

Value Co-creation by Compulsory Facebook-Community in Corporate Culture: A Case Study Malaysian Logistic Company

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Abstract— The main purpose of this study was to investigate the value co-creation process using Facebook as compulsory by a company. A new value co-creation model was developed showing how Facebook could be successfully executed as a platform for the value co-creation process with the aim of providing the best possible service to the recipients. This research employed an explanatory case study due to its uniqueness, especially for sufficient and in-depth comprehension of the phenomenon. PKT Logistics Group Sdn Bhd (PKT) was chosen for this study due to its exceptional characteristic of declaring itself as ‘Facebook compulsory’ company in business after Facebook. Data were obtained from interviews, direct observations, and a questionnaire survey of the company’s top management, selected employees, and customers. The proposed model has successfully connected the company’s leader, employees, and customers with each other for attaining the ‘Ba’ in new knowledge creation spirally using Facebook as an effective platform. This has resulted in the achievement of a service-oriented value co-creation process. This research has contributed to create a new model of the value co-creation process involving all the stakeholders via a ‘Facebook community’, which could be useful for other service providers. This study differentiates itself from the restricted application of Facebook in business by focusing on Facebook as compulsory in a corporate culture. The new value co-creation process model thru a ‘Facebook community’ is original and might be first of this type study.

Keywords— Knowledge, Ba, Service, Value co-creation, Facebook community

1. Introduction

For the last few decades quality product designing and producing, controlling of the supply chain, marketing and advertising, delivering products, giving maintenance service and so on have been the targets for income generating businesses. However, in this, companies did not realize the significance of developing beneficial relationship with their customers and engaging them in the process of value co-creation. They were paying attention only to offering quality products to customers and bringing these to the market on time, which became obsolete in the case of value co-creation by engaging customers [1]. This was considered as goods dominant logic (GDL), since the value of goods was determined by products [2] and it was evaluated only on the basis of exchange, in which consumers get involved only at the point of exchange [1] rather than in the value creation process [3].

More recently companies have started to realize that for succeeding in customers’ satisfaction, leading to sustainability, merely offering company-centric products is not enough. The value co-creation together with customers by engaging them in ‘every part of the business system’ [4] such as value determining; value designing; value delivering; analyzing, informing, empowering, experience sharing, and knowledge gathering are significantly important for the long term success of business [5]. This practice represents the view of service dominant logic (SDL), where the product itself is considered as a service, and its value is

determined by the customer on the basis of 'value-in-use' [2]. It should be co-created by both parties: the provider (company) and recipients (customers)[6]. Consequently, the service activities require value co-creation among the exchanging parties and a win-win relationship between service providers and recipients on the basis of mutual beneficial value [7]. Also, co-creating value by involving customers creates an emotional tie, with a sense of the co-producer of that particular product/service, thereby they may become loyal to that particular product/service and the company's core partner as well.

The issue is to make the customers co-creators of the company's value, and for this, a system is needed to build as a platform for keeping them continuously connected with the company. What could be the new system as a platform? Advanced technological devices (e.g., smart phones) and social networking systems (SNS) have been changing the way of doing business including service. Among the SNSs, Facebook, Twitter, MySpace, LinkedIn, and Orkut are more popular than the conventionals [8]. Online social networking is building virtual communities, and networks are used as tools to exchange information, share and manage knowledge, connection, and communication in order to manage new and existing relationships [9] in order to value co-creation in customer loyalty and brand equity [10]. Facebook, in particular, is the most popular and highest visited online social network system [11]. Therefore, companies, especially small and medium size enterprises (SMEs), are using Facebook as a platform for social connections and it is more about typical marketing, sales, and branding purposes than value co-creation process as obligatory corporate culture by using authentic framework or model of SNS. And to do so, they are hiring social media analysts and community managers, who are forming their professional organizations within the company to succeed in their effort [12].

