

Formulating a Strategic Management of Social E-Commerce through a Combination of SWOT and PESTLE Analysis : Case Study

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Abstract

Social e-commerce are considered to play important roles in creates connection between product and community. This research tried to formulate the strategic management for the social e-commerce when they have to face the global economic challenge and to be more competitive. A case study was conducted in the biggest and only one social e-commerce in Indonesia. This social e-commerce provides the biggest virtual community in Indonesia which have many forum and also trading forum. The social e-commerce has several problems, such as how to get competence in human resources, improving infrastructure, the next action for trading forum and to gain trust of customer again. To accomplish that problem, it should tried to formulate the strategic management through a combination of SWOT and PESTLE analysis. The SWOT analysis consists of four elements, i.e., strength, weakness, opportunities, threat. On the other hand, PESTLE analysis have six variables, i.e., political, economic, social, technological, legal, and environment. Researchers hope that the strategic management which has been formulated could be used by the social e-commerce to help the social e-commerce to handle the aforementioned problems.

Keywords

SWOT analysis, PESTLE analysis, strategic management, social e-commerce.

Introduction

Today, internet is as an instrument for business famous for e-commerce. E-commerce is the main alternative to develop effective and efficient business (Ismarani, 2014). In the other hand, e-commerce consists of social e-commerce. Social-commerce is representative from Web 2.0. It gives information by one person to others (monolog media) or by people to others (social media monolog). Some examples of Web 2.0 social media sites include blogs, web forums, virtual communities, and social networks (Kaplan & Haenlein, 2010). In the social e-commerce, there are a lot of problems such as how to get competence in human resources, improving infrastructure, the next action for trading forum, and to gain trust of customer gain. Therefore, this study focused on solution to solve the problem by strategic management.

There has been a movement toward thinking of strategic management for over the past decades; it is not just a function to develop an organization, but it is more as a set of values and processes to facing global competition. The role of management is too important to be ignored since it has a vital position in organize its position in market. Strategic management is the process of evaluation, planning, and implementation designed to maintain or improve competitive advantage (Cooper, 2014). The process of evaluation is concerned with assessment of the external and internal environments. This research tried to formulate a strategic management through SWOT analysis and combine it with PESTLE analysis. PESTLE analysis is strategic planning tool to expand on the external context by looking in detail at specific types of issues that frequently have an impact on company, i.e., political, economic, social, technological, environmental and legal factors (Kolios & Read, 2013). In order to exhibit the applicability of the proposed methods, a case study has been conducted in one of the bigger social e-commerce in Indonesia. Social e-commerce in Indonesia has revenue about Rp 100 billion in 2015, but it has 28 million visitors per month that is 700 million page accessed and around 4,000 threads created in daily basis (Shona, 2016).

2. Research Method

This research tried to combine SWOT Analysis and PESTLE model to formulate the strategic management of social commerce. They are analytical tools that help identify the key external and internal factors that should be taken into account in order to achieve success in a company. A case study has been conducted in the biggest and only one social e-commerce in Indonesia, to help the social e-commerce to alleviate its problems, particularly on the company strategy for facing current development.

2.1 SWOT Analysis

SWOT Analysis is a tool used for strategic planning and strategic management in organizations. It can be used effectively to build organizational strategy and competitive strategy (GÜREL & TAT, 2017). There are four element of SWOT Analysis, i.e., strengths and weakness of an internal factors of organization as well as the opportunities and threats of an external factors of organization (Shinno, et al., 2007).

The first is strength. This element is the characteristic that adds value to something and makes it more special than others. It refers the characteristics and situations in which an organization is more effective and efficient compared to their competitors (DİNÇER, 2007). Second is weakness. This element refers to that something is more disadvantageous when compared to something else or a characteristic that is negative and unfavorable. It means the aspects or activities in which an organization is less effective and efficient compared to its competitors. Third is opportunities. This element is a situation or condition suitable for an activity. On other hand, it is an advantage and the driving force for an activity to take place. For this reason, it has a positive and favorable characteristic. The last is threat. This element is a situation or condition that jeopardizes the actualization of an activity or a disadvantageous situation. So, it has a negative characteristic that should be avoided. By identifying its SWOT, the organization can build strategies related its strengths, eliminate the weakness, exploit the opportunities or counter its threats (Yuksel & Dagdeviren, 2007).

