VALUE CREATION IN E-BUSINESS: A STUDY OF TWO B-TO-B COMPANIES

Efendi

Atma Jaya Catholic University of Indonesia, Jakarta, Indonesia

Corresponding author: efendi@atmajaya.ac.id

Abstract

The current study analyzes the study of Amit and Zott (2001) using the nowadays business practices in two B-to-B companies. The companies utilize value constellations strategies in conducting their business. They re-create values for their business customers. The study intends to find new sources of value creation not discovered in Amit and Zott (2001). Amit and Zott (2001) argue that the sources of value creation in e-business are efficiency, complementarities, lock-in, and novelty. The research uses in-depth interview as a tool in qualitative methodology. Two interviews were conducted on the executives from two e-business companies providing services to other companies in the value chain. After analyzing the data, it was found that, there are two new sources of value creation in e-business, which are the value of information and digital ecosystem. The new findings in this research could be due to the focus of Amit and Zott (2001) on B-to-C customers and the absence of fully-fledged digital ecosystem seen in today's digital platforms

Keywords: Value Creation, E-Business, Qualitative Study, Resource Based View, Digital Ecosystem

Introduction

E-business has been growing at a rapid pace. The total amount of E-commerce sales hit $25.6 trillion in 2018 (UNCTAD, 2020). The same report identifies that B to B e-commerce dominates global e-commerce, representing 83% of sales on online market platforms and electronic data interchange transactions. The leading countries in B to B e-commerce sales are the US, Japan, and the Korean Republic. Even though B to C e-commerce represents a smaller fraction of total e-commerce sales, it grew by a high rate of 16% from 2017. Another crucial piece of data revealed by UNCTAD indicates that e-commerce sales already contribute to 30% of GDP worldwide. Therefore, e-commerce and e-business have become an integral part of everyday business.

E-commerce and e-business have become the hub for developing innovation and new capabilities in delivering products and services to businesses and consumers. Multiple technological breakthroughs such as Artificial Intelligence, big data, and the Internet of things (IoT) have become the priority areas of development for some advanced countries, such as the UK, Japan, Republic of Korea, and China (UNCTAD, 2021). Therefore, the focus on the study of e-businesses and how they create value has been warranted. Amit and Zott (2001) have conducted their study on value creation in e-business as early as 2001.

The current paper will discuss how two e-businesses are creating value for other parties. Based on Amit and Zott (2001) study, the present paper will analyse the cases and see whether new sources of value creation in e-business not accommodated in Amit and Zott (2001) findings. But before that, we will discuss the theories related to how the two e-businesses are pursuing their strategies and how e-business is creating value. After that, we will proceed with the research method.

Literature Review

Value chain analysis helps chart how firms operate from the supply of raw materials to the delivery to customers. It ensures that every step needed and every actor needed is there to facilitate the movement of products to the customers, especially at the initial stage of value chain development. The assumption behind the theory is that a firm need to occupy a valuable position which will enable it to generate high income (Normann and Ramirez, 1993). The theory also implied that the firm owns the resources needed to function in the position it occupies. Thus, the theory is also in support of Resource Based View.

As the industry develops, and the value changes, e.g. the pharmaceutical industry after the innovation in DNA technology (see Levin, 2001), some adaptions, innovations, or re-shaping of the value chain is needed to embrace the change. Therefore, the theory of value constellation comes into being. Normann and Ramirez (1993) assert that the firms should not only add value, but they should re-create the value. They should concentrate on the value-creating system itself (see table 1 for more detail differences between value chain and value constellation perspective). Normann and Ramirez (1993) reveal that Ikea is an excellent example of a firm pursuing the value constellation strategy.

Table 1. Differences between Value Chain and Value Constellation Perspectives

Dimensions	Value Chain	Value Constellation
Right strategy	Correct position in the value chain to add value	Reinvent value through reconfiguration of actors
Focus	Company or industry	Value creating system
Market offerings	Physical products	Knowledge/ competencies and services
Role of consumers	Consume	Complete or co-create
Attitude to environmental forces	Passive acceptance	Active involvement

The two e-businesses analyzed in this paper are both using value constellation strategies. In the first case, T-Rec creates value to its clients by providing useful information to monitor and improve their business operations. The second case, Ameera, creates value by facilitating transactions recording and then providing a business report for its clients. Both companies are involved in re-creating value for the businesses in their operation along the value chain.