The main purpose of this study was to investigate the value co-creation process using Facebook as compulsory by a company. A new value co-creation model was developed showing how Facebook could be successfully executed as a platform for the value co-creation process between a company and its customers, and among the company management and employees with the aim of providing the best possible service. To verify our

newly developed model, we have examined it using the PKT Logistics Group Sdn Bhd, Malaysia as a case example. We have used a qualitative approach to conduct this research. Data were obtained from interviews and questionnaire survey from the company's top management, and from selected employees and customers, and direct observation as well. Additionally, secondary data were collected from both the company's official and CEO's Facebook pages, company website, business magazines, newspapers and other publications, which were related to the case company.

The rest of this paper has been structured as follows (in order): Literature review of value co-creation; Proposed model for value co-creation using Facebook as the platform; Research methodology; Case study of PKT; Success in value co-creation through DMT-PKT's Facebook Community; The model on DMT-PKT Facebook Community; Discussion and conclusion.

2. Literature Review of Value Co-creation

Academics have begun talking about value co-creation only recently, therefore, it is still an emerging subject in the practical field. Companies are very familiar with creating value by goods innovation rather than the concept of value co-creation by adding service. Meaning, value is created not only by what the firm does, but also by getting the consumer to engage with the firm for new knowledge as well as experience in terms of adding service-based value, which is co-creation [4]. To do that a network system is a must as a community dialogue platform.

Some companies are practicing well in co-creating value with customers with the view of service. For example, Nike Inc., the world-leading footwear, apparel, and equipment manufacturing company is promoting its image as a service-based solution provider rather than just a typical product provider by co-creating value with the customers [5]. Hence, by collaborating with Apple Inc., the Nike has innovated a new product as a service called Nike+ shoes (i.e., Nike+iPod Sport Kit). In this, the company has used the Nike+iPod system, which consists of an Apple wireless device that comes with a sensor and receiver. The wireless sensor communicates with the receiver and works exclusively with Nike+ shoes. This mechanism

gives real-time feedback on an individual's performance during exercise [13]. The Nike+ shoes co-creation platform exploits the link between running and listening to music [14]. Users can select their exercise from a personal training list, including foot movements, rhythms, times, distances covered, and calories burned.

This innovative solution connects users through consenting membership in the iTunes and Nike+ online community (itunes.com and nikeplus.com). Members can share experiences and information on their activities individually or together with other participants and service providers from anywhere in the world. In this, the company created a provider-recipient engagement platform. For example, Nike+ is marketed as the 'world's largest running club', in which all users can connect with Nike to receive better service.

Cisco is providing an on-line service for giving its customers open access to Cisco's resources, information and systems, thereby Cisco and its customers can get involved with each other and create a user community [4]. This community works as a platform for dialogue between company and consumer for new knowledge creation in terms of problem solving and designing services as a solution. In this practice, Cisco is engaged to co-create value through the mutual efforts of the firm and its customers with the view of SDL. In this, the contact point of customer and service provider plays an important role for value co-creation [15].

With the inspiration of value creation, adding value to their product and offering 'value packages' [16] to customers by practicing service activities within the business, many pure manufacturing industries are now adapting to a 'servitization' strategy [17]. Servitization is a *transition process of adding service concepts into product-based business in manufacturing companies* [18]. Western economies are tending to move themselves on the basis of value delivered by shifting from manufacturing to more product-service-oriented systems [19][20]. An example is Rolls-Royce, a power systems company. In the past, the company only used to offer aircraft engines, however, today the aircraft engines are the primary tool to provide more beneficial services for customer value creation. Customers can use Rolls-Royce's engines in the way of pay-by-hours or aviation-miles-covered schemes. Additionally, the company ensures extremely dependable services for customers and has created a platform for generating

customers' business without investing mammoth capital expenses [22]. By adapting a service-based business view with its core products Rolls-Royce has locked in customers, thereby it has seen a remarkable change in revenues and market share [22].