2.2 PESTLE Analysis

PESTLE Analysis is strategic planning tool to expand on the external context by looking in detail at specific types of issues that frequently have an impact on company, i.e., political, economic, social, technological, environmental and legal factors (Kolios & Read, 2013). This tools focus to identifying trends can helpful for thinking proactively and anticipating change (Rastogi & Trivedi, 2016).

The first is political. It is government factors which may influence the company, i.e., tax policies, fiscal policy, trade tariffs etc. Second is economic. It refers an economy's performance that resonating long term effects that directly impacts a company, i.e., inflation rate, interest rates, foreign exchange rates, economic growth patterns etc. the third is social. It means sociological factor which takes into consideration all events that affect the market and community socially, i.e., cultural trends, demographics, population analytics etc. The technological is an innovations in technology that may affect the operations of the company and the market. The fifth is environmental. It is environment factors that affect business, not limiting to climate, weather, geographical location, global changes in climate, environmental offsets, ground conditions, ground contamination, nearby water sources, etc. The last is legal. It refers all legal aspects, i.e., employment, quotas, taxation, resources, imports and exports, etc.

Case Study

A case study was conducted in social e-commerce in Indonesia, which is considered as the biggest and the only one social e-commerce platform in Indonesia. This is virtual community that provide online marketplace and forum in Indonesia. The features are online payment system, online service to top up phone credit, advertising platform, internet radio, a community marketplace for trading and many forum else. The revenue of this company is under Rp 100 billion in 2015, but it has 28 million visitors per month that is 700 million page accessed and around 4,000 threads created in daily basis (Shona, 2016).

3.1 Designing external and internal factors evaluation matrix using SWOT analysis

This is external (opportunities and threats) and internal (strengths and weaknesses) factors that affected the social e-commerce in Indonesia were evaluated. Based on customer's idea, expert in e-commerce, previous research and many literature, each item was evaluated.

Table 1 Internal factors evaluation (IFE) matrix

	Internal Factors	Weight	Rating	Weighted Score
Strength	A branding big virtual community in Indonesia	0.07	3	0.21

	There is work office and work environment which are creative and comfortable	0.14	3	0.39
	Informal working system in company	0.14	3	0.39
	An evaluation for work goals periodically	0.07	3	0.21
	Total	0.40		1.20
Weakness	This company doesn't being magnet for professional worker	0.2	2	0.40
	The employee are still less competence	0.2	3	0.60
	There is no innovation to compete others e-commerce	0.1	3	0.30
	The server is slowly	0.1	3	0.30
	Total	0.6		1.60
	Total Weighted Score	1		2.80

Internal factor evaluation (IFE) matrix is a strategic management tool used for evaluating strengths and weaknesses in functional areas of a company. The IFE matrix can be created using the following :

1. Key internal factors: The first step is to identify strengths and weaknesses.
2. Weights: IFE matrix assigns a weight that ranges from 0.00 to 1.00 for each factor. The weight assigned to a given factor indicates the relative importance of the factor. Zero means not important, while one indicates very important.
3. Rating: Practitioners usually use rating on a scale from 1 to 4. Rating captures whether the factor represents a major weakness (rating = 1), a minor weakness (rating = 2), a minor strength (rating = 3), or a major strength (rating = 4).

Table 2 External factors evaluation (EFE) matrix

	Internal Factors	Weight	Rating	Weighted Score
Oppurtunities	The growth of millennial population	0.10	3	0.30
	A lot of programmer graduate	0.05	3	0.15
	The growth of technology development	0.10	4	0.40
	Government support for e-commerce in Indonesia	0.10	3	0.30
	The growth of internet users in Indonesia	0.05	3	0.15
	Total	0.40		1.30
Threat	Competition of e-commerce in Indonesia	0.15	3	0.45
	The switch of visitors to another e-commerce	0.15	3	0.45
	Another e-commerce with same feature	0.08	3	0.23
	Government don't give regulation permanent about e-commerce in indonesia	0.15	3	0.45
	Many foreign company invest capital to another e-commerce	0.075	3	0.23
	Total	0.6		1.80
	Total Weighted Score	1		3.10

