



Information Technology Impact on Business Model: Case Study Peer to Peer Lending Company

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Article Information

Submitted :29 Apr 2024

Reviewed: 22 May 2024

Accepted : 15 Jun 2024

Keywords

peer-to-peer lending, it impact, business model, transformation, supply chain financing

Abstract

Current technological developments encourage companies to re-evaluate their organizational business models to take advantage of technological advances. This research explores the impact of information technology in business model transformation at peer-to-peer lending company. PT XYZ is one of a financial technology (fintech) company in Indonesia which was originally engaged in the traditional lending and borrowing business and then transformed into peer-to-peer lending and then developed Supply Chain Financing (SCF) with a Business to Business (B2B) scheme which was previously only done by banks. The IT Impact Map analysis conducted in this study shows this company's strategic transformation in adopting technology, IT has an impact on company strategy and value through business process reengineering and allows companies to capture new opportunities.

A. Introduction

The current technological landscape is compelling companies to reassess their organizational models [1]. Technological advancements have emerged as a key driver behind the transformation of business models within organizations [2]. Information Technology (IT) has fundamentally reshaped traditional business paradigms into modern, IT-intensive models that are instrumental in achieving corporate objectives and gaining a competitive edge [3], [4] particularly in the realm of financial technology (fintech). Financial technology leverages IT to provide customer-centric services via internet technology, encompassing business domains such as financing, payments, capital markets, and insurance services [5].

The evolution of financial technology is also evident in Indonesia, where financial technology companies operate under regulatory oversight, authorized by the OJK (Financial Services Authority) [5]. In the macroeconomic context of 2021, the information technology and telecommunications business, including fintech, played a vital role in the country's economy, contributing to tax revenue and job creation. PT XYZ, a technology-based peer to peer lending company in Indonesia, has evolved and faced challenges while aiming for growth in the technology-based lending service industry [6].

PT XYZ is a prominent financial technology company operating in peer-to-peer lending, facilitated through digital platforms that enable prospective borrowers and lenders to apply for loans. The company have objective to create a broad borrower ecosystem. The transformation continued until 2023 and currently, PT XYZ is developing a new business line in supply chain financing (SCF) that focuses on the Business to Business (B2B) schema. This research discusses impact of information technology on business models of PT XYZ, since the development of Information Technology (IT) has brought enormous changes in changes business models, and it aims to understand how information technology can influence strategy and capabilities. This research uses the data from internal documentation in PT XYZ and external information such as website and annual report to analyze the business model transformation of this organization. This research using IT Impact Map as the tools for analyzing the transformation of business model PT XYZ.

Previous research related this is the 2021 study by Hidayatullah examines how Information Technology (IT) influences the mission model at the One-Stop Integrated Investment and Services Agency (DPMPTSP) of DKI Jakarta, aiming to enhance services for residents and business owners [7]. Utilizing qualitative methodology and data from various sources, the research demonstrates that IT-enabled services have streamlined operation at DPMPTSP, resulting in faster, more efficient service delivery, heightened application rates for licenses, and increased tax revenue from licensing and non-licensing fees. On separate note, Ahmad's 2019 study focuses on developing a standardized decision tool to aid in technology adoption decisions within ambidextrous BPM environment, utilizing case studies, empirical analysis, and Structures Equation Model (SEM). Building on this, a forthcoming research project will qualitatively explore the impact of IT transformation on PT XYZ business model and its implications for the fintech ecosystem in Indonesia.

This research uses the IT impact tools as the mapping tools to see the movement business can be happened to an organization massively. PT XYZ starting

the business peer to peer lending company (C2C) and Information Technology can change the business as B2B. This research aim to providing insights and lesson learned to similar organisation that can help transforming their business model effectively by leveraging IT to achive their goals as financial technology company.

B. Research Method

This research is designed by a qualitative approach using thematics analysis. Thematic analysis is a qualitative research method used to identify, analyze, and report patterns or themes within data [8]. This research is to understand the impact of Information Technology (IT) transformation on the business model of peer-to-peer lending company and its implications for the financial technology ecosystem in Indonesia. This research methodology is explained in the following flow below :



Figure 1. Research Flow Chart

This research utilize a case study approach to gather information related to the business model transformation of PT XYZ and tdelve into relevant data and information concerning the company's history, the adoption of information technology developments, changes in the business model, and their impact on the company's performance. Documents analysis will be conducted to collect historical data and documentation related to the transformation of PT XYZ.

The initial phase of data analysis involves outlining the timeline, following a comprehensive understanding of the prevailing business processes, a detailed analysis of these processes and their influence on information technology ensues, employing the quadrant map of business evolution. Within this quadrant, one can discern processes categorized as enhance, expand, explore, or exit.

This study investigates the influence of information technology (IT) on corporate strategy development using IT impact maps tools. This research aims to assist PT XYZ in comprehending how IT affects numerous facets of their operations and to encourage IT innovation by offering method for finding fresh ways to utilize IT to nhance business outcomes.