From the above discussion, we came to know that while companies are using SDL, servitization, or in some cases IT (User communities, smart phone communication, Web communication) for co-creating value with their customers, there can be limitations to creating an effective and beneficial platform of consumer community in business by a networking system. Such as there may be no company vision or communication with top management or there is no simultaneous communication among top level managers, employees, and customers in terms of the value co-creation process.

Therefore, we believe that SNS can be a meaningful tool to overcome the aforementioned limitations. In recent years, the SNS trend has become dominant for facilitating the social and business information exchange between people and organizations [23]. The traditional networking or social communities are missing in the business circle [24] and the traditional business network or business community is missing in the social circle as well. This current SNS trend has generally been used as a great opportunity, as a medium more conducive to communicating companies and brands, e.g. Pepsi [25] and as a means of direct digital marketing for many firms. It also revolutionizes the ways companies communicate with consumers [26] including employee recruiting and applicant screening [26], yet an actual model for utilizing SNS for companies is not available. It is noticeable that researchers in literature focused on the argument of time wasted by employees using SNSs in the work place [28] and also have started to examine the effect of SNSs effect on business performance [29], especially in advertising, online selling, marketing, and branding [30].

In this study, we focus on Facebook in particular, which has introduced and provided many tools for selling, marketing, and branding purposes such as company's home profile producing, groups, events, social and products ads, likes, and tags [24]. These all are extensively employed by firms, especially SMEs. In addition, Facebook has more potential to become a core

platform for companies, even large organizations, in the process of services development, service delivery, and service quality by manging new knowledge of ensuring active participation and beneficial relationship building among top level managers, customers, and employees. Customer participation is important in the process of value co-creation, especially in the service marketing field [24]. Using Facebook, it is easy to create and manage a company’s consumer community for continuous connection with the market. By sharing their opinions, thoughts, experiences, and knowledge consumers have taken a step further also such as bargaining [31]. In addition, using Facebook as a platform of the consumer community, a company can review its products and services based on customer feedback, and same time it can share its every update for the customers. In doing so, it becomes possible to co-create and add value successfully. For that reason, the current research develops a new model centered on Facebook community as a platform and as a service architecture integrating component [32] to value co-creation process in business.

3. Proposed Model for Value Co-creation Using Facebook as the Platform

For ensuring the innovation of service and a service economy, incorporating all players such as service providers and recipients, and others involved is necessary depending on the context. In this, the core elements are the service ecosystem and the service platform [33]. The service ecosystem is a community of interacting partner-organizations and individuals, including customers (service recipients) who can co-evolve their competencies and roles by complimenting mutual strengths [34]. SDL provides the clarification regarding the service ecosystem, which is the resource integration from social and economic aspects, by connecting the ‘actors’ (producers and consumers) with the aim of sharing institutional logic and mutual value creation by service exchange [35]. The service platform ensures resource liquefaction and density. It is an integrated structure comprising both tangible and intangible components, including facilitating the actors and resources for interaction [33][35].

The broadened conceptualization of service through a tripartite service concept [36] also supports the interrelationship among service

ecosystem, service platform, and value co-creation. Again, [37] argued that firm’s success depends on its more and strategic network system, thereby new knowledge is created in the relations embedded in these networks. However, it is notable that a platform is essential for exchanging and delivering service in a service ecosystem focusing on the mechanism of networking in the process of co-creating value [33].

Therefore, to construct that platform a digital infrastructure is mandatory. It also ensures a wide range of value sharing forums [33] by the active participation of beneficiaries (e.g., customers) and the provider (e.g., the organization) in the process of business operation [36].



Figure 1: A model for value co-creation using Facebook as the platform

Figure 1 shows our proposed conceptual model of service-based value co-creation using Facebook. In this, we have revealed Facebook as a digital platform for creating a beneficial relationship among all involved in the value co-creation. The participants are both providers (all personnel from the company) and recipients (customers, other followers) involved in the process of knowledge gathering and idea generation for innovating service as the value. Because Facebook is the most popular and appropriate social networking media to connect people for sharing and exchanging information of common interests without any borders. And thereby, using Facebook, both providers and recipients are able to review and utilize all the information depending on the content and their interest. This might not be possible using other social networking media.