After conducting a case study analysis on 59 e-businesses, Amit and Zott (2001) concluded that there are four sources of value creation in e-business: efficiency, complementarities, lock-in, and novelty. The four values have been applied by del Águila-Obra, Padilla-Meléndez & Serarols-Tarres (2007) in their study on the online news industry and web content aggregators. The definition of the values are as follows:

1. Efficiency means offering the product with a lower transaction cost compared to offline or other online businesses (Amit and Zott, 2001). This is consistent with the transaction theory of Williamson (1975, 1983, 1989).
2. Complementarities mean a combination of products will provide better value than a single product sold separately (Amit and Zott, 2001). This is consistent with Resource-Based View (Amit and Schoemaker, 1993) and network theory (Gulati, 1999).
3. Lock-in means that the customers are willing to conduct more transactions with the firm and reluctant to switch to other suppliers (Amit and Zott, 2001). It is rooted in the transaction cost economies (Williamson, 1975) and network theory through network externalities (Shapiro and Varian, 1999).
4. Novelty means the new ways of conducting commerce (Amit and Zott, 2001). It is rooted in the Schumpeterian innovation perspective (Schmpeter, 1934).

In addition, Amit and Zott (2001) propose a business model as a unit of analysis in value creation in e-business.

Methods

The current study uses the qualitative method. It uses in-depth interview. The two companies are selected based on the criteria that they have a presence in the e-business. The first participant interviewed is the co-founder and Chief Marketing Officer of T-Rec. The second participant interviewed is the co-founder of Ameera. Both companies provide software that gives service to their B to B clients. The researcher conducted both interviews and lasted for about one hour each. The interviews were recorded and listened to several times to synthesize the findings. The main question delivered to the participants is related with the value created in e-business in the present moment and the future. Validity is a big concern in qualitative research. Neuman (2014) argues that validity in qualitative research is the fair, honest, and balanced account of social phenomena. To achieve validity, the interviewer regularly clarifies the answers from the interviewees.

Result and Discussion

T-Rec

T-Rec is a company that provides an application that help the clients of fast-moving consumer goods (FMCG) companies monitor their business process. The founders of T-Rec reflected on their experience that it is complicated to monitor the stock of products in the stores from the head quarter, even for the stores which are not far away, to come out with their idea of T-Rec. The stock reporting is conducted manually, which makes it difficult for supervision. One way of supervising the workers on the field is through reversed proofing, which means that whatever is reported can be traced back.

The FMCG company (brand owner) distributes its products to the consumers through the salespeople, merchandisers or canvassers who interact directly with the retail outlets, or stores, even the small ones. The other player in the distribution is the sales agency, which supplies the salespeople to the principal. The occurrence of Covid-19 has made the brand owner aware of the fraud made by field workers (e.g., salespeople). During the lockdown in Indonesia, most stores are being closed. However, the report keeps on coming regarding the purchases from the stores. Some field workers take advantage of the absence of supervision to make up the report to their benefit. For instance, one substantial order was divided into many orders named after fake stores to generate a more favourable performance evaluation of salespeople. Thus, many of the stores reported are non-existent. The pandemic has made the brand owners aware that they don't know about the actual active retail outlet and the sales figure in each stores.

Based on this background, T-Rec develops the application (software) using geo-tagging technology, making the reporting transparent and traceable. T-Rec apps facilitate the input and identification of store name, location, owner, and others to monitor the business process. In doing so, T-Rec facilitates the supervision of field workers.

T-Rec also conducts data analysis for the brand owners with the data gained from the field. T-Rec can supply the data on sales volume, frequency of order, and insight marketing or marketing intelligence on the competitors. If the brand owner can know the pattern of ordering in different stores, they will be able to fulfill the need of the stores. Marketing intelligence will allow the brand owners to make the right and timely competitive decisions. T-Rec also has the vision to facilitate micro-distribution – distributing the products to the smallest stores, which may currently not be profitable for the distributor due to its small orders. But, with the aggregation of large numbers of stores, it will become profitable in the future. When the distributors are unwilling to send the goods to the small stores, an opportunity is lost.

Ameera

Ameera is a cloud-based software that users can access to record their transactions. Ameera assists as a cash register or point of sales for the users. The target market of Ameera are the small and medium enterprises, which are still lacking in their transaction recording. Some of them record their transactions on paper, but others don't do any recordings. Currently, the majority of the clients of Ameera come from the culinary and retail businesses. Ameera helps them to record their transactions easily. Overtime, Ameera also provides additional features in its software, such as inventory recordings, breakdown of the components of products sold to calculate the cost of goods sold, employee management, and price promotion. Ameera has also partnered with an e-money platform to facilitate transactions between its clients and their customers.

To their clients, Ameera intends to provide two things. Firstly, small and medium enterprises need to have transactions or business activities recordings. Due to the unavailability or poor business recordings, they have lacked access to funding, taxation, and business partners. Secondly, to increase the quality of SMEs in conducting their business, to move to the next level. Without a sound reporting system, it will be challenging to scale up.

