Tukang.com Business Model Re-Design: Smartphone-Based Builder Service Application

A Fadillah*, J Hartanto, N A Achsani, N Hasanah
IPB University, Bogor, Indonesia
*achmadfadillah@apps.ipb.ac.id

Abstract. Globalization has now entered a new era where the internet sector has become a strategic focus and development priority throughout the world. The business sector has been using the internet and mobile applications as media transactions, including the construction service sector. One company in the field of construction services that utilize internet technology and mobile applications is Tukang.com. Facing increasingly high competition, Tukang.com must further improve its performance comprehensively. Therefore, it is necessary to evaluate and improve the performance so that it becomes a comprehensive measure of performance. This study aims to evaluate and measure the performance of Tukang.com comprehensively. The methods used in this paper were the Business Model Canvas (BMC) and Balanced Scorecard (BSC). The BSC method not only measures performance based on financial perspectives but also measures performance based on non-financial perspectives. Analysis of balanced scorecard Tukang.com produces initiatives from four perspectives namely financial perspective, customer perspective, internal business process perspective and growth, and learning perspective. Furthermore, the weighting of the Eckenrode method was carried out to weigh the strategic objectives that Tukang.com should prioritize for the development of its company. The improved business model of Tukang.com is the result of the three methods that have previously been conducted and have directly affected the nine business elements in the canvas model.

Keywords: Balanced Scorecard, Business Model Canvas, Eckenrode, Smartphone-based Application, Tukang.com.

1. Introduction

1.1. Background

Globalization has now entered a new era where the internet sector is becoming a strategic focus and development priorities around the world. According to a survey summarized in Digital in 2017: Global Overview, up to 2017 Internet users around the world were estimated at 3,773 million, with an increase of 21% or 482 million in the year 2016 [1]. Meanwhile, in Indonesia, Internet users in 2017 reached 143.260 million, or equivalent to 54.7% of the country's population [2].

The development of information technology also affects business competition. Business managers are now required to be more creative and anticipative in developing their business, because of the fundamental change in the business competition system that is now beginning to utilize technology. The use of Internet in the business world has now transformed a role that was previously only a
medium for electronic information exchange into media for business strategy applications such as sales, customer service, and marketing [3]. According to Lichtenthal and Eliaz [4], an online-based business communication system is the most effective way to send messages to customers comprehensively, from knowledge, preference, liking, purchase, awareness, and conviction.

In 2017 the number of active smartphone users in Indonesia had reached 71.74 million [2]. This encourages business people to launch mobile applications that can be easily accessed by the customer through the smartphone with features that are specially designed to facilitate the customer in the transaction. In Indonesia, the role of the construction sector on the development and national economy can be seen from its contribution to the national gross domestic product, which increased from 10.21% in 2015 to 10.38 in 2016 [5]. In terms of employment, the construction sector can absorb a considerably large number of labor workers.

There are around 142,852 construction companies in Indonesia [5]. One of the companies in the field of construction services that utilize Internet technology and mobile application is Tukang.com. The company provides construction services or what is commonly called builders. Customers who use Tukang.com services can easily get the power of professional handyman with a wide range of builders services features and expertise that can complete and help various problems in the building.

As the internet grows in business, the company's challenges and competition are getting bigger. The improvement of the company's performance is an important matter that Tukang.com must do to stay ahead and compete both at national and global levels. It is supported by Xiao et al. [6], who says that technology offers a variety of possibilities for companies to provide services with a more rational cost and can reach a wider user.

1.2. Objective
This study aims to evaluate and measure strategic targets in the performance measurements of the Tukang.com comprehensively using the Balanced Scorecard method. This study also analyzes the improved Business Model Canvas of Tukang.com based on the weighting and strategic target of the Balanced Scorecard.

2. Method
2.1. Research Location and Time
This research was conducted in Tukang.com company from April 2019 until June 2019.

2.2. Data Collection Methods
In this study, sampling techniques were conducted based on non-probability sampling methods with purposive sampling. The author establishes specific criteria that correspond to research objectives and customer goals. It is hoped that a sample of five boards of directors can answer research issues and in accordance with the research objectives.