Our service-based value co-creation model connects the three parties involved- the top

management of the company, its employees, and its customers. One of the main characteristics of this model is the active participation of top management (e.g., CEO). Here, we call it the visionary leader, because he/she is taking initiative with action by proposing the value via Facebook which, consequently, inspires his employees and outside followers including customers to join in the debate or dialogue with their voluntary inputs. By doing this, the decision maker is obtaining the “original” value from the employees and customers directly in a virtual setting (via Facebook).

As shown in figure 1, in the three-way relationship model, the first one links the visionary leader (top management) with his employees for value co-creation by utilizing their experiences and new ideas. This leads to the empowerment of the employees, making them satisfied as well. The second links the visionary leader with customers for value co-creation by recognizing customers' needs and expectations. This leads to their satisfaction and motivates them as co-producers of the new or improved service. The third links employees with customers for value co-creation by delivering value, maintaining interactive relationships, gathering and sharing knowledge and know-how, and continuous updating of information from both individuals and competitors. Thus, the three-way interconnected relationship creates a ‘Ba’. The ‘Ba’ can be thought of as a shared space for emerging relationships and the space can be physical, virtual, mental, or any combination of these [38]. It creates a platform that provides opportunity to gather individual or collective knowledge. Thus, ‘Ba’ is considered as a context where knowledge can be exchanged and, as a result, provides the opportunity for new ideas to emerge [38]. In this study, the ‘Ba’ is enabled to create an environment and provide a space for enhancing manualized service for knowledge management and idea generation spirally among the top level managements, employees, and customers. It is the basis of various factors such as the business situation, problems to be solved, and the requirements of both customer and provider [39], thereby innovating service and co-creating value.

4. Research Method

This research employed a case study due to its uniqueness, especially for sufficient and in-depth comprehension of the phenomenon. The company

chosen for this study was PKT Logistics Group in Malaysia (PKT). This was due to its exceptional characteristic of declaring itself to be a ‘Facebook compulsory’ corporate culture based company as the rare method of communication, especially in business. There were not many ‘Facebook compulsory’ companies in the world to enable us to conducted multi-case studies, but this company (PKT) fitted our research purpose perfectly and thus was appropriate for our research.

Prior to conducting in-depth interviews with company personnel, the authors first met PKT’s CEO and MD to explain the purpose and procedure of the study and gain their cooperation. The authors also identified the employees to be interviewed (respondents of this study). Prior to the start of the study, a semi-structured interview protocol was developed from a review of the literature. The purpose of the interview protocol was to determine what actions the company had taken in value co-creation in service using Facebook. The interview protocol was divided into three sections: (1) respondent’s information; (2) the usage of Facebook in PKT; and (3) value co-creation activities through Facebook. A series of face-to-face interviews was done on both an individual and focus group basis in April 2017. The subjects were questioned in regard to their actual experiences in the work place. The interviews lasted for approximately one and half hours for each respondent and two hours for each focus group. More details about the respondents involved in this study are shown in Table 1. Additionally, authors observed directly the company’s Facebook uses in operation and management activities around two years, and a questionnaire survey of selected customers.

Table 1: Summary of the Respondents

	Respondent	Position	Years of Employment
1.	DMT	Group Chief Executive & Managing Director	21
2.	Employee A	Group Chief Operating Officer	8
3	Employee B	Director of CB & Trade Compliance	40
4.	Employee C	Head of Key Result Area	10

5.	Employee D	Senior Manager of Human Resources	7
6.	Employee E	Head of Social Media & Promotions	6
7.	Employee F	Head of Front Desk	16
8.	Employee G	Front Desk officers	2
9.	PKT's Customer A	-(undisclosed because of company policy)	-(undisclosed because of company policy)
10.	PKT's Customer B	-(undisclosed because of company policy)	-(undisclosed because of company policy)

