

**NAVIGATING SERVICE INNOVATION: INVESTIGATING THE
STAGES OF INNOVATION PROCESS IN TELECOMMUNICATION
INDUSTRY**

AN INTERNSHIP REPORT

**Presented as Partial Fulfillment of the Requirements
to Obtain the Bachelor Degree in Management Study Program**



By

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FACULTY OF BUSINESS AND ECONOMICS
UNIVERSITAS ISLAM INDONESIA
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A BACHELOR DEGREE INTERNSHIP REPORT


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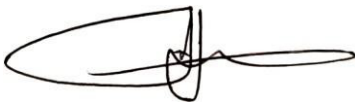
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DECLARATION OF AUTHENTICITY

DECLARATION OF AUTHENTICITY

Hereby I states that in this internship document there are no works that have been submitted by other people to obtain a bachelor's degree in a university, and to the best of my knowledge there are also no works or opinions that have been written or published by other people, except those that are written in reference, in this manuscript and mentioned in the Ref. If it is proven that this statement is not true, I am capable of receiving any punishment/sanction according to the applicable provisions.

Yogyakarta, April 25, 2024



Difa Dhea Fiva

PREFACE

All praise and gratitude are extended to Allah SWT for bestowing His mercy, guidance, and blessings upon the author, enabling the smooth completion of the internship report titled "Navigating Service Innovation: Investigating the Stages of Innovation Process in the Telecommunication Industry" to partially fulfill the requirements for obtaining a Bachelor's Degree from the International Undergraduate Program in Management, Faculty of Business and Economics, Universitas Islam Indonesia.

The researcher realized that this writing process would not have been possible without the support of those involved throughout the preparation of this thesis. Therefore, the author would like to address appreciation to:

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ABSTRACT

Navigating Service Innovation: Investigating the Stages of Innovation Process in Telecommunication Industry

Difla Dhea Fiva

This research explored the stages of service innovation within the telecommunications industry, specifically examining PT Telkom Indonesia Datel Temanggung. Using a qualitative approach that included observation and interviews with five employees, the research identified a six-stage process for service innovation: opportunity identification, idea management, concept development, pilot test, launch, and learning. The results highlighted significant challenges faced during the innovation process and emphasized the importance of customer involvement. Additionally, service innovation at PT Telkom had crucial managerial implications, requiring careful evaluation to ensure profitability and customer satisfaction. Managers must navigate the innovation timeline to balance stakeholder impact and avoid employee burnout. Phased rollouts and targeted marketing were recommended strategies to keep customers informed and engaged throughout the innovation process.

Keywords: Telecommunication Industry, Service Innovation

ABSTRAK

Navigating Service Innovation: Investigating the Stages of Innovation Process in Telecommunication Industry

Difla Dhea Fiva

Studi ini mengeksplorasi tahap-tahap inovasi layanan dalam industri telekomunikasi, secara khusus mengkaji PT Telkom Indonesia Datel Temanggung. Dengan menggunakan pendekatan kualitatif yang mencakup observasi dan wawancara dengan lima karyawan, penelitian ini mengidentifikasi proses enam tahap untuk inovasi layanan: identifikasi peluang, manajemen ide, pengembangan konsep, uji coba, peluncuran, dan pembelajaran. Hasil penelitian menyoroti tantangan yang signifikan yang dihadapi selama proses inovasi dan menekankan pentingnya keterlibatan pelanggan. Selain itu, inovasi layanan di PT Telkom memiliki implikasi manajerial yang krusial, membutuhkan evaluasi yang hati-hati untuk memastikan keuntungan dan kepuasan pelanggan. Para manajer harus mengatur timeline inovasi untuk menyeimbangkan dampak pemangku kepentingan dan menghindari kelelahan karyawan. Peluncuran bertahap dan pemasaran yang ditargetkan direkomendasikan sebagai strategi untuk menjaga pelanggan tetap terinformasi dan terlibat sepanjang proses inovasi.

Kata kunci: Industri Telekomunikasi, Inovasi Layanan

CHAPTER I

INTRODUCTION

1.1 Company Profile

PT Telkom Indonesia (Persero) Tbk, known as Telkom, is an Indonesian business owned and controlled by the Indonesian government. It is responsible for the nation's Information and Communication Technology (ICT) services and telecommunications networks. This business falls under State-owned Enterprises of the Republic of Indonesia (BUMN). The government of the Republic of Indonesia is the largest shareholder in Telkom, holding 52.09% of the firm's shares. The general public is the second largest shareholder, with 47.91% of Telkom's shares (Telkom, n.d.). Shares of Telkom are traded on the New York Stock Exchange (NYSE) using the ticker symbol "TLK," while they are listed on the Indonesia Stock Exchange (IDX) using the ticker symbol "TLKM."

TelkomGroup is in the process of transitioning into a digital telecommunications firm. As part of that endeavor, the company implements a business and operational strategy centered on the customer. This strategy places the customer at the center of business and operational decisions. Due to this transformation, the TelkomGroup organization will be able to adapt to the rapid shifts that are taking place in the telecommunications sector in a manner that is both more effective and more

quickly. It is hoped that the new organization will improve the level of efficacy and efficiency with a high-quality customer experience delivered.

Even though TelkomGroup's commercial activities are expanding and transforming in pace with developments in technology, information, and digitalization, these activities are nevertheless positioned within the context of the telecommunications and information industries. This may be shown by the fact that the business line that works with the existing legacy continues to develop and broaden its scope. Now, no rivals that can fight with the presence of PT Telkom Indonesia, making it the most successful and largest telecommunications firm in Indonesia.

Telkom, from now on, divides its business into 3 Digital Business Domains:

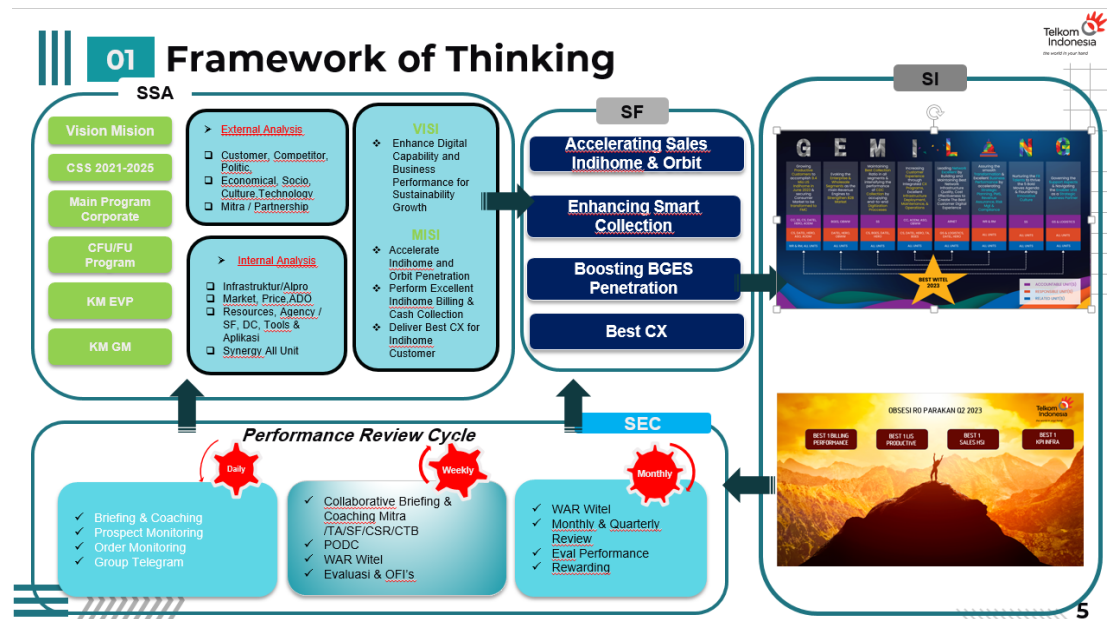
1. Digital Connectivity: Fiber to the x (FTTx), 5G, Software Defined Networking (SDN)/ Network Function Virtualization (NFV)/ Satellite
2. Digital Platform: Data Center, Cloud, Internet of Things (IoT), Big Data / Artificial Intelligence (AI), Cybersecurity
3. Digital Services: Enterprise, Consumer

PT Telkom Indonesia has many branches scattered throughout Indonesia. One where the researcher carried out the internship program, specifically in Datel Temanggung, particularly in the Representative Office (RO) Parakan area. The number of employees in Datel Temanggung is 73 people, and the services offered are as follows:

1. Home Service (Indihome, Orbit).
2. Enterprise (SME Solution, Enterprise Solution, Government Solution).

3. Wholesales (Network Connectivity, Unified Communications, Cloud & Data Center, and Managed Service).

The number of users or customers in the Representative Office of Parakan area reached 6,566 households as of January 1, 2023, covering approximately 9 (nine) districts, namely Ngadirejo District, Kledung District, Tretop District, Gemawang District, Jumo District, Candiroto District, Kedu District, and lastly Bansari District.



