Value In Exchange: The Importance of User Interaction as the Center of User Experiences

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In this era of technology, the co-creation approach has become a new development trend. In light of this, most design businesses have transformed their development strategy from being goods-dominant into service-dominant, where more attention is given to the end-users and their roles in the development process. As a result, the conventional development process is being replaced with a more cooperative one. Consequently, numerous studies have been conducted to explore the extension of the co-creation method in the design development process. Most studies have focused on issues found during the production process. This study aims to investigate potential values established during the pre-production process, known as the 'unique value proposition'. User involvement is questioned and crucially debated at the entry level of the pre-production process in the provider sphere, where the creation of value in-exchange took place. Thus, this paper proposes a potential framework of the co-creation approach for Malaysian interactive multimedia development. The framework is formulated from both parties involved: the users and designers. The framework will clearly give an explanation on the value of the co-creation approach and could assist relevant design industries/companies in developing a blueprint for the design process. This paper further contributes to the literature on the co-creation of value and digital ecosystems.

Key words: *Co-creation method, co-creation framework, co-creation, co-production.*

Introduction

The co-creation approach is a concept that has been discussed extensively. It concerns the participation of users with designers or firms, while focusing on customer services system

rather than products. Nevertheless, design areas today have started to experiment with the co-creation approach and strategy in production, and this approach has been discussed in previous literature and research (Hamid & Idris, 2014).

The marketing industry experienced the co-creation values approach earlier than the design industry, and academic research has found that the co-creation is a dominant feature of establishing competitive market values and creating innovative ideas (Galvagno et al., 2014). Subsequently, most debates were circulated on issues regarding values created by customers while engaging with designers and specifically during the production process. This is due to the popular belief that the co-creation of value can only be created at shared areas which are also known as the customer sphere (Grönroos & Voima, 2012). Conversely, not much research has been conducted about the potential value that can be created at the earlier stages of the production process. Therefore, this study aims to investigate users' participations with the designers at the inception of the pre-production process.

Rather than provider facilitated users at the entry level, user's involvement at this stage is