The data analysis approach performed in this study was a thematic analysis using Nvivo11. Thematic analysis is a method to classify, examine, and convey the patterns which are themes within the collected data. Validity and reliability of the instrument are also very important to maintain the accuracy of an instrument prone to defects. Trust and authenticity is a measure that refers to the stability and consistency of the findings, whether it can answer the research questions that have been built [40]. To establish the validity and reliability of the findings from this study, four key techniques were applied. These were credibility (internal validity), transferability (external validity), reliability, and trustworthiness. More information on these is given in Table 2.

Table 2: Summary of the procedures used to ensure the validity, reliability, and trustworthiness of the finding

No.	Criteria	Technique	Research Stage	Action
1	Credibility (Internal Validity)	<ul style="list-style-type: none"> Study participation Triangulation Checking the respondent 	<ul style="list-style-type: none"> 1 month of data collection Upon completion of data collection 	<ul style="list-style-type: none"> Various sources of data, observation, interview, and documentation.
2	Transferability (External validity)	<ul style="list-style-type: none"> Detailed description Procedure coding and analysis 	<ul style="list-style-type: none"> Data collection Data analysis 	<ul style="list-style-type: none"> Analysis report
3	Reliability	<ul style="list-style-type: none"> Ensured no biases 	<ul style="list-style-type: none"> Data analysis and report 	<ul style="list-style-type: none"> Peer review among research team Research report
4	Trustworthiness	<ul style="list-style-type: none"> Developing a protocol 	<ul style="list-style-type: none"> Data collection Data analysis and report 	<ul style="list-style-type: none"> Research protocol Handling data with thematic analysis, coding and categorized Peer review among research team Research report

5. Case Study of PKT: Compulsory Facebook User for Value Co-creation

5.1 Company Background of PKT

In 1974 Dato' Tio Sook Keo founded a trading company named Port Klang Trading at Shah Alam in Malaysia. Today this company is still operates under the name PKT Logistics Group Sdn Bhd (PKT) with the motto of *"We serve...with passion"*. At present, PKT is considered as a leading logistics company not only in Malaysia but also in the region. To achieve this position, PKT had to differentiate itself by changing its business philosophy from the typical way to the service concept view. For this, they are strongly committed to providing a total logistics service-based solution to their customers by mutual cooperation among stakeholders. The services included are: end-to-end design, implementation, and operation of logistics solutions in freight

forwarding, customs brokering, contract logistics, haulage, and distribution management for large and medium-sized national and multinational companies. Behind this change and the eventual success of PKT, Dato' Michael B.Y. Tio (DMT), Group Chief Executive and MD of the company played a key leadership role. Until 1996, PKT's annual turnover was only RM 2 million. DMT aimed for more annual turnover and market share to turn his company into a logistics business leader in Malaysia as well as to attain an international reputation in the global logistics market. *But how?* To find this answer, he decided to differentiate his company from its competitors by focusing on the service oriented view with the philosophy of "Dream of it, Talk about it, Plan for it, Work on it, and Get it."

To achieve this, DMT redesigned the business model focusing on service-based value creation and implementing it both internally and externally. He realized that employees and customers are equally

important to design and determine the service value as well as its quality. DMT wished to connect customers, employees and himself together to communicate more efficiently and effectively for sharing and gathering knowledge, information, plans, experience, and so on among all parties, with the aim of creating a 'flat-management system' and offering a desired solution to all parties. In doing this, DMT relied on ICT, specifically using Facebook as a communication tool. He successfully created a "DMT-PKT Facebook community" as shown in Figure 2, where the entire staff was compelled to use Facebook including to conduct and record meetings. In short, the entire organization became 'Facebook OK'. This was a unique approach and a successful implementation of the compulsory usage of Facebook in a corporate culture.