Source: Telkom Temanggung, 2023

Figure 1. Framework of Thinking Telkom Indonesia

1.2 Background

All sectors of the economy and all regions of the world are engaged in service innovation. This relates to service companies, yet product-based businesses are equally capable of developing advances in the service sector. Service innovation is a change in how customers are serviced, resulting in more income for the company and increased

customer value (Shields, 2022). A firm may be able to boost its income by introducing a new service innovation. This could result from existing customers spending more money, an improved positive image of the company, referrals, and other factors.

Integrating innovative techniques into a company's range of services offers an important and long-lasting opportunity for achieving a competitive edge (Durst et al., 2015). Reinartz and Ulaga in Durst et al. (2015) proposed that strategically, exploring service-oriented projects can be crucial for organizations to overcome the difficulties of sustaining growth in competitive marketplaces. Moreover, these service models are advantageous in efficiently addressing challenges arising from the competition of products and services. Through the implementation of ongoing service innovation, organizations establish themselves to effectively respond to changes in the market, distinguish their products or services, and maintain a competitive advantage in the long run.

Active participation of customers in the process of service innovation is indispensable, given that customers represent the primary beneficiaries of the service. Engaging customers in the strategic planning of a company's service innovation, especially with a heightened level of involvement, plays a pivotal role in enhancing the company's comprehension of customer needs. As highlighted by Firdaus et al. (2021), this heightened engagement empowers the company to create truly innovative service offerings aligned with the evolving demands and expectations of the customer base.

The significance of this customer-centric approach is further underscored when customers perceive that the value derived from the service surpasses their initial

expectations (Firdaus et al., 2021). This positive experience of exceeding anticipated value leads to customer satisfaction. Customer satisfaction is a dynamic and essential element in creating and sustaining a satisfied customer base. Consequently, companies that actively involve customers in the service innovation process and consistently deliver value beyond expectations are better positioned to foster enduring customer satisfaction, loyalty, and positive brand perceptions.

PT Telkom, usually referred to as Telkom Indonesia, is a leading telecommunications company in Indonesia, offering a wide range of services, including landline, mobile, web, and data solutions. PT Telkom is now investigating the implementation of a digital operations model that aligns with its strategic vision. This strategic project aims to fully incorporate diverse digital technologies and capabilities into its operating structure.

The proposed digital operations model represents a significant achievement for PT Telkom, placing the company at the forefront of technological progress in the telecoms sector. PT Telkom seeks to optimize operational efficiency, improve customer experiences, and increase service delivery across its wide range of offerings by adopting digital transformation. Anticipated benefits of implementing advanced technologies include streamlining procedures, optimizing resource use, and promoting a more agile and responsive organizational structure.

PT Telkom's choice of adopting a digital operations model demonstrates its dedication to ongoing innovation. This proactive strategy is intended to address the changing needs of the telecoms sector and actively influence the industry's future. PT

Telkom aims to utilize digital technology to develop and provide services that surpass customer expectations.

The primary goal of this digital transformation is to deliver concrete benefits to PT Telkom's customer base. The organization aspires to improve the quality, accessibility, and customization of its services by utilizing innovative digital technologies. Furthermore, this strategic transition towards a model that prioritizes digital platforms is in line with PT Telkom's primary objective of promoting consistent and long-lasting increases in income. The expected advantages encompass enhanced market competitiveness, a broadened range of services, and the capacity to leverage emerging opportunities in the digital ecosystem.

PT Telkom's implementation of a digital operations model is a proactive response to the ever-changing telecommunications industry. This move demonstrates their dedication to innovation, customer focus, and long-term financial sustainability. As the company begins this revolutionary journey, it positions itself as a pioneer in the quest for excellence within the constantly changing digital telecoms industry.

Further research is required to comprehensively examine PT Telkom's application of service innovation, considering the company's pioneering role in this area. This research presents an analysis of the initiatives undertaken by PT Telkom to improve service innovation, along with the challenges faced in implementing these initiatives. Another crucial factor in the service innovation process is the involvement of customers, as their degree of satisfaction is a key indicator of the success of the innovation.

1.3 Research Question

In the service innovation stage, Telkom faces a specific challenge. The following is the specific issue that will be discussed in this internship report:

1. How does the company go through the stages of innovating its services?

1.4 Internship Purpose

To the research question that has been elaborated above, the specific objective of this internship report is:

1. To describe how the company goes through the stages of innovating its services.

1.5 Internship Benefits

The adoption of this internship program has several advantages that are beneficial to the various parties involved, including the following ones:

A. For Students

1. Increase students' understanding by having them apply the concepts they have studied to the actual workplace.
2. Expand the network.
3. Learn and experience the professional attitude required in the global profession.

B. For University

1. Establish a productive partnership or working relationship between the University and the business where the student is participating in an internship.

2. Through participation in internship programs, colleges and universities can increase the overall caliber of their graduates.
3. The industrial community will have a greater familiarity with the university.

C. For Institution

1. Students who participate in practical work will provide the company with additional work assistance.
2. Due to the obvious strong cooperation and partnership between the university and the corporation, the latter is well-known within the academic and international education communities.
3. Using the internship reports provided to the company, some do audits without incurring costs.

CHAPTER II

LITERATURE REVIEW

2.1 The Concept of Innovation

Innovation comprises various activities focused on promoting progress and advancement within an industry or institution (Sengupta, 2013). Innovation, whether achieved through introducing new methods, inventing original products, or adopting organizational improvements, always aims to stimulate beneficial transformation and promote expansion. This complex phenomenon appears in different ways, each with the main goal of either lowering costs per unit or increasing market demand, occasionally doing both at the same time. Innovation is present in all aspects of corporate operations, ranging from small changes to significant advancements. It drives organizations to become more efficient, competitive, and sustainable in a constantly changing industry.

Integrating new ideas and technologies within companies is a key notion that tremendously impacts their operations, energy, and long-term survival. This significance is especially evident in the current era, marked by intense competition and a constant focus on developing human resources. Organizations are driven to fully embrace the premise that human creativity is essential to innovation process. In order to do this, it is essential to develop a culture based on a specific set of values and ideas that actively promote creativity and innovation (Al-Louzi, 2019). By placing a high

importance on adopting new and innovative ideas, companies not only ensure their continued relevance and ability to compete but also create opportunities for significant developments and progress that benefit the broader socio-economic environment.

2.2 Service Innovation

Service innovation is a crucial element of contemporary corporate strategy. It includes creating and executing new or improved services to fulfill changing customer needs, boost competitiveness, and foster organizational expansion. Recognizing the fundamental principles that support service innovation is essential for companies seeking to successfully navigate rapidly changing market environments. Service innovation is often characterized by its intangible nature, which focuses on creating value through connections, experiences, and solutions rather than manufacturing physical commodities. Service innovation, as defined by Gallouj and Weinstein (1997), refers to the implementation of novel concepts, approaches, or remedies to address both new and established customer requirements, resulting in the generation of value.