C. Result and Discussion

1. Business Model

As previously explained, the business model is a collaboration between the company and its environment to create strategy, utilize capabilities, and generate value for stakeholders. In this section, this study analyzes the strategy, capability, and value that exist in peer-to-peer lending company.

a) Strategy

Technology has had a significant impact on peer-to-peer lending company business model over the years. PT XYZ focused on providing loans using traditional methods that involved field surveys and direct interviews with loan applicants. To support this approach, PT XYZ developed a back-end system for managing borrower and loan data, used for credit assessments, and determining loan interest rates [6].

In 2016, peer to peer lending company, formerly known as PT XYZ, revamped its Articles of Association to align with its new focus on providing Information Technology-Based Money Borrowing and Lending Services [9]. PT XYZ embarked on its business journey as an online lending platform amidst the growing fintech industry in Indonesia. This strategic decision was a response to changing business environments characterized by increased demand for online loans. By adopting a digital strategy and offering online lending services, PT XYZ capitalized on the advancements in financial technology, enabling faster and more efficient lending processes. This presented an opportunity to reach a broader range of borrowers and compete effectively in the competitive financial technology industry.

In 2018, PT XYZ expanded its user base by educating the increasing number of smartphone users, establishing additional office branches across various Indonesian cities, and launching multipurpose loan products to cater to the diverse needs of SMEs. This resulted in a successful dispersal of loans amounting to IDR 1 trillion in 2018 [6]. PT XYZ also collaborated with travel company to offer Pay Later services, further expanding its reach. Overall, PT XYZ's 2018 strategy led to remarkable business growth, with a 20% increase in loan disbursements compared to the previous year.

Despite the challenges posed by the COVID-19 pandemic in 2020, PT XYZ maintained stable growth by keeping IT infrastructure improvement, competent workforce, and sufficient office networks. These factors facilitated market penetration and customer satisfaction, allowing the company to achieve its 2020 business targets [6].

In 2020, PT XYZ initiated the development of an Artificial Intelligence (AI) system to support more accurate credit assessments by processing comprehensive data, automating the credit assessment process, and enhancing loan portfolio quality. This strengthened the company's competitive advantage, providing a better-quality service to prospective borrowers and investors [9].

In 2021, amidst the thriving financial technology industry in Indonesia, PT XYZ implemented various IT strategies that positively impacted the company's performance and business model. It expanded its features and products, such as collateral-based financing with "LANCAR," and strengthened technological collaborations with other companies, like partnering with some banks for collateral-based loan products. These initiatives not only reinforced PT XYZ's position as an innovative financial technology service provider but also generated additional revenue and supported the company in serving a broader range of customer segments. Furthermore, partnerships with some banks and other e-commerce

companies extended the customer base with more diverse products and services, enabling integration with third parties and expanding the overall product and service offering [9]. Through the summary of events above can be seen how PT XYZ is transformed to be able to compete in this digital era. PT XYZ's business model evolution shown in Figure 1.

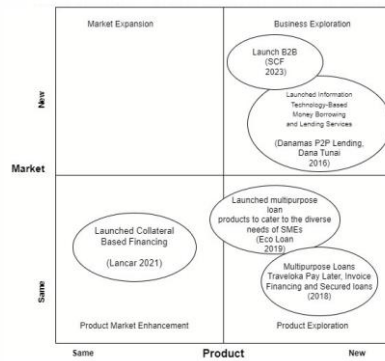


Figure 2. PT XYZ Business Model Evolution

After several years running the business traditionally, PT XYZ change the product to peer-to-peer lending, and launched the product named “Dana Tunai”.

PT XYZ launch a new product named “Ecosystem Loan” in 2018. Ecosystem Loan is a type of loan that is offered by PT XYZ to business that operate within a specific ecosystem, such as: travel company (Traveloka) and e-commerce company (e-Fishery).

In 2017, PT XYZ launched the “Invoice Financing” as one of product. Invoice financing is a financial arrangement in which business sells its accounts receivable (unpaid invoices) to a third-party financial institution (PT XYZ), which provides the business with immediate cash flow rather than waiting for the customers to pay their invoices.

In 2021, PT XYZ launched new product named LANCAR as a collateral-based financing, with plafond loan maximum IDR 2 billion per user with various tenure to per loan.

In 2023, PT XYZ also launched the flagship product named “Supply Chain Financing (SCF)”. SCF is a product commonly known as supplier finance or reverse factoring, is a financial strategy that involves optimizing the management of working capital and cash flow within a supply chain. In SCF, a buyer works collaboratively with its supplier and PT XYZ to improve the efficiency of the payment process.

b) Capability

To support these strategies, PT XYZ has consistently enhanced its Information Technology (IT) capabilities. Initially, PT XYZ developed a back-end system to efficiently manage borrower and loan data, facilitating crucial functions in the P2P lending business, such as credit assessments and determining loan interest rates. This highlights their Information Technology (IT) capability in efficient data management and key functions in P2P lending.

PT XYZ responded to technological advancements by educating smartphone users and developing a mobile application that allows users to easily apply for loans through their mobile devices, supporting expanded reach and convenience for potential borrowers which adopted a digital strategy by providing an online lending platform. This technology includes automating the loan process and improving the accuracy of credit assessments.

In 2020, PT XYZ developed an AI system for more accurate credit assessments, showcasing their IT capabilities in processing comprehensive data and leveraging artificial intelligence for automated credit assessment processes. Additionally, PT XYZ entered technology collaborations with other companies, such as Banking and e-commerce companies which demonstrated their IT capabilities in integrating systems and services with third parties to expand their service reach and offer a wider range of products. As a result, PT XYZ possesses information technology capabilities across various aspects of their business, including data management, loan processing, credit assessments, and expanding their service network.

c) Value

PT XYZ plays a significant role in benefiting the public by providing a variety of products and features through its application. Furthermore, it continues to develop its application to enhance user data and fund security. The company also offers insurance protection to funders who invest in PT XYZ, providing a safety net in case borrowers default on their loans.

PT XYZ has successfully reached all segments of society and regions across Indonesia, with users spanning 34 provinces. In 2021, PT XYZ's borrower increased by 35.29% (people) and loan disbursement in rupiah increased by 796.9% [6]. Through ongoing efforts in development, increasing funding, and adding new features, PT XYZ strives to grow and achieved success in the technology-based peer-to-peer lending industry. As a result, it gives contribution in lender increase by 24.19%.

PT XYZ also successfully realized its vision to empower productive business loans by do facilitating small business in obtaining financing, ex: travel company (Traveloka) and e-commerce company (e-Fishery), assisting in realizing finance quickly.

2. IT Impact on Business Model

The IT impact on PT XYZ's business model can be analyzed using IT Impact map, shown in Figure 2. IT enhancement for P2P lending change the business process transforming. The process involves transforming the traditional financing business model into technology-based financing, allowing for the aggregation of funds from individuals and disbursing them to borrowers. Information Technology also plays important role when PT XYZ integrates with various platform, such as: Traveloka, e-fishery and other third parties, presenting new opportunities for extending both consumptive and productive credit through established platforms. At this stage, the Information Technology (IT) impact manifest as the emergence of new opportunities in the market.

The 2020 pandemic prompted companies to undergo a business process transformation through business process reengineering. PT XYZ chose to implement AI to automate various credit assessment processes. By 2023, the impact of business process reengineering, and automation has allowed PT XYZ to undergo a

transformation by introducing a new flagship product, Supply Chain Finance (SCF). At this stage, the IT impact is on business transformation, where every credit application, approval process, disbursement, and settlement are carried out using information systems. Consequently, a new business model emerges, namely SCF, requiring rapid processing due to the potential for numerous loan agreements within a single supply chain cycle. This transformation results in a new business line for PT XYZ, known as Business-to-Business (B2B), aligning with PT XYZ's goal of creating the most extensive financing ecosystem.

The impact of IT on a PT XYZ's business processes and how a company develops its strategy can be analyzed using the IT Impact map. The IT Impact map in this research can be seen in Figure 3.

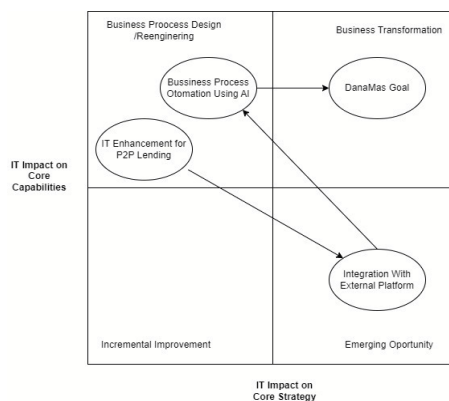


Figure 3. Impact of IT on Business on Core Strategy at PT XYZ

Field Code Changed

As a result, based on internal report of PT XYZ of new launched of new product in PT XYZ names Supply Chain Financing (SCF), the total disbursement of PT XYZ around IDR 180 billion, meanwhile the disbursement number is increasing more than around 25% compare to last year before the SCF product launched. The number of total loans created almost hit 50 Million reported per October 2023 [6].

D. Conclusion

PT XYZ has leveraged the power of Information technology (IT) transformation to reshape its business model. From the analysis, IT has significantly impacted to the transformation of PT XYZ's business model through business process reengineering, specifically leveraging technology to support peer to peer lending. Furthermore, IT has also influenced PT XYZ's capability to seize new opportunities by integrating with other platforms or third parties and create a new business line that focus on Business to Business (B2B) strategy. It is align with the company's objective to expand the borrower ecosystem.

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