Figure 2: Facebook is compulsory in PKT corporate culture

PKT has already built a strong brand image in the logistics industry in Malaysia as well as in the region. It has been transformed into a limited company; increased annual turnover 300 times higher than before, and is now ranked among the top 5 in Malaysia. Furthermore, PKT is expanding its business with international collaborators. Kia Motors, Hyundai Motor Company, Mitsui OSK. Lines Ltd (MOL), Mazda Logistics Co (Malox) are a few among the company's international partners.

5.2 DMT-PKT Facebook Community

After realizing the high popularity of the Facebook as the social media, DMT also recognized its potential in the corporate sector, especially for establishing a flat management structure and

effective communication within PKT. Hence, PKT has been a 'Facebook compulsory company' since 2009. In fact, PKT allow all social networking sites to be accessed through their network as at PKT. *In PKT, Facebook is compulsory and if anybody are not in Facebook, then he or she is not eligible to work at PKT! Even cleaners of PKT do have their own Facebook account!* (PKT's Open Communications; retrieved on March 29, 2019 at <http://pktgroup.com/index.php/culture/open-communications/>)

DMT thought that Facebook might create a working environment with having fun in PKT. He also wanted to keep his all employees constantly updated on what is going on both at work and outside. In addition, DMT wanted to communicate with PKT's customers, his mentees and the community to inform them about his business or related matters. He added the advantages of Facebook over other social media like Twitter; Instagram; Whatsapp. He believes that within in the 30 years there will be no more mainstream media except social media. DMT wanted to create a happy, cool, and fun working environment in the company. Hence, he decided to create the 'PKT Logistics Group Sdn. Bhd. and Dato' Michael Tio' Facebook page, which we refer to as the 'DMT-PKT Facebook Community'. He structured it appropriately and set some rules which could transform all the users' mind sets for making an effective use of Facebook in a corporate setting. In his open Facebook community, the total number of followers was more than 800,000 as of May 1, 2017. In addition, there are some other Facebook pages in PKT, which are department-based (e.g., Human Resources) and management-based (for restricted users).

The main characteristic of this DMT-PKT Facebook Community is the continuously updated information regarding PKT, such as its upcoming service and benefits for employees, customers, and society. It also covers the DMT's way of thinking to develop business for new era, his philosophy for attaining success in business and successful experience, etc. In particular, there are different characteristics between DMT's own and the PKT Facebook pages. DMT's pages have postings which are more about entrepreneurship, leadership, and corporate social responsibility (CSR) while the PKT page is more about the company's business operations.

Currently at PKT, most of the operations such as

meeting arrangements, customer linking, marketing, value proposition, selling, CSR programs, mentoring programs, new product launches, financial reports, event organizing, data storage, new recruitment, and so on are managed by the DMT-PKT Facebook Community. PKT also believes that Facebook is a great way to build the brand of the business. The DMT-PKT Facebook Community currently has over 80,000 followers, which is like 80,000 people talking about PKT, resulting in its promotion.

5.3 Success in Value Co-creation through the DMT-PKT Facebook Community

The analysis of the data collected from PKT has yielded some interesting results. The themes were based on the research questions which focus on the value co-created by PKT through its Facebook community. The themes were divided into three categories: value co-creation between DMT and customers; between DMT and employees; and between employees and customers. The purpose of developing these three themes was to provide a basic analysis platform related to an understanding of the respondents to the research questions of this study. The discussion of our findings are described in the following sections.

5.3.1 Value co-creation between DMT and customers

From the data results, it can be concluded that the value co-creation between DMT and customers could have occurred in multiple ways, such as effective communication; value proposition and determination; needs and demands recognition; and transfer of new knowledge among each other. As mentioned before, the customers of PKT were very active in the DMT-PKT Facebook community. They were interacting with PKT via Facebook postings and sharing. Also, they were reviewing, commenting, and liking the PKT activities. In this connection, two PKT customers' responses can be cited:

"most of PKT activities shared by them are well enough for us to get inspiration" (Customer A).