The process of service innovation involves a series of progressive steps, including identifying opportunities, generating ideas, developing concepts, designing and prototyping the product, testing and validating it, and finally launching it (Helmer et al., 2021). Gallouj and Weinstein (1997) stated that service innovation is characterized by applying new ideas, processes, or solutions to satisfy customer demands and produce value. This highlights the continuous and customer-centric aspect of the process for service innovation. Randhawa and Scerri (2015)

comprehensively analyze the service innovation process. They highlight the importance of consumer engagement, collaboration across different departments, and adaptability to achieve successful innovation results.

2.2.1 Service Innovation Stages

The initial stage in the service innovation process usually identifies opportunities. This entails companies comprehensively assessing the external environment, analyzing market trends, and acquiring insights into evolving customer desires and preferences (Helmer et al., 2021). After identifying opportunities, businesses generate ideas and build concepts to transform those opportunities into concrete service concepts. In this stage, it is crucial to foster creativity and teamwork. Obtaining customer input and incorporating diverse perspectives from the team are vital in generating novel ideas and fostering innovation (Toivonen & Tuominen, 2009).

Service design and prototyping encompass the transforming service concepts into comprehensive specifications and prototypes. Gallouj and Weinstein (1997) contend that service design should prioritize optimizing the customer experience, defining service procedures, and aligning with organizational goals and brand values. During the subsequent phase, companies assess the feasibility and attractiveness of novel service offerings by conducting pilot programs, beta testing, or simulation exercises. Vargo and Lusch (2004) propose that customers should be actively engaged in testing and validating

service concepts. They highlight the significance of co-creation and progressive feedback cycles in improving these concepts.

After successfully validating, the company launches innovation. However, this effort mainly concentrates on marketing and disseminating innovation to a broader audience rather than directly involving the innovation process (Eveleens, 2010). The learning process continues after the launch process. The company will evaluate the value of the implemented innovation (Eveleens, 2010). Customer evaluations can determine the success or failure of an innovation. The company will continue to improve, and this innovation process will become a cycle.

2.2.2 Service Innovation Challenges

Service innovation sometimes entails numerous constraints spanning organizational challenges to market concerns. Toivonen and Tuominen (2009) highlight significant concerns, including resources limitations, resistance to change, and challenges in evaluating market demand. They stress the importance of employing proactive management techniques and fostering cross-functional collaboration to conquer these obstacles.

One of the most significant obstacles that must be overcome during the service innovation process is identifying pertinent opportunities for innovation. Organizations may frequently face challenges when recognizing emerging customer wants, market trends, and technological improvements. To recognize

and capitalize on opportunities for service innovation, businesses need to implement open innovation practices, which involve working with external partners and utilizing external knowledge sources (Chesbrough & Rosenbloom, 2002). Generating and cultivating novel concepts for new services can be challenging and necessitates creativity, collaboration, and perspectives from diverse academic and occupational domains. To foster an environment where employees are encouraged to share ideas and question established norms, it is crucial to create a welcoming workplace culture that promotes the exploration of new concepts and experimentation (Murray & O'Mahony, 2007).

An important challenge that services innovation projects may face is organizational resistance to change. Employees may resist new ideas, methods, or technology due to fear of the unfamiliar, apprehension about job stability, or reluctance to break from established habits. Kotter and Schlesinger (2008) proposed strategies for managing opposition to change. They emphasize the importance of communication, employee engagement, and leadership endorsement in overcoming resistance and fostering an innovative culture. To overcome these difficulties and utilize the most effective methods described in existing research, companies can better navigate the process of service innovation. This will lead to successful results and the attainment of a lasting competitive advantage in today's rapidly changing business landscape.

2.2.3 Customer Engagement

For enterprises to get insights, co-create value, and improve service offerings, customer interaction is crucial to the service innovation process. An approach to logic proposed by Vargo and Lusch (2004), known as service-dominant logic (S-D logic), highlights the significance of customer engagement in generating innovation by emphasizing the co-creation of value through collaborative interactions between service providers and customers. The transfer of value does not occur directly from the supplier to the buyer, but rather, it is collaboratively created through mutual engagement, knowledge sharing, and mutually beneficial exchange. This emphasizes the crucial importance of customer engagement in driving service innovation.

To create creative products that appeal to their target audience, Companies can gain significant insights into consumer demands, preferences, and pain points through customer engagement to create creative products that appeal to their target audience. Prahalad and Ramaswamy (2004) argued for a change from product-centric to customer-centric innovation, stressing the significance of incorporating customers at every stage of the process to ensure that offers are in line with consumers' changing expectations.

Enhancing customer engagement allows organizations to acquire a deeper understanding of customer preferences and effectively tailor their service offerings to meet the specific needs of individual customers. Customer engagement with the service enhances the probability of customers giving

feedback, participating in service co-production, and contributing to efforts aimed improve service quality (Gronroos, 2008). Customers are more likely to feel valued and appreciated for their contributions when they are allowed to participate in the service innovation process. This, in turn, creates long-term relationships and promotes brand loyalty. An article written by Füller et al. (2009) discussed the role that customer engagement platforms play in constructing brand communities, encouraging connection, and co-creating value, which eventually results in increased customer satisfaction and loyalty.

2.3 Characteristics of Telecommunication Industry

The study done by Clo et al. (2020) investigated the innovation investments of state-invested enterprises (SIEs), focusing on the telecommunications sector. Despite the trend of privatization, SIEs remain influential in various industries, including telecommunications. The research aims to compare the innovation capabilities of SIEs and private firms, using patenting activities as a metric. Additionally, it examines how the quality of institutional frameworks influences the relationship between ownership type and innovation. Analyzing data from 706 telecom companies across 91 countries from 2007 to 2015, the study finds a positive correlation between public ownership and patenting activity. It also reveals that SIEs show stronger innovation performance in nations with robust institutional frameworks, emphasizing the importance of governance structures and institutional quality in fostering innovation. Overall, this research sheds light on the role of SIEs as potential catalysts for innovation,

highlighting the significance of institutional environments in shaping their effectiveness.

Process innovations are crucial in the telecommunications industry, as they are essential for achieving and maintaining a competitive advantage. Empirical evidence supports the claim that there is a statistically significant connection between process innovation and competitive advantage in the telecoms industry in Kenya (Mugo & Namada, 2020). The results emphasize the necessity for the telecommunications industry to prioritize the creation and execution of inventive procedures that produce the best possible outcomes while also embracing novel technologies to stimulate innovation. Telecommunication organizations can improve their operational performance and stand out in a highly competitive industry by carefully improving their workflows, making processes more efficient, and utilizing advanced technologies. Furthermore, by strategically incorporating process innovations, organizations may quickly adapt to changing market conditions, take advantage of new possibilities, and strengthen their competitive position in the market.

2.4 Conceptual Framework

This research focused on examining PT Telkom's service innovation. The research examined the stages of service innovation and its obstacles. This also includes the substantial role that customers play in the service innovation process, and the

attainment of customer satisfaction is the ultimate result of this process of innovation.

An illustration of the conceptual framework is presented in the following scenario.

