a theme related to the business of PT NEC Indonesia can also be held.
	Event Calendar	Focus on promotion of new solutions, especially the transportation, retail and FSI solutions to target customers by conducting regular and consistent webinars, workshops (knowledge sharing) so that target customers are aware of the readiness and technological development of PT NEC Indonesia to face market changes.
Ethic and Story	Organizational Values and Culture are considered to represent Japanese culture that adheres to discipline	-
	Market opinion considers the brand image of Japanese-made products as reliable products.	-
	The sales team always conducts customer satisfaction surveys periodically (6 months) through the Customer Satisfaction Survey (CSS).	-

capabilities of the company. The results of this study provide an overview to PT NEC Indonesia's current business model that there are several important things that the company can do and become the key to business development in the future to maintain and improve company standars and quality (Koeswanto 2016).

The strategy that is a priority for the company to carry out is as follows:

- 1. Companies must be able to work with customers in capturing the value of co-creation in goal of solving common problems (Guo et al. 2021). Such as the need for a High-Capacity MW Transmission System to support 5G network capabilities, which is the result of coordination between the company and the customer that has not been met.
- 2. As a follow-up to capturing the value of co-creation, the company needs to provide a product in the form of a High-Capacity MW Transmission System with a high capacity of up to 3 Gbps and a service offering in the form of implementing the infrastructure of the device. The company offers a "value-base-pricing" where pricing is based on the buyer's perception of product value (Kotler et al. 2005) pricing model where customers can buy NEC's High-Capacity MW Transmission System products with existing capacities, and then the company can add capacity until customer needs are met by upgrading equipment or other things. Customers will only make payments according to the capacity that has been used with quarterly payments.

- 3. For the revenue model/revenue streams that was initiated, it will change the revenue model into a recurring income model (Osterwalder 2010), where the company is able to have a sustainable income on a regular basis according to customer capacity requirements per quarter.
- 4. The company's communication channel is expected to be able to empower a dedicated sales force where they must focus on one B2B customer with several requirements from customers and prospective customers. Besides that, it is necessary to create a communication forum between customer users and NEC planners and sales, it is also important to conduct workshops consistently so that information from customers is not interrupted if there is a need related to the company's business.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

PT NEC Indonesia is a company engaged in telecommunications infrastructure and ICT solutions in Indonesia which in its business journey the company encountered several problems, starting with a revenue gap where the company experienced a decrease in revenue, inefficient operating costs seen from the BOPO ratio above 80% each year and which the last is the value gap problem, namely the value gap such as

delivery time.

From the results of mapping the main components of the business model that is being run by the company with the perspective of 360° Business Model Innovation, so far it has been running quite well, although there are several weaknesses in the components of the business model. The results showed that the total IFE matrix score was 1.63 and the EFE matrix score was 1.93. The results show that the company's position is in quadrant I, namely high market growth and strong competitive position. According to David et al. (2016) that companies located in quadrant I of the grand strategy matrix are in a good strategic position. Continuous concentration on the current market, companies can penetrate the market, market development, product development and product diversification can reduce risks due to narrow product lines is the appropriate strategy. Companies in quadrant I can take advantage of external opportunities in several areas and take risks aggressively when necessary.

From the research results, the following is the improvement of the business model in the value creation component, companies can create ICT solutions that have the characteristics of core competencies, for example increasing capacity in radio transmission systems to support the 5G network. In relation to the plan, the company's value proposition component can implement a strategy in determining the pricing model, namely value-based-performance. In the value delivery component, companies can strengthen relationships with partners equipped with special clauses to avoid trust issues and can optimize control over device delivery and implementation with the GTS application. Value capture in the company's revenue model can be complemented by a recurring income model so that the company's business can be sustainable. In value communication, the company can optimize the dedicated sales force in establishing communication/ engagement by creating a communication forum and workshop on a regular basis.

Recommendations

Referring to the managerial implications suggested by the author, the company can carry out strategic implications that are best suited to the company's internal and external conditions so that the company can quickly adapt to a dynamic business environment.

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