"the interactive and encouraging post is making us to put 'likes' and also to 'comment as well as review' based on their activities and perception given the on DMT-PKT Facebook community"

(Customer B).

The findings from the interviews with PKT employees also indicated that DMT always had helping his customers in his mind. DMT believed that the customers should get to know PKT first. In this connection, one employee (Respondent B) mentioned:

"Once they (customers) got to know us through Facebook, they will start to communicate through it. They will create (their own) Facebook accounts to interact with us".

This was also supported by another employee's statement (Respondent D):

"DMT wants the customers to know about our company (PKT) before coming to us. This will make them have the confidence towards the company, before dealing in the business. We want the customer choose us because we are reliable. The first thing is the customers' must understand our company, after that if they feel that they can work with our company, they could ask for the quotation".

Additionally, regarding the knowledge transferred from PKT to customers or from customers to PKT, one employee (Respondent B) added: *"Facebook is the platform that PKT could share and transfer the knowledge to the customers and at the same time gathers the successful experience from them. This is because all the postings, videos, comments, and reviews on the Facebook are recorded and can be traced."* Then, PKT or its partners can apply those postings, videos, and comments as knowledge to co-produce value. An example is the issue of retaining employees in the company. In this connection, DMT mentioned:

"I think a lot of customers have issues in retaining their employees. So, for those customers that follow us on Facebook, they see the way we create our culture. These are the methodologies that they do not know that can help them to actually motivate their staffs to work. So, a lot of posting's comments from my staffs will be the feedback for them to read and understand what DMT did is positive".

culture from a typical logistics service to a total solution provider in terms of value chain perspective. This covered not only the regular items such as freighting, custom clearance, trucking, warehousing, and outsourcing, but also areas like procurement service (on behalf of clients), and sub-assembly service (picking and packing for the clients). In this, innovating and adding new service was the core. With this view the PKT leader started to work together with both internal (employees) and external (customers) parties by creating a platform for exchanging knowledge and experience. Hence, he created the DMT-PKT Facebook Community (as shown in Figure 3) as a platform for continuous connection and interactive relationships amongst himself, employees, and customers. DMT made this platform mandatory for his employees to communicate with the customers. He chose a social medium for a corporate environment, more specifically, Facebook, considering its wide popularity and merits. The top decision maker of PKT believes if his company wants to remain competitive, but does not adapt to the fast information flow, in this case using Facebook, then the company's employees and customers will not be able to succeed in the process of value creation. As a result, the company may not be sustainable in the long term.

The DMT-PKT Facebook Community set up a three-way relationship among DMT and PKT employees, DMT and PKT customers, and PKT's employees and its customers. This platform was used in PKT by encouraging all the members/parties to report/update every single information, idea and experience, and anything related to the business for a just-on-time solution. More specifically, the DMT-PKT Facebook community was effective as the 'Ba' or 'space' for knowledge gathering and new knowledge creation for service innovation. In this, DMT has been playing the leading role by showing the ways of new knowledge creation for service-based solution, sharing the successful experience amongst PKT's employees and customers. For example, in the case of interaction between DMT and his employees, DMT shares his ideas, experience and knowledge with the employees regarding value proposition for them and customers. Furthermore, he uses Facebook live dialogue to direct his employees and develop close relationship with the customers as well. On the other hand, the employees also share their experience, ideas, and customer data with DMT to verify the proposed value via Facebook live dialogue. In the DMT and PKT customers' direct interactions (via Facebook live dialogue), he pays special attention to learning their needs and

expectations which becomes the customer value. In this way, the customers can also contribute to design the new value. In this, he also shares his experience and knowledge with the customers with the aim of empowering them as the partner of his company. Furthermore, DMT contributes in the consumer's well-being by creating a brand image of his customer using the Facebook. In the PKT employee-customer interaction, the employees recognize customers' needs and expectations to understand customer value and its delivery process. Also, the employees share their experience, knowledge, and business information with customers via Facebook live dialogue. In response, customers provide them with the valuable information about their opinion, thoughts, critics, reviews, experience, and market update which are useful for PKT to determine and design the new value.