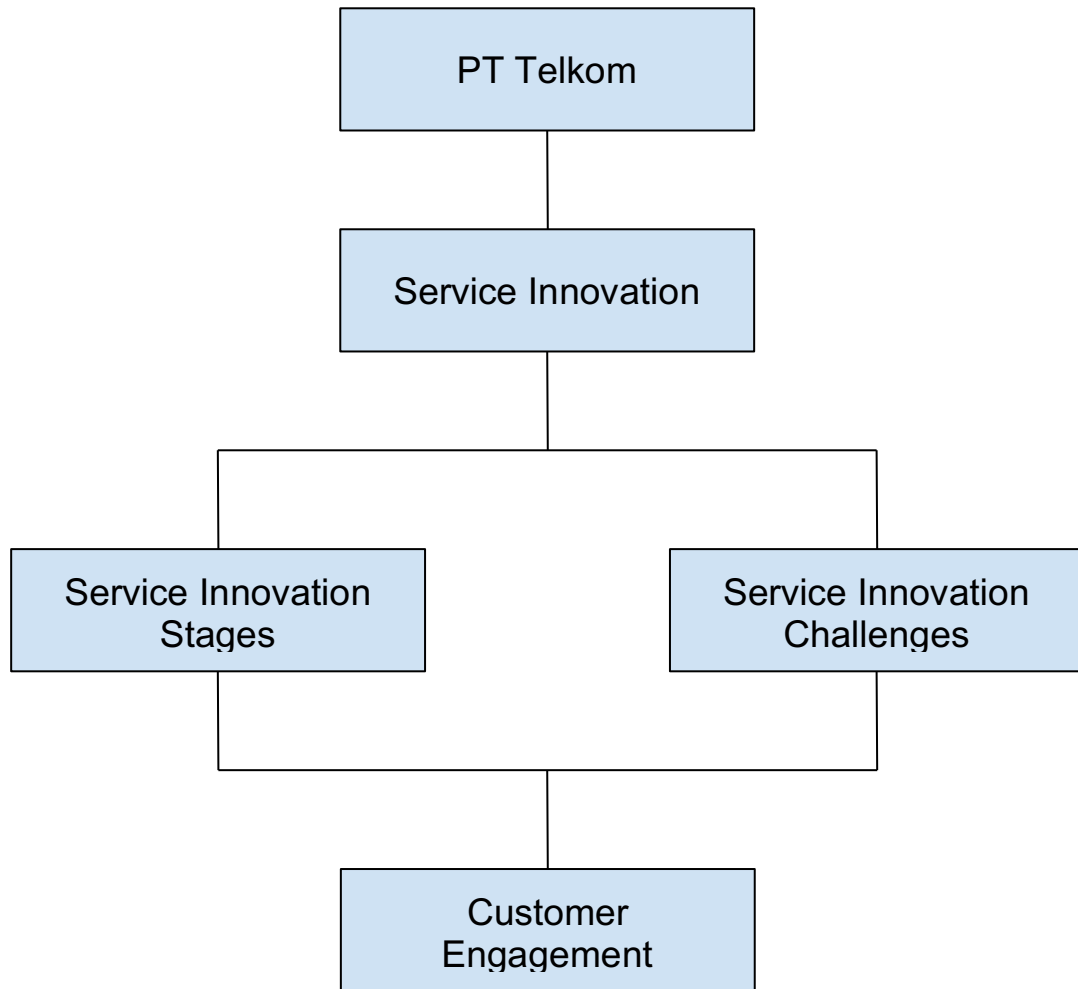


Figure 2. Conceptual Framework

CHAPTER III

RESEARCH METHOD

3.1 Approach

This research applies a qualitative approach. According to Denzin and Lincoln in Anggito & Setiawan (2018), qualitative research is a study that makes use of natural settings to analyze phenomena that occur and is carried out by involving a variety of methods that are already in existence. According to Erickson in Anggito & Setiawan (2018), qualitative research aimed to identify and explain in a narrative fashion the activities carried out and the influence that the acts carried out have on the lives of the individuals involved.

Qualitative methods were used to examine how PT Telkom carries out service innovation in this inquiry. Besides that, descriptive analysis was used in this research to offer a detailed overview of the subjects investigated. Descriptive analysis is used to present and summarize data descriptively. The goal is to comprehensively and precisely representing the presented facts (Sprinthall, 2011).

3.2 Unit of Analysis

One key factor to consider is the unit of analysis, which refers to the individuals or objects pertinent to the research. The research identified competent parties as those directly interested in the studied phenomenon, such as program participants, organizational personnel, or members of associated communities (Yin, 2014). The unit

of analysis in this research was the employee of PT Telkom, which was located in Datel Temanggung. The employees frequently work in the field and deeply understand the company's operations. The number of employees interviewed was 5, with different positions.

3.3 Data Collection Method

The main goal of this research is to collect information and the method used to get information is a crucial aspect of this research. Qualitative research involves collecting data through participant observation, in-depth interviews, and document analysis (Creswell, 2013). These strategies are used to understand the topic under investigation thoroughly. The main goal of data collecting in research is to gather the necessary information to answer research questions systematically and truthfully (Neuman, 2014). The research was conducted by observing the surroundings and work practices of researchers participating in the PT Telkom internship program. The research involves conducting in-depth interviews with research subjects who were part of the service innovation process within the organization.

3.3.1 Observation

The method of obtaining data through direct observation of behavior, circumstances, or occurrences, without any intervention or influence from researchers, is called observation (Creswell, 2013). The internship report indicates that the researcher actively participated in the work practices within the Operational Management division. The researcher conducted several duties

and made observations in the Operational Management section of the Representative Office (RO). The internship involved observing the company's customer interactions, identifying products according to customer needs, recognizing customer issues, and creating innovative services for consumers in the Representative Office (RO) unit.

3.3.2 Interview

During the interview, information is gathered through direct questioning and recording of responses to respondents' concerns. Interviews involve participants and researchers engaging in direct, in-person communication to collect data (Zikmund & Babin, 2010). Interviews yield comprehensive and detailed information that can enhance comprehension, reveal the complexity, and produce insights into an examined topic. By employing adept asking techniques and attentive listening, researchers can extract valuable responses from participants, enhancing the overall depth and quality of the research findings.

The subjects of this research were individuals from different positions who were active in the company's service innovation, such as the Head of Representative Office, Assurance Team Leader, Provisioning Team Leader, Caring Territory Base, and Assurance Technician Team Leader. This manual on conducting interviews comprised several listed questions that concern the company's service innovation implementation stages, the challenges

encountered during service innovation implementation, and customer engagement throughout the service innovation process. The complete list of interviewees may be found in the figure below.

Table 1 Research Interviewees

No	Name	Code	Position	Media of Interview
1.	Justin Sitohang	J1	Head of Representative Office	Direct Interview
2.	Ian Irawan	I2	Assurance Team Leader Telkom Akses Teritori Temanggung	Direct Interview
3.	Ahmad Areef Faeruzi	A3	Provisioning Team Leader Telkom Akses Teritori Temanggung	Direct Interview
4.	Hardianto	H4	Caring Base Territory Temanggung	Direct Interview
5.	Hanief Ananto	H5	Assurance Technician Team Leader	Direct Interview

3.4 Data Analysis

In this research, the data was analyzed using a descriptive analysis method. Descriptive analysis involves summarizing, organizing, and visualizing data in a relevant and informative way. This aims to provide a detailed and accurate overview of the properties, patterns, and trends in the examined data (Zikmund & Babin, 2010). Researcher can compare different groups or variables in the dataset using descriptive analysis. Analyzing data for similarities and differences allows researcher to draw significant findings and make rational decisions (Zikmund & Babin, 2010).

This research used descriptive analysis to describe the sequence of steps the company takes to adopt service innovation. In addition, it is utilized to identify any issues or difficulties that may develop during the creation process. The data that is utilized will outline how customers get involved with the process of service innovation.

CHAPTER IV

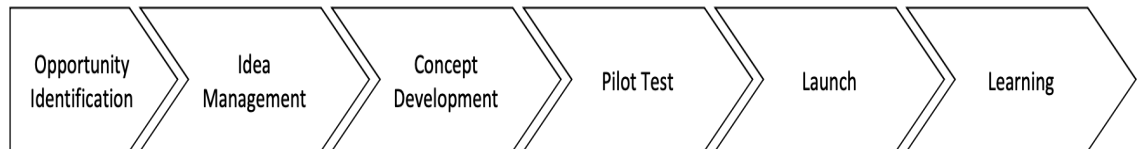
RESEARCH FINDINGS AND DISCUSSION

This chapter comprehensively discusses all research findings, including data collection and subsequent conclusions. The results of this research were analyzed and extensively examined to explain their importance. Furthermore, the data was compiled by employing direct observation and conducting interviews.