2.3. Data Analysis
Both primary and secondary data and other supporting information obtained from the research are processed manually using Microsoft Excel. Data analysis was conducted using qualitative and quantitative analysis. The qualitative approach includes documents on mission, vision, key performance objectives, strategic objectives, and corporate strategic targets in Tukang.com based on the determined assessment criteria of the four Balanced Scorecard and the questionnaire answers. The weighting of each of the Balanced Scorecard's perspective is carried out by the Eckenrode method. The weighting rate of the Balanced Scorecard perspective resulted in an improvement of the Business Model Canvas. The complete research framework is shown in Figure 1.
3. Results and Discussions
Based on the data from December 2018, which can be seen in Figure 2, Tukang.com has 48,820 customers with the highest users are 54% aged 25 to 34 years, followed by the second most users are 29% aged 35 to 44 years. The data from December 2018 also describes the total app downloader of Tukang.com reaches 104,000 downloaders, 60% of them are women and 40% are men.

In the Tukang.com application, customers can top up the balance of the handyman or the project deposit. Payment via electronic system aims to facilitate customers to make transactions through the
application without having to do a direct transaction with Tukang.com partners. In addition, Tukang.com also provides credit services in cooperation with financial institutions to provide an easy way for customers to pay the services. The official brand selection on the Tukang.com application interface, which can be seen in Figure 3, aims to make it easier for customers to choose a brand and a partner that has been designated and trusted by the brand.

![Figure 3 Tukang.com application interface on iPhone](image)

3.1. Design of Tukang.com Balanced Scorecard

The Balanced Scorecard concept is a performance measurement concept that presents a comprehensive framework in order to describe the company's vision and mission into its strategic objectives [7]. Corporate strategy objectives are required by Tukang.com to develop and evaluate the company in order to compete with other competitors. The strategy required to develop Tukang.com is to design the right performance system in order for the defined strategy to be carried out according to the target standards set by the company. One of the performance system is the Balanced Scorecard.

The designing of Balanced Scorecard Tukang.com was conducted with internal analysis through in-depth interviews with the company's stakeholders, namely the CEO, COO, CMO, CTO and CFO. Target strategies and corporate targets were tailored to the company's objectives. The concept design of Balanced Scorecard examines four perspectives: financial perspective, customer perspective, perspective of business internal processes, as well as a learning and growth perspective. Every perspective on the concept of Balanced Scorecard has strategic objectives, key performance indicators, target and strategy initiatives for the company's performance. Figure 4 shows a strategic objective based on the results of the interview when designing the Balanced Scorecard of Tukang.com.

3.2. Strategic target weighting using Eckenrode method

The strategic target weighting with Eckendrode method aims to determine the priority level of each Balanced Scorecard and IKU priority level perspective on Tukang.com performance. The Eckenrode method was used in this study to support the weights and the final score of each assessment. There are four stages that are conducted in the data processing stage, namely to set the main performance target with the perspective of Balanced Scorecard, target setting and strategic initiatives, deciding on the weighting using Eckenrode method, and lastly recommendation of strategic initiatives for company development and evaluation.

3.3 Financial Perspective

In the financial perspective, there are four strategic objectives, namely increased profit, increased efficiency, strategic investment and financial order. The result of a strategic target to be weighted from a financial perspective is shown in Figure 5. Weighting result indicates that the strategic target of increased profit has the highest weight of 0.43 compared to the other three targets. This suggests that increasing the company's profit has the highest level in terms of priorities. Increase in profit can be
done by increasing the volume of transactions (Bill Size) to increase revenue and to hold attractive promo to bring customers.

Figure 4. Flowchart of balanced scorecard perspectives
3.4 Customer Perspective

In the customer’s perspective, there are three strategic objectives, namely increased customer amount, improved customer satisfaction and good reputation. The result of the weighting of the strategic targets from the customer's perspective is shown in Figure 6.