In this way, all possible and valuable information combined with facts and a variety of knowledge and practical experience are collected and gathered together from all the parties followed by an analysis (by PKT) which eventually creates new knowledge and provides a service-oriented solution according to the customer-determined value. As a result, the effective solution is co-produced by all the participating members of the DMT-PKT Facebook Community due to their active participation and the beneficial relationship among the three parties. This means, value is co-created for the recipients by using the Facebook Community and as a result, benefiting PKT to continue its sustainable growth and eventually became one of the leading logistics companies in the region.

6. Discussion and Conclusion

In the recent years we have witnessed around social media to influence the questionable uses and has on people's personal life style, which may effect on society and quality of life. For example, Facebook had allowed third-party apps to access data on their users' unwitting friends and leaked information without users knowledge were used for political campaigning and and influencing voters at democratic elections to help to elect one specific candidate as president according to the case of Cambridge Analytica IT service management company [45]. It has revealed by cyber security researchers that millions of Facebook user records including users' Facebook IDs, likes, comments, feedback, and account names have been found on a database of internet, uploaded by Mexican digital publisher Cultura Colectiva, which was discovered

on Amazon Web Service (AWS) cloud servers. The Pool Party database (Los Angeles-based social network app) gather users names, email addresses, photos, friends lists and likes of around 20,000 additional users was also found [4]. Again, a terrible mass shooting at two mosques in the city of Christchurch, New Zealand on March 15, 2019 by an extremist who killed 50 and more than dozens injured was live-streamed on Facebook and shared around social media [47]. Hence, using social media can effect on business and society easily with the impact of economic, commercial, political, public policy, public attitudes, and quality of life. In this, developing worthy system to use social media with secure manner and corporate positive ethics to adapt it at the aim of attainment competitive advantages is significant.

However, this study has created the key elements of the service-based value co-creation model are: 1) the visionary leader; 2) employees; and 3) customers. They are connected to each other for attaining 'Ba' with the aim of new knowledge creation spirally using the Facebook platform in the aspect of service-based value offering to recipients. The significance of this new model is that top managers (decision makers) are directly interconnected with both customers and employees, who are the value-determinants, value-designers, and value-deliverers via the Facebook platform. Thereby, the decision makers can remain updated in real time about the current and latest situation of the company's business and issues. In addition, it includes existing capabilities and shortages (e.g., knowledge, skills, and resource gaps) which also helps management decide on how to minimize the diagnosed gap for gaining competitive advantages and setting the future direction of the company. As a result, the outcomes become more beneficial for the company in terms of employee motivation, customer engagement, risk minimization, successful experience gathering, understanding the actual issues, high possibility to deliver customers' desired services, improving brand images, and finally increasing market share with revenue. Many firms are attempting to use Facebook as a platform for customer connection but in many cases companies are unable to successfully bring and hold the three parties (decision makers, employees and customers) together and create a 'Ba' as PKT has successfully done. This could be due to the non- or ineffective involvement of the leader (MD, CEO or Manager) in this practice. Only this kind of

positive and successful usage of Facebook has made PKT different from other companies and signified itself as a service-based value co-creator. In consequence, this research and developed model could be useful for other organizations in the aspect of using Facebook or social network as platform of new knowledge creation in offering service-based value to the market. Additionally, it can give an opportunity to debate in academic on the way of using Facebook or social media in the business and economy.

Acknowledgement

The authors gratefully acknowledge all sorts of cooperation by Dato' Michael Tio, Group CEO and MD of PKT Logistics and a part of the financial support from the company in completing this study successfully. The authors also acknowledge the Institute for Management and Business Research (IMBRe) of Universiti Utara Malaysia (UUM) for awarding us with the Agensi Luar (Dalam Negara) Swasta Grant 777371/6655 to carry out this research project.

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