4.1 Findings

PT Telkom Indonesia enhanced the quality of its customer service by always employing the most efficient methods and minimizing resource expenditures. The industry faced various challenges but actively used continuous innovation to tackle these problems. The fundamental measure of success was the level of customer satisfaction. All employees of PT Telkom Indonesia had the chance to improve the company's services to meet its customers' demands more effectively. Innovation transcended the confines of firm leadership. The service changes that were introduced often draw inspiration from the requirements of the local branch.

PT Telkom underwent a series of steps, starting from the initial phase to carry out the service innovation process. The figure below illustrates the process that a company undergoes to innovate.



Source: Telkom Temanggung, 2023

Figure 3. Service Innovation Stages in Telkom

4.1.1 Opportunity Identification

One of the most important stages in service innovation was called opportunity identification. This step entailed discovering areas where innovation might solve unmet requirements, create value, and improve customer experiences. Innovative ideas can emerge from several sources. This might be attributed to internal factors, such as optimizing operational procedures and implementing innovative technological advances. In addition to that, other factors drove organizations to innovate, such as problems presented by customers, which required the creation of solutions.

Innovation arises from a company's aspiration to enhance internal systems or processes to boost production and improve service quality. Implementing innovative technology or creating in-house digital apps or

platforms was an instance of corporate innovation aimed at enhancing performance, communication, or collaboration across different departments. Furthermore, numerous prospects or concepts for advancement were issues or grievances voiced by customers. Several respondents had similar sentiments, as evidenced by the table below.

Table 2 Interviewees Answers Regarding Opportunity Identification

No.	Respondents	Answers
1.	J1	Problems arising from customers, such as the extensive geographical coverage that sales teams cannot reach, necessitate the company to employ innovative strategies for implementing digital marketing. Furthermore, the issue of delays in satisfying customer requests for product installation has prompted enterprises to develop internal applications for their personnel. These applications enable employees to coordinate their responsibilities and enhance service efficiency.
2.	I2	Any harm caused to the production equipment would directly impact the customer's installation. As a result,

		the company has been compelled to innovate to ensure uninterrupted internet connections for customers. The maintenance division mostly achieves this by implementing proactive measures, such as regular inspections of production equipment.
3.	H5	The classification of innovation depends upon the problems encountered during fieldwork. Upon identifying the problem, the company assesses its innovation to ensure that customers also experience a sense of comfort with our service. Innovation arises when we encounter challenges in a particular domain.

Source: Employees of Telkom Temanggung, 2023

4.1.2 Idea Management

Once a concept was identified, the subsequent stage in the service innovation process for the company determined how to implement and control such ideas effectively. Innovation management encompassed structured operations to handle ideas created during the innovation process effectively. The management of ideas in the innovation process referred to a systematic and organized approach to gathering, overseeing, assessing, and executing ideas related to innovation. Innovation encompassed the creation, advancement, and

execution of novel concepts that can enhance an organization's offerings, services, or procedures.

Idea management sought to maximize the capacity for originality and novelty within a company by promoting cooperation, evaluation, and advancement of the most favorable concepts. It entailed utilizing various tools and methodologies, such as digital platforms, brainstorming sessions, and feedback mechanisms, to foster the active engagement of team members or stakeholders. The concept of idea management in the innovation process focused on facilitating and overseeing the flow of ideas that result in beneficial transformation and advancement inside the company. Several respondents had similar sentiments, as evidenced by the table below.

Table 3 Interviewees Answers Regarding Idea Management

No.	Respondents	Answers
1.	J1	The company can determine the problem using the 5W+1H writing approach, which will lead to identify the problem and its corresponding solution. To facilitate the process, PT Telkom typically conducts small-scale workshops to encourage employees to engage in brainstorming sessions. The outcome of such initiatives

		is primarily service innovation.
2.	A3	Innovation can be derived from either team leaders or directly from field technicians. Regular morning briefings are typically conducted to assess innovation. Here, all innovative ideas will be considered and evaluated, and the most crucial invention will be selected based on its ability to overcome nearly all obstacles.

Source: Employees of Telkom Temanggung, 2023

4.1.3 Concept Development

Concept development was an essential stage in the company's service innovation process. Specifically, chosen ideas were developed during this stage into more precise and detailed concepts. Participation from customers was essential at the initial stage of concept development because most ideas for innovations were derived from the input that customers supplied. At this point, the company identified and gained an understanding of the customer demands, challenges, and preferences that the proposed new service intended to either address or fulfill.

The continuation of brainstorming was also included in this step. Following identifying the most urgent problem that needed to be fixed, an

appointment was made for the person in charge of the most qualified individual to carry out this innovation process. Each specific issue was taken into consideration while selecting the person who would be in charge of the situation. The respondents' statement is in the table below.

Table 4 Interviewees Answers Regarding Concept Developments

No.	Respondents	Answers
1.	J1	Following the mini-workshop, the company will designate a person in charge (PIC) to address and resolve each problem. The problem can be identified by utilizing the 5W+1H technique, after which the company can devise a solution to address the issue. The timeline for each innovation project is chosen based on the urgency associated with each current problem.
2.	I2	Customer involvement in this innovation process is through the feedback they provide. The company will usually make direct visits to customers to ask how the company is performing, what complaints they have, and what they want for the company so that the level of customer satisfaction continues to increase. Sometimes,

		a visit like this does not have to be made, but customers have complained about what they have experienced.
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Source: Employees of Telkom Temanggung, 2023

During the concept of development stage, the company encountered many barriers or challenges in its efforts to create precise and targeted innovations. Some of the respondents indicated this, as depicted in the table below.

Table 5 Interviewees Answers Regarding Challenges in Concept Development

No.	Respondents	Answers
1.	J1	The primary obstacle to developing innovation is the need for more time. Employees will face challenges balancing their time between regular daily tasks while working on this innovation.
2.	H4	One main challenge in developing innovation is the financial burden associated with supporting innovation. The allocated budget is occasionally restricted, necessitating precise and careful budget adjustments.

Source: Employees of Telkom Temanggung, 2023

4.1.4 Pilot Test

Once the concept had been effectively formulated, the subsequent step was to conduct small-scale trials as part of the service innovation process. During this phase, an innovation prototype underwent testing before its official launch. This stage was crucial as it allows for collecting feedback from all parties concerned. In addition, the developers will make necessary modifications at this stage before implementing the results of this invention in the broader operational context.

Pilot testing often involved only a selected group of the intended user base. The primary objective of this stage was to acquire validation of the concept being developed and identified potential issues before launch. Subsequently, the feedback obtained from the pilot test was utilized as a part of an endeavor to enhance the innovation before its formal debut. The respondent's statement is in the table below.

Table 6 Interviewees Answers Regarding Pilot Test

No.	Respondents	Answers
1.	J1	PT Telkom conducted an "AB Testing" test during the testing phase. The approach involves comparing two samples, A and B, under different situations and analyzing the impact of the influence of the upcoming

		<p>innovation prototype. If there are any subsequent barriers or issues, the input obtained from this testing can be utilized to enhance and refine the process. Not all service innovations need to include direct contact with customers. This particular invention is designed exclusively for internal usage, aiming at enhancing employee service to customers. The parties participating in this testing can consist of prospective customers or internal companies only.</p>
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Source: Employees of Telkom Temanggung, 2023

4.1.5 Launch

During the launch stage, most actions were mainly focused on marketing. At this point, the innovation had completed the testing phase and prepared for implementation. The outcomes of innovation were prepared to be distributed to a broader audience. The company was prioritizing the introduction of innovations to customers. Customer assessments in this stage were of the utmost significance and consistently monitored by the company. The company continues to conduct satisfaction surveys to assess the quality of its customer service. According to the respondent, it is indicated in the following table.