The weighting results show that the strategic target of increased customer satisfaction has the highest weight of 0.53 compared to the other two objectives. This is because a prioritized increase in customer satisfaction will have a good impact on the number of subscribers and will result in a good reputation. The achievement indicators for this strategy are namely providing good and sustainable service and providing benefits for loyal customers.

3.5 Internal Business Process Perspective

In the internal business process perspective there are three strategic objectives, namely improvement of product innovation, improvement of cooperation and improvement of service quality. The result of the weighted internal business process is shown in Figure 7.

It is shown that improvement of service quality has the highest weight of 0.53 among the other two. This indicates that the company should prioritize improvement of service supported by competent human resources in their field. Improvement of service quality is done by giving deadlines to the partners so that the work can be completed in a timely manner, also by designing and structuring new systems faster to support the company's performance Tukang.com.
3.6 Learning and Growth Perspective

In the growth and learning perspective there are three strategic objectives, namely increased employee productivity, good working atmosphere and implementation of safety and healthcare at work. The result of the prioritization in learning and growth perspective is shown in Figure 8.

It is shown that increased employee productivity is a top priority in the company with the highest weight of 0.46 compared to the other two strategic objectives. This shows that increased employee productivity is an aspect prioritized by Tukang.com. Increased employee productivity will accelerate the growth of the company which in turn will impact the profit increase and the company development. The strategic initiatives to encourage employee performance are by implementing reward and punishment system to the employees and partners based on their performance results and implementing policies for minimum order of partners.

3.7 Development of Tukang.com Business Model Canvas

Based on the results of the performance analysis of Tukang.com with Balanced Scorecard and direct interviews and observations with the company's internal parties, the initiative strategies for the main performance indicators are obtained. The strategies become the base to formulate an improved Business Model Canvas [9] which was previously made by Tukang.com. The initiative strategies are useful for determining the right managerial decisions for the company in choosing an alternative business model that will be applied in the future. Figure 9 shows the improved BMC of Tukang.com.

1. Financial perspective

In the financial perspective, the main performance indicator is increased profitability. Increased profit impacts other Business Model Canvas elements such as:

a. Revenue stream

The profit increase is not separated from the many users of Tukang.com application and the revenue sharing from the partners. With the increase in Bill Size, the company will get revenue from the incentive of the size of transactions made by customers to the partners so Tukang.com is able to achieve an increased profit as a strategic target of financial perspective.

b. Key Resource
The Business Model Canvas improvement on the Key Resource is to add an integrated innovative finance system to improve the company's financial performance and to make the company’s budget more efficient.

2. Customer perspective
In the customer perspective, the main performance indicator is increased customer satisfaction. Increased customer satisfaction impacts other Business Model Canvas elements such as:
   a. Customer relationship
      Good relations between companies and customers will have an impact on increasing customer satisfaction. Therefore, the improvement of Business Model Canvas in customer relationship is by adding activities that attract new customers and retain existing customers. Some programs that could be added in customer relationship is to conduct free construction consultation and to give reward or cashback to loyal customers.
   b. Channels
      There is a need to add some kind of medium or channel that connects the company’s value proposition to customer segments in order to improve customer satisfaction, which in turn will positively impact company’s profit. The way to improve Business Model Canvas on channel elements is by promote advertising on social media and making construction exhibitions.

3. Internal business process perspective
In the internal business process perspective, the main performance indicator is improvement of service quality, which impacts other Business Model Canvas elements such as:
   a. Value Propositions
      The improvement in the Business Model Canvas Tukang.com on the value propositions element is to increase the number of certifications possessed by the partners that have joined Tukang.com. This is the company's effort to improve the quality and value offered to Tukang.com’s customers and partners. It also aims to demonstrate the professionalism and competence of a worker in their field.
   b. Key Activities
      The Business Model Canvas improvement on key activities element is by conducting research and development. Tukang.com must be allocated a number of special funds to conduct research and development. This research and development activities can also involve universities and consultants.