External factor evaluation (EFE) matrix is a strategic-management tool often used for assessment of the current business conditions. The IFE matrix can be created using the following :

1. List factors: The first step is to gather a list of external factors and divide them into two groups: opportunities and threats.
2. Assign weights: Weight is assigned to each factor. The value of each weight should be between 0 and 1 (or alternatively between 10 and 100 if the 10 to 100 scale is used). Zero means the factor is not important, while one or hundred means the factor is the most influential and critical. However, the total value of all weights put together should equal 1 or 100.
3. Rate factors: Rating is assigned to each factor, and is between 1 and 4. Rating indicates how effective the firm's current strategies respond to the factor. Rating captures whether the factor represents a major threat (rating = 1), a minor threat (rating = 2), a minor opportunity (rating = 3), or a major opportunity (rating = 4). If rating scale 1 to 4 is used, then strengths must receive a 4 or 3 rating and weaknesses must receive a 1 or 2 rating.
4. Multiply weights by ratings: Multiply each factor weight with its rating in order to calculate its weighted score.

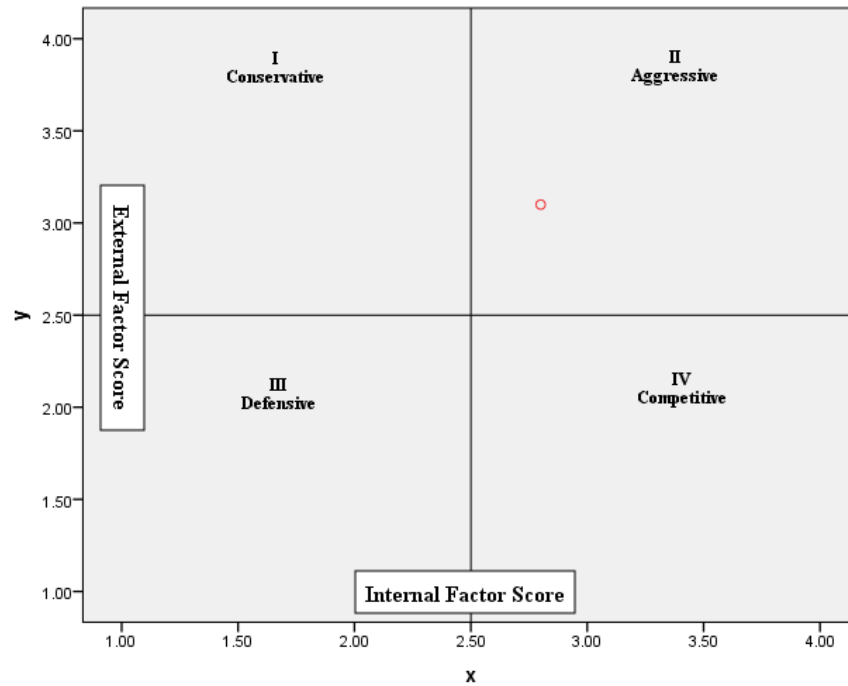


Figure 1 EFE and IFE (SPACE) matrix

Based on the e-commerce expert, each item was ranked and the importance ratio coefficient was identified. The e-commerce expert is academic, practitioner which is know all about this company. More so, based on the results, the score of the internal and external factors was 2.80 and 3.10, respectively. The strategic position and action evaluation (SPACE) matrix is a management tool used to analyze a company's business. It is used to determine what type of strategy a business should undertake.

Table 3 SWOT Matrix

Internal	Strength <ol style="list-style-type: none"> 1. A branding big virtual community in Indonesia. 2. There is work station and work environment which are creative and comfortable. 3. Informal working system in company. 	Weakness <ol style="list-style-type: none"> 1. This company doesn't being magnet for professional worker. 2. The employee are still less competence.
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External	4. An evaluation for work goals periodically.	3. There is no innovation to compete others e-commerce. 4. The server is slowly
Opportunities 1. The growth of millennial population. 2. A lot of programmer graduate. 3. The growth of technology development. 4. Government support for e-commerce in Indonesia. 5. The growth of internet users in Indonesia.	OS Strategies OS ₁ : Branding the company to invite fresh graduate in job career. OS ₂ : Improvement on work facility to support potential new developers. OS ₃ : Improvement on server capacity and supported instrument by generating an efficient technology. OS ₄ : Improvement potential developers corporate with institute and also government.	
Threat 1. Competition of e-commerce in Indonesia. 2. The switch of visitors to another e-commerce. 3. Another e-commerce with same feature. 4. Government don't give regulation permanent about e-commerce in Indonesia. 5. Many foreign company invest capital to another e-commerce		

The SPACE matrix is broken down into four quadrants, where each quadrant suggests a different type or nature of strategy: aggressive, conservative, defensive and competitive. From figure 1 show the company in aggressive strategies. It consider of strength and opportunities to develop the company.