Table 7 Interviewees Answers Regarding Launch

No.	Respondents	Answers
1.	J1	Following the implementation of the innovation, the company surveyed customers to obtain their feedback. PT Telkom has a program called Voice of Customer, allowing customers to express their comments about our services. At this stage, criticisms will resurface and further innovation will be required, as this company operates in a cycle of innovation.

Source: Employees of Telkom Temanggung, 2023

4.1.6 Learning

Following the completion of the launch process, the company proceeded to the final phase of innovation, known as the learning process. At this point, the company gathered feedback from customers who had directly experienced the outcomes of the recently introduced innovation. The company gathered and evaluated customer feedback to comprehend the response to this innovation in the market. By embracing customer feedback and analyzing market performance, the innovation can be enhanced and optimized to satisfy customer demands and match their expectations more effectively. This could involve adjusting the product, service, or business model. The respondents' statements can be seen in the table below.

Table 8 Interviewees Answers Regarding Learning

No.	Respondents	Answers
1.	J1	We will conduct a review after each last stage of the company's innovation. This review focuses on the performance of the launched innovations and their impact. The basic concept is that the company strategically plans, executes, evaluates, and takes action, which will consistently drive our business processes.
2.	A3	The company assesses employee performance by measuring customer satisfaction. Following the implementation of the innovation, customers will be requested to provide feedback on their level of satisfaction with the employees' performance and their satisfaction with the innovation itself.
3.	H4	Upon completing the innovation launch process, the company will evaluate the profitability of the innovation. This encompasses the process of reproduction, whereby if the innovation proves to be financially viable, it will be continued. Conversely, if

		will naturally be discontinued if it fails to generate profit.
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Source: Employees of Telkom Temanggung, 2023

Throughout learning, the company encountered various challenges. Some competitors provide identical services to what this company offers its customers. The company needs to prioritize to the quality of its services to stay ahead of its rivals. Another challenge in this innovation process was the need for more customer awareness regarding the technological advancements associated with the innovation provided by this company. The company should educate customers with little understanding of available advances to maximize their utilization of the given services.

Table 9 Interviewees Answers Regarding Challenges in Learning

No.	Respondents	Answers
1.	I2	When innovation is launched, we can discover that competitors offer precisely the same services we provide to customers. This company is very dependent on customers; therefore, we have to ensure that the quality of the service we provide is very satisfying to

		customers so that customers do not switch to our competitors.
2.	H5	A challenge that develops while introducing innovation is the presence of customers who need to be adequately informed or are resistant to being informed about service updates implemented by this company. Occasionally, specific customers get excessively comfortable with the company's services before any advancements or improvements. This occurs due to the presence of specific customers who need help comprehending technological advancements. Nevertheless, the obstacles encountered in this area are proportionally insignificant due to the small percentage involved.

Source: Employees of Telkom Temanggung, 2023

4.2 Discussion

During the internship, the researcher was actively involved in a project aimed at enhancing the company's innovation efforts. Specifically, the researcher focused on creating a WhatsApp Bot for the Parakan Representative Office (RO). This innovation was intended to streamline and improve communication between employees and customers at the branch, ultimately aiming to enhance the overall service quality. The

researcher took on the task of developing this communication tool as part of the internship responsibilities.

The implementation of the WhatsApp Bot was seen as a pivotal step towards modernizing the branch's customer service operations, ensuring more efficient and effective interactions. Throughout this process, the researcher gained valuable experience in developing digital communication solutions, contributing significantly to the company's innovative initiatives during their internship.

The process of creating the WhatsApp Bot began with addressing the issues faced by customers who struggled to find information about services from PT Telkom. This often required them to visit the office in person, which was inefficient and inconvenient for both the customers and the company. Recognizing the need for a more effective solution, the company decided to innovate and improve its customer service quality by developing a WhatsApp Bot.

Once the idea was conceptualized, the execution phase began, and the researcher became an integral part of this project during the internship. The development process started with designing the conversation flow, ensuring it was intuitive and responsive to customer inquiries. This was followed by creating product displays tailored to meet customer needs, enhancing the overall user experience.

The researcher then moved on to the coding phase, where they programmed the automated conversation flow, ensuring the bot could handle various customer interactions seamlessly. This stage was crucial in making sure the bot functioned

correctly and efficiently. After the coding was completed, the bot underwent rigorous testing with the help of several staff members to identify and fix any issues.

Finally, after thorough testing and refinements, the WhatsApp Bot was ready for launch. The introduction of this innovative tool marked a significant improvement in the way customers interacted with PT Telkom, providing them with a convenient and efficient means of obtaining information and services without needing to visit the office in person. The researcher's involvement in this project during the internship not only contributed to the successful development of the WhatsApp Bot but also provided them with valuable experience in creating digital communication solutions.

Based on the internship experience, extensive observations, and comprehensive interview results, the following discussion provides a detailed analysis of the service innovation process at PT Telkom, the various challenges encountered during its implementation, and the critical role that customers played throughout this endeavor.

4.2.1 Service Innovation Stages

Based on data findings, PT Telkom's innovation process included several activities: opportunity identification, idea management, concept development, pilot test, launch, and learning. This was in line with research conducted by Helmer et al. (2021). It stated that the process of innovation process includes opportunity identification, creativity and idea management, concept development, service development, testing and validating pilot service, and the last one is launch. Other research presented by Eveleens (2010) also

stated that the process of innovation includes idea generation, selection, development and testing, implementation and launch, post-launch, and the last one is learning.

PT Telkom initiated the innovation process by first identifying potential opportunities. Opportunities for innovation arise from internal factors that necessitate optimizing its operations, or they could come from external sources, such as customer problems. Helmer et al. (2021) mentioned that the organization will gather customer insights or do market research throughout the opportunity identification phase. The objective was to comprehend customers' or users' requirements and challenges. According to another study conducted by Eveleens (2010), behaviors included in generating ideas include extracting ideas from internal and external company sources.

PT Telkom engaged in idea management activities as part of the second process of this innovation. A session was conducted to gather ideas for innovations that have emerged from the subsequent phase to coordinate and discuss selecting the most appropriate concept for implementation. In their study, Helmer et al. (2021) explained that the ideation phase encompasses the generation of ideas and the full scope of the decision-making process. According to Helmer et al. (2021), this stage aimed to choose the most suitable idea for the identified problem.

During the third step, PT Telkom engaged in concept development, wherein the selected concept from the previous stage was transformed into a

prototype. Customers played a crucial role currently as they were the primary source of emerging ideas and the organization gained valuable insights regarding customer complaints and needs during this period. At this stage, the individual accountable for the execution of the innovation project was also designated. According to a study conducted by Eveleens (2010), this stage of the project involved identifying the most qualified individuals to carry out the project and also involving users early on.

Following the development of the concept, PT Telkom proceeded to the fourth stage of innovation, the pilot test. Preliminary testing was conducted at this phase, involving a limited number of potential users. The feedback provided by users was utilized to make enhancements before the official introduction of the innovation. This remark aligned with the study conducted by Helmer et al. (2021), which asserted that the testing and validation procedure would entail direct testing of customers to obtain first-hand feedback from initial users.

After the testing and validation stage, PT Telkom launched its product to the broader public as the next step in its innovation process. At this stage, the company prioritized introducing its products or services to the market and marketing activities. In addition, a customer satisfaction survey was carried out to gather feedback that will be used to drive further innovation. According to Helmer et al. (2021), during the launch stage, the efforts were mainly directed

toward making a product or service available for sale and ensuring that the solutions provided were consistently validated.

The learning process was the final stage implemented by PT Telkom to facilitate innovation following the launch process. During this phase, the company assessed the advancements they had introduced. The organization evaluated customers' satisfaction and the innovation's effectiveness in addressing existing issues. Subsequently, the organization can identify any shortcomings in its service method, leading to a restart of the innovation process, thereby establishing a cycle of innovation. According to Eveleens (2010), the organization will conduct value analysis and evaluation throughout the learning stage.