After the SMEs can record their transactions, Ameera then provides the benefit of summarizing the transactions and providing insights and report. This benefit can guarantee that the clients will get the information needed for decision making and a good business report.

Other thing that Ameera intends to do is develop a B to B marketplace. By gathering the clients of SMEs who are using the free version of Ameera's software, Ameera can recruit many clients. Ameera will then recruit strategic partners, such as distributors, brand owners (suppliers), and logistic companies, to develop the business ecosystem supporting the B to B marketplace.

Value Creation in T-Rec

T-Rec's values consist of information that assists field workers' supervision (e.g., salesperson). This information will help the brand owners see the actual condition in the distribution channel. The field workers (salesperson, merchandiser, etc.) who are honest and capable would also get a good result, as it will not take a long time for their supervisor to find out about their performance.

The other type of information is data and marketing intelligence analysis which can help the brand owners make decisions. The Chief Marketing Officer (CMO) of T-Rec indicates that: "If we want to go to war, we have to know the battlefield, how the situation is, the enemy's troops use what kind of gun and artillery. If your enemy has a tank, and you only bring a gun, then you will die… like the brand owners may think that they have a good product, but when they arrive at the store, the neighbor gave the discount of 50%, and you give only 10%. To who do you think the consumers will go? Even if your product is good, the other gave 50% discount…"

Other value is created through giving teaser to the clients, which function to lock in the clients of T-Rec. This value is also found in Amit and Zott (2001). According to the Chief Marketing Officer of T-Rec: "we give them the teaser of what the competitors are doing in the market. Like the story of Harry Potter, when one serial is about to be over, I will provide them with another teaser of a new serial again… If the brand owners see our data, they will be racing one another. Since they have the data, they can counter the competitors' tactics."

Providing teasers to the clients is the reason that T-Rec focuses on hiring data analysts who are good at storytelling rather than spending money on online advertisements.

Value Creation in Ameera

Values provided by Ameera come in the form of software that can assist in recording transactions. After the transactions are recorded, Ameera then provides information in the form of data analytics and financial statements, which help the clients run their businesses. Through the availability of financial statements, SMEs can benefit from better access to financial institutions and improving the quality of doing business. Consequently, SMEs could benefit from scaling up their business based on a sound system. If they don't have a good system, running more than one store will be difficult.

Moreover, Ameera provides the service at a relatively low price compared to the services alike. Some clients even can access the limited version of the software without incurring any costs. This value is the same as the value of efficiency from Amit and Zott (2001). Here is the comment from a co-founder of Ameera: "We are aware that these micro and small businesses do not have the funds or financial capacity as big as medium and large businesses. They can't afford big software like ERP, enterprise software to install. So, with that in mind, we provide Ameera with two options, first full, not paying at all, but some features we limit. Or pay a relatively low price, including when compared to similar products on the market. It is also one of the values that can be given to these micro and small businesses."

Other value it intends to deliver is an ecosystem of the B to B marketplace. Through this marketplace, the suppliers will gather the information to facilitate demand planning. The SMEs will be able to source their raw materials at a lower price and with better availability. The co-founder of Ameera explains further below: "Our current trend is towards that direction, the digital ecosystem. As we know this business is very complex. All cannot be regulated or owned by just one institution. With this digital economy, the ecosystem forms a network, where we can cooperate using a system-to-system intermediary. If, for example, retailers or merchants have a system, distributors have a system, we can talk to each other through digital platforms and help make mutually beneficial transactions. Likewise, distributors to third-party logistics can also talk through one of the platforms that make transactions for mutual benefits. So in that direction, I see the importance of sir… it will be difficult to do scalability if we don't use such an approach… Purchase orders can be done semi-automatically to certain principals or distributors, it will definitely increase efficiency. This means that it does not need to have too much stock, but is also not short of goods. This is actually an algorithm like the economic order quantity found in expensive, large software. Micro-enterprises cannot afford it. But with Ameera, they can get such functions."

The explanation above reflects the value of having a digital ecosystem that can benefit each player inside it.

Discussions

Three sources of value creation from Amit and Zott (2001) are found in the current study. They are efficiency, lock-in, and novelty. Efficiency and lock-in are explained directly by the participants in the study. The value of novelty can be implicitly derived from the interviews. The service provided by T-Rec is something new to the industry. The founders realize a need to monitor the business process in product distribution. Therefore, they launch their new service through their software.