3.2 Improving Strategies Using PESTLE Analysis

To develop this company, PESTLE analysis can derivate strategies of SWOT analysis using politic, economic, social, technologies, legal and environment.

Table 4 PESTLE analysis

	SO Strategies
Politic	Change the development policy within the system.
Economic	<ul style="list-style-type: none"> • Change economic conditions in system. • Price of promoting new service.
Social	<ul style="list-style-type: none"> • Change social conditions within system. • Increase number of visitors in system.

	<ul style="list-style-type: none"> • There are social changes (e.g. social needs).
Technologies	<ul style="list-style-type: none"> • Qualify of employee in the company • Technical and general technologies will be changes
Legal	<ul style="list-style-type: none"> • Change/create new internal legislation • Compliance and enforcement about legislation
Environment	<ul style="list-style-type: none"> • Reducing queue in system • Changing in the global environment

In order to be more competitive in facing global competition, the social e-commerce is required to change its conventional management. Based on the interview with the expert and user of social e-commerce, the social e-commerce has several problems, such as how to get competence human resources, improving infrastructure, the next action for trading forum and to gain trust of customer again. In this research trying to help the social e-commerce to update its strategic management through a combination of SWOT and PESTLE analysis. The SWOT analyze based on internal and external aspect. It is consist strength, weakness, opportunities, and threat. The result of SWOT analysis is depicted in table 3. The PESTLE have six elements, i.e., political, economic, social, technologies, legal, environment. Table 4 shown the developing of OS strategies. The strategy could be used to manage the aforementioned problems.

Conclusion

In this research using SWOT analysis and combine it with PESTLE analysis to formulate a strategic management. It was then applied to social e-commerce so that the social e-commerce can improve its business power and be more competitive. Monitoring and controlling of the proposed strategies have to be conducted in order to assess the effectiveness of the strategies. However, for a future research, the social e-commerce can evaluate based on its service quality.

References

- Cooper, C. L., 2014. *Wiley Encyclopedia of Management*. 3rd ed. United Kingdom: John Wiley & Sons.
- DİNÇER, Ö., 2007. *Stratejik Yönetim ve İşletme Politikası*. İstanbul: Alfa Basım Yayım.
- GÜREL, E. & TAT, M., 2017. SWOT Analysis: A Theoretical Review. *The Journal of International Social Research* , 10(51), pp. 994-1006.
- Ismarani, D. 2014. *Youthmanual.com*. [Online] Available at: <http://www.youthmanual.com> [Accessed 29 November 2018].
- Kaplan, A. & Haenlein, M., 2010. Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, 53(1), pp. 59-68.
- Kolios, A. & Read, G., 2013. A Political, Economic, Social, Technology, Legal and Environmental (PESTLE) Approach for Risk Identification of the Tidal Industry in the United Kingdom. *Energies*, Volume 6, pp. 5023-5045.
- Rastogi, N. & Trivedi, M., 2016. PESTLE Technique – A Tool To Identify External Risks In Construction Projects. *International Research Journal of Engineering and Technology*, 3(1), pp. 384-388.
- Shinno, H., Yoshioka, H., Marpaung, S. & Hachiga, S., 2007. Quantitative SWOT Analysis on Global Competitiveness of Machine Tool Industry. *Journal of Engineering Design*, pp. 251-258.
- Shona, 2016. *Indonesia's largest online forum*. [Online] Available at: www.demystifyasia.com [Accessed 20 November 2018].
- Yuksel, I. & Dagdeviren, M., 2007. Using the Analytic Networkd Process (ANP) in a SWOT Analysis-A Case Study for a Textile Firm. *Information Sciences*, pp. 3364-3382.

Biographies

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