4.2.2 Service Innovation Challenges

PT Telkom encountered several challenges in implementing service innovation development. During the concept development stage, one of the issues was the difficulty employees faced in managing their work time between routine activities and the innovation project. Another obstacle faced at this point was the constrained budget for innovation. According to Auer (2023), finance is necessary at every stage of the innovation process. Acquiring capital can provide challenges. Organizations must provide a strong business case for their innovation initiative to secure funding, demonstrating a return on investment (ROI). The inherent unpredictability of innovation poses a significant challenge

and results in substantial variations between projected business scenarios and actual outcomes.

PT Telkom encountered additional challenges along the course of learning. The presence of direct competitors offering identical services was a challenge for organizations in enhancing their innovation efforts. As stated by the OECD (2023), multiple competitors can result in a downward spiral in pricing, creating challenges for enterprises to distinguish themselves and sustain profitability.

Another challenge encountered was customer resistance to changes or innovations implemented by the organization. This was due to the presence of customers who possess a lower capacity to comprehend technological progress. According to Kotter & Schlesinger (2008), the key to implementing change is for organizations to prioritize communication and employee involvement. This will help them overcome resistance and cultivate an innovative culture.

4.2.3 Customer Engagement

Customers played a crucial part in the service innovation process at PT Telkom. Customer interaction was present in nearly every phase of the innovation process. The principle of co-creation was central to customer engagement, involving active customer participation in defining the direction and consequences of innovation activities. Organizations may optimize their decision-making and improve the effectiveness of their innovations by

promoting open communication and cooperation, which allows them to get valuable insights, preferences, and customer feedback. The Vargo and Lusch (2004) framework, called service-dominant logic (S-D logic), emphasized the importance of customer engagement in driving innovation. It focuses on the collaborative interactions between service providers and customers to co-create value.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusion

PT Telkom engaged in a sequence of actions to drive service innovation. The initial step was to identify opportunities, followed by idea management. Subsequently, concept development took place, followed by a pilot test. The next phase was the launch, and the last stage involved the learning process. Customer participation was a consistent aspect of nearly every process, as they contributed ideas and offered feedback to enhance the company's offerings. Several challenges were encountered during this innovation process, including time constraints, financial limitations, the rise of competition from rivals, and resistance to change from certain individuals.

5.2 Recommendations

Service innovation by PT Telkom had important managerial consequences that must be carefully evaluated to ensure profitability and customers satisfaction. Service innovation can benefit the organization and its consumers but must be balanced with stakeholder impact. Rushing innovation can cause employee burnout and tiredness due to increased workload and tight deadlines. Thus, managers must carefully manage innovation initiative timelines to ensure employees had the tools, support, and time to engage without compromising their well-being.

Innovation speed affected customer adoption and acceptability. Rapidly offering new services or features may overwhelm customers, making it hard for them to stay up and grasp the value. This can discourage customers from adopting new products, harming the innovation initiative. Managers must assess the best time and communication tactics to introduce and market new developments to customers. Phased rollouts, focused marketing initiatives, and proactive customer education may be used to keep customers informed and involved during innovation.

5.3 Limitations

While this research provided valuable insights, it is important to acknowledge its limitations. Future researchers are encouraged to explore this topic further to expand their understanding. One notable limitation of this research is its geographical scope, as it was conducted exclusively in the small city of Temanggung. It is worth noting that the unique geographical conditions and community dynamics of Temanggung may have influenced the innovation process observed within the research. Consequently, projecting these findings to larger urban areas, such as PT Telkom's operations in major cities, may yield different results. Therefore, future research should consider conducting similar studies in diverse geographic settings to provide a more comprehensive understanding of the factors influencing innovation processes within PT Telkom and beyond.

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APPENDICES

Appendix 1 Letter of Acceptance from Telkom Indonesia



**Telkom
Indonesia**
the world in your hand

Kepada Yth. Ketua Prodi Manajemen Sarjana
Fakultas Bisnis dan Ekonomika
Universitas Islam Indonesia

Perihal: Konfirmasi Penerimaan Magang



Dengan hormat,
Berdasarkan surat Nomor 88/WD2/Div.URT/2023 tanggal 6 Januari 2023 perihal permohonan ijin magang kepada mahasiswa:


Nama	: Difa Dhea Fiva
NIM	: 20311008
Alamat	: Jetis Lor 001/003, Parakan Kauman, Parakan, Temanggung, Jawa Tengah
Tempat/Tgl. Lahir	: Temanggung / 13 Februari 2002
Program Studi	: Manajemen IUP
Jenjang	: Sarjana
Periode Magang	: 20 Februari 2023 - 23 Juni 2023

Bersama ini kami sampaikan bahwa mahasiswa tersebut dapat kami terima untuk melaksanakan magang di perusahaan kami sesuai dengan periode yang tertera.

Atas Perhatian dan kerjasamanya, kami ucapkan terima kasih.


Parakan, 20 Februari 2023



Justin P. Sitohang
 Head of Representative Office



WITEL MAGELANG
PT. Telkom Indonesia (Persero), Tbk.
Jl. Yos Sudarso No. 2 Magelang 56117

T : 0293 362757



Appendix 2 Telkom Parakan as the Place of Internship



Appendices 2 Telkom Parakan as the Place of Internship

Appendix 3 Work Progress Updates to Supervisor



Appendices 3 Work Progress Update

Appendix 4 Daily Log Internship

Name of company : PT Telkom Indonesia
 Name of student : Difla Dhea Fiva
 Date of start : 20 February 2023
 Date of completion : 23 June 2023
 Supervisor : Justin Sitohang

1. February

No	Date	Length of work (hours)	Brief description of activity
1	20/02/2023	8 hours 30 minutes	Introduced the office environment along with employees and existing divisions
2	21/02/2023	7 hours	Overview of the company such reviewed the type of business undertaken with guidance from the supervisor
3	22/02/2023	7 hours 30 minutes	Took a closer look at the types of products that PT Telkom offered along with its target market
4	23/02/2023	7 hours	Got to know about how PT Telkom interacted with its customers
5	24/02/2023	6 hours 30 minutes	Discussed issues that could arise in the process of providing customer services by staff
6	27/02/2023	0 hours (Leave)	Went to the campus to meet academic supervisor for the first consultation
7	28/02/2023	7 hours 15 minutes	Learned about chatbot, how it worked, and how to apply chatbot for customer service

Appendices 4 Daily Log Internship

2. March

No	Date	Length of work (hours)	Brief description of activity
1	01/03/2023	7 hours 15 minutes	Learned on how the chatbot works, examined the contents of the menu that was displayed on the chatbot
2	02/03/2023	7 hours 15 minutes	Did a research on how to build a chatbot using a third party, did consultation with field supervisor
3	03/03/2023	3 hours	Listed the menus that was displayed on chatbot
4	06/03/2023	6 hours 45 minutes	Determined the third party that was used as chatbot builder, learned the use of the available tools from the third party before using it for building a conversation flow
5	07/03/2023	5 hours	Started to design the conversation flow by using the tools from third party
6	08/03/2023	3 hours	Built conversation flow, gathered products information from web and application
7	09/03/2023	3 hours	Built conversation flow, gathered products information from web and application
8	10/03/2023	0 hours (Leave)	Personal matters
9	13/03/2023	5 hours 15 minutes	Built conversation flow, gathered products information from web and application, joined briefing for interns who worked directly in the field
10	14/03/2023	7 hours 15 minutes	Built conversation flow, gathered products information from web and application, did the first chatbot testing
11	15/03/2023	7 hours	Built conversation flow, did personal revision regarding the flow conversation of the chatbot, reviewed how customer complaints went to service officers
12	16/03/2023	5 hours 15 minutes	Built conversation flow, reviewed how customer complaints go to service officers, listing the questions that frequently asked by customers
13	17/03/2023	2 hours	Listed the questions that frequently asked by customers
14	20/03/2023	7 hours 15 minutes	Built conversation flow, listed the questions that frequently asked by customers, compiled semester learning plan
15	21/03/2023	7 hours	Built conversation flow, listed the questions that frequently asked by customers, listed the answers from FAQ