The value of information is found in both cases. The value of information lies in monitoring and market intelligence, while Ameera lies in data analytics and financial report. However, Amit and Zott (2001) largely ignored the value of information due to their focus on value creation for the final consumer. Business consumers will value information to make a sound judgment of a business situation and then make the right business decisions. Moreover, sharing information in the supply chain as planned by Ameera is beneficial in avoiding the loss of an enormous amount of money due to stock-outs, mark-downs, and inventory costs (Gangopadhyay and Huang, 2004).

The value of a digital ecosystem or platform is well explained in the case of Ameera. The central company does not have to regulate or own everything in the digital platform. All companies in the digital platform develop an ecosystem where they can benefit one another, such as between retail and service businesses with their raw material suppliers, logistics companies, financial companies, etc. All of them are connected in the digital platform to facilitate more efficient and complementary transactions. They can engage in co-opetition: competition and cooperation concurrently. Moreover, they co-create value in the ecosystem of digital platform (Hein et al., 2019). This value is also not found in Amit and Zott (2001). They do discuss the value of the business model which is the general concept, which can include any business format. Still, the business (digital) platform is a more up-to-date technological development that creates novel interdependencies between suppliers, distributors, and customers (see Jain, 2014). Amit and Zott (2001) may not foresee the advantages of a business (digital) platform, which may not have been widely exercised in the business world at the time of their paper publication.

Conclusion

Based on Amit and Zott (2001) study, the paper intends to analyze the value creation in e-business. Two companies, T-Rec and Ameera were analyzed. Both companies operate from the perspective of value constellation by creating more value for their partners in the supply chain networks. From the analysis, some new value creation sources do not exist in Amit and Zott (2001). They are the value of information and digital ecosystem or platform. The arguments for the new sources of value creation lie in Amit and Zott (2001) focus on the B to C e-business and the lack of reference for the new e-business innovation in the time of their paper publication.

References

Amit R., & Schoemaker P. (1993). Strategic assets and organizational rent. Strategic Management Journal 14(1), 33–46.

Amit, R., & Zott, C. (2001). Value creation in e-business. Strategic management journal, 22(6-7), 493-520.

del Águila-Obra, A. R., Padilla-Meléndez, A., & Serarols-Tarres, C. (2007). Value creation and new intermediaries on Internet. An exploratory analysis of the online news industry and the web content aggregators. International journal of information management, 27(3), 187-199.

Gangopadhyay, A., & Huang, Z. (2004). Studying the value of information sharing in e-business supply chain management. Journal of International Information Management, 13(1), 5.

Gawer, A., & Cusumano, M. (2008). How companies become platform leaders, MIT Sloan Management Review, 49(2), 28-35.

Gulati R. (1999). Network location and learning: the influence of network resources and firm capabilities on alliance formation. Strategic Management Journal 20(5), 397–420.

Hein, A., Weking, J., Schreieck, M., Wiesche, M., Böhm, M., & Krcmar, H. (2019). Value co-creation practices in business-to-business platform ecosystems. Electronic Markets, 29(3), 503-518.

Jain, R. (2014). Business model innovations for information and communications technology-based services for low-income segments in emerging economies. Journal of Global Information Technology Management, 17(2), 74-90.

Levin, M. (2001). Mastering the value chain. An interview with Mark Levin of Millennium Pharmaceuticals. Interview by David Champion. Harvard business review, 79(6), 108-15.

Neuman, W.L. (2014). Social research methods: Qualitative and quantitative approaches. Harlow, Pearson Education Ltd.

Normann, R., & Ramirez, R. (1993). From value chain to value constellation: Designing interactive strategy. Harvard business review, 71(4), 65-77.

Schumpeter JA. (1934). The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle. Harvard University Press: Cambridge, MA.

Shapiro C, Varian HR. (1999). Information Rules: A Strategic Guide to the Network Economy. Harvard Business School Press: Boston, MA.

UNCTAD (2020). Global e-Commerce hits $25.6 trillion – latest UNCTAD estimates, accessed on https://unctad.org/press-material/global-e-commerce-hits-256-trillion-latest-unctad-estimates

UNCTAD (2021). Technology and Innovation Report 2021. United Nations, Geneva.

Williamson OE. (1975). Markets and Hierarchies, Analysis and Antitrust Implications: A Study in the Economics of Internal Organization. Free Press: New York.

Williamson OE. (1983). Organizational innovation: the transaction cost approach. In Entrepreneurship, Ronen J (ed). Lexington Books: Lexington, MA; 101–133.

Williamson OE. (1989). Transaction cost economics. In Handbook of Industrial Organization, Schamlensee R, Willig RD (eds). Vol. 1: Elsevier Science: Amsterdam; 135–182.