4. Learning and growth perspective
In the learning and growth perspective, the main performance indicator is increased employee productivity, which impacts other Business Model Canvas elements such as:
   a. Key Activities
      The Business Model Canvas improvement on key activities element is by conducting training on employees of the financial section. The company's financial resources should be trained because financial management in a company requires competent and trustworthy employees. The training contained material about the company's financial management by bringing the competent instructors in the field of financial sciences.
   b. Key Resource
      Improving the productivity of Tukang.com partners will impact the increase in the company's profits. Therefore, the Business Model Canvas improvement on the Key Resource is to create a minimum target order for partners in one week and giving training for the employees in order to increase the efficiency of company performance.

4. Conclusions
The determination of key performance indicators is obtained from observations, interviews and literature studies. Meanwhile, the strategic targets and initiatives are confirmed to the board of Directors of the company Tukang.com. Based on the results of the weighting by Eckenrode method, we obtained the result of the highest interest in strategic target of financial perspective is increased profit (0.43). From the customer's perspective, the highest interest is increased customer satisfaction.
(0.53). As for the strategic objectives of internal business process, the highest interest result is quality improvement and service quality (0.56), and for the learning and growth perspective, the highest interest is increased productivity employees (0.46).

The development of the improved Business Model Canvas of Tukang.com using the Balanced Scorecard demonstrated the linkage and continuity between strategic initiatives generated by the BSC method into improvement on the initial BMC Tukang.com. There are four strategic goals on the improved BMC that interrelated with BSC. The strategic initiative of financial perspective BSC is related to BMC Revenue Streams and Key Resource. The strategic initiative of customer perspective BSC deals with BMC Customer Relationship and Channels. The strategic initiative of internal business process perspective relates to BMC Value Propositions and Key Activities, and the strategic initiatives of the learning and growth perspective is related to BMC Key Activities and Key Resource. The strategic initiatives as a result from BSC and the improvement in BMC of Tukang.com will have implications on the cost structure consisting of operational costs and marketing costs.

5. Recommendations

For the company Tukang.com, it is advised to implement the improved BMC and the measurements by the BSC method to improve the performance of the optimal company. Improvement of good corporate performance according to the priorities will guide the company more quickly and precisely in achieving the company’s target. Improving the performance in the four perspectives of BSC will impact the company's overall performance. The results of this study can also be a reference for Tukang.com in taking policies for the evaluation of the company. Performance measurement should also be carried out periodically and regularly considering the condition of the company that will continue to change, so as to produce improvements that can be conducted well from the results of the evaluation.

This study only carried out in a short term of the company's observation periods, therefore it is advised for future research to be conducted for the company performance in medium or long-term. Researchers can then add or change strategic objectives, targets and key performance indicators in accordance with the company's future conditions.
Figure 9. The development and improvement of Tukang.com business model canvas.
References

[1] Johansson AC. 2016. Social media and politics in Indonesia. Stockholm School of Economics Asia Working Paper. 42

[2] [APJII]. Asosiasi Penyelenggara Jasa Internet Indonesia. 2018. Buletin APJII Edisi 22. Diambil dari: apjii.or.id/BULETINAPJIIEDISI22Maret2018.pdf

[3] Mosavi A. 2016. Mobile Apps. Budapest (HU): Obuda University.

[4] Lichtenthal JD, Eliaz S. 2003. Internet integration in business marketing tactics. Industrial Marketing Management. 32(1): 3–13.

[5] [BPS]. Badan Pusat Statistik. 2016. Statistik Konstruksi. Jakarta (ID): Badan Pusat Statistik.

[6] Xiao JZ, Yang H, dan Chow CW. 2004. The determinants and characteristics of voluntary internet-based disclosures by listed Chinese companies. Journal of Accounting and Public Policy. pp. 191-225.

[7] Mulyadi, Johny, Setyawan, (1999). Sistem Perencanaan dan Pengendalian Manajemen: Sistem Pelipatganda Kinerja Perusahaan, Edisi satu, Yogyakarta: Aditya Media,

[8] Maarif MS, Tanjung H. 2003. Teknik-teknik Kuantitatif untuk Manajemen. Jakarta(ID): PT Grasindo.

[9] Osterwalder A, Pigneur Y. 2010. Business Model Generation. New York(US): John Wiley & Sons.