16	22/03/2023	0 hours (National Holiday)	Nyepi
17	23/03/2023	0 hours (Cuti Bersama)	Nyepi
18	24/03/2023	3 hours	Compiled monthly report, listed the questions that frequently asked by customers, listed the answers from FAQ
19	27/03/2023	6 hours 30 minutes	Building conversation flow, listed the questions that frequently asked by customers, listed the answers from FAQ, consulted with field supervisor
20	28/03/2023	6 hours 30 minutes	Built conversation flow, listed the questions regarding product and services, did the second chatbot testing
21	29/03/2023	6 hours 30 minutes	Built conversation flow, listed the questions and answers regarding product and services, did personal revision regarding the flow conversation of the chatbot
22	30/03/2023	4 hours	Built conversation flow, listed the questions and answers regarding product and services, compiled monthly report
23	31/03/2023	5 hours 15 minutes	Built conversation flow, listed the questions and answers regarding product and services, compiled monthly report

3. April

No	Date	Length of work (hours)	Brief description of activity
1	03/04/2023	5 hours 30 minutes	Built conversation flow, listed various questions regarding complaints from customers along with answers to address complaints
2	04/04/2023	5 hours 30 minutes	Built conversation flow, listed various questions regarding complaints from customers along with answers to address complaints
3	05/04/2023	5 hours	Built conversation flow, listed various questions regarding complaints from customers along with answers to address complaints
4	06/04/2023	3 hours	Reviewed customer inquiries, annoyances, and complaints regarding the topic 'Administration and Billing'

5	07/04/2023	0 hours (National Holiday)	Good Friday
6	10/04/2023	5 hours 30 minutes	Built conversation flow, reviewed customer inquiries, annoyances, and complaints regarding the topic 'Administration and Billing'
7	11/04/2023	5 hours 30 minutes	Built conversation flow, reviewed and listed various questions, inquiries, and complaints from the customers
8	12/04/2023	5 hours	Built conversation flow, reviewed and listed various questions, inquiries, and complaints from the customers
9	13/04/2023	5 hours 15 minutes	Built conversation flow, reviewed and listed various questions, inquiries, and complaints from the customers
10	14/04/2023	5 hours 30 minutes	Built conversation flow, reviewed and listed various questions, inquiries, and complaints from the customers
11	17/04/2023	4 hours 15 minutes	Built conversation flow, reviewed and listed various questions, inquiries, and complaints from the customers
12	18/04/2023	4 hours	Built conversation flow, reviewed and listed various questions, inquiries, and complaints from the customers
13	19/04/2023	0 hours (Cuti Bersama)	Eid Al-Fitr
14	20/04/2023	0 hours (Cuti Bersama)	Eid Al-Fitr
15	21/04/2023	0 hours (Cuti Bersama)	Eid Al-Fitr
16	24/04/2023	0 hours (Cuti Bersama)	Eid Al-Fitr
17	25/04/2023	0 hours (Cuti Bersama)	Eid Al-Fitr
18	26/04/2023	3 hours 30 minutes	Built conversation flow, reviewed and listed various questions, inquiries, and complaints from the customers
19	27/04/2023	3 hours	Built conversation flow, reviewed and listed various questions, inquiries, and complaints from the customers
20	28/04/2023	3 hours	Built conversation flow, reviewed and listed various questions, inquiries, and complaints from the customers

4. May

No	Date	Length of work (hours)	Brief description of activity
1	01/05/2023	0 hours (National Holiday)	Labor Day
2	02/05/2023	0 hours (Leave)	Sick
3	03/05/2023	0 hours (Leave)	Sick
4	04/05/2023	7 hours 30 minutes	Finished the conversation flow of the chatbot, consulted with the field supervisor
5	05/05/2023	9 hours 30 minutes	Compiled the monthly report, finished the conversation flow of the chatbot, consulted with the field supervisor
6	08/05/2023	7 hours	Trial and error for the chatbot, adjusted and fixed the errors of the chatbot
7	09/05/2023	7 hours	Prepared research work for the internship report in the form of journal search and also wrote the preparation
8	10/05/2023	7 hours	Tested the WhatsApp bot to several users, shared experiences and opinions with several users regarding the WhatsApp bot
9	11/05/2023	6 hours 30 minutes	Did research journals about service innovation, research thesis about service innovation
10	12/05/2023	6 hours 30 minutes	Fixed errors that occurred during the running of WhatsApp bot
11	15/05/2023	7 hours	Did research journals about service innovation, research thesis about service innovation
12	16/05/2023	7 hours 30 minutes	Gathered more subjects to experiment WhatsApp bot
13	17/05/2023	7 hours 30 minutes	Did research journals about service innovation, research thesis about service innovation
14	18/05/2023	0 hours (National Holiday)	Ascension Day
15	19/05/2023	5 hours	Did research journals about service innovation, research thesis about service innovation
16	22/05/2023	7 hours 30 minutes	Prepared the questions for the final assignment research interview, did the online consultation with the academic supervisor
17	23/05/2023	7 hours 45 minutes	Prepared the questions for the final project research interview

18	24/05/2023	7 hours 30 minutes	Finalized the interview questions and submitted it to the academic supervisor, did research thesis about service innovation
19	25/03/2023	7 hours 45 minutes	Did research journals and article about service innovation and qualitative research, research thesis about service innovation
20	26/03/2023	7 hours	Did research journals and article about service innovation and qualitative research, research thesis about service innovation
21	29/03/2023	7 hours 15 minutes	Compiled monthly report, listed all the organizational data needed from the supervisor
22	30/03/2023	7 hours	Reported progress and work results during the month of May to supervisors, submitted monthly reports to supervisor
23	31/03/2023	7 hours	Assisted customers in the product selection process, did research journals and article about service innovation and qualitative research

5. June

No	Date	Length of work (hours)	Brief description of activity
1	01/06/2023	0 hours (National Holiday)	Pancasila Day
2	02/06/2023	0 hours (Cuti Bersama)	Vesak Day
3	05/06/2023	7 hours	Assisted customers in the process of service complaints through IndiHome Care, monitored WhatsApp Bot work with field supervisors
4	06/06/2023	7 hours	Prepared presentation material for the final presentation of the internship to company representatives
5	07/06/2023	7 hours	Planned a data collection interview schedule with staff, prepared presentation material for the final presentation of the internship to company representatives
6	08/06/2023	7 hours	Prepared presentation material for the final presentation of the internship to company representatives

7	09/06/2023	3 hours	Prepared presentation material for the final presentation of the internship to company representatives
8	12/06/2023	7 hours 30 minutes	Appointed staff for data collection interview, did the interview for collecting data with the head of the representative office/field supervisor, did the consultation with the field supervisor
9	13/06/2023	7 hours	Did the data collection interview with Team Leader Provisioning Telkom Akses Teritori Temanggung, Team Leader Assurance Telkom Akses Teritori Temanggung, and Team Leader Caring Based Territory Temanggung
10	14/06/2023	7 hours 30 minutes	Did the data collection interview with Team Leader Teknisi Assurance, looked for potential customers and try the WhatsApp chatbot in order to educate them about Telkom's products and services
11	15/06/2023	7 hours 15 minutes	Compiled monthly report, prepare for the presentation to the representative of the company
12	16/06/2023	7 hours	Looked for potential customers and try the WhatsApp chatbot in order to educate them about Telkom's products and services
13	19/06/2023	7 hours 15 minutes	Revised the WhatsApp Bot project according to supervisors' requests
14	20/06/2023	6 hours	Revised the WhatsApp Bot project according to superiors' requests, consulted with the field supervisor
15	21/06/2023	2 hours	Demonstrated the use of WhatsApp Bot to company representatives, farewell to all employees
16	22/06/2023	0 hours (Leave)	Left for passport making
17	23/06/2023	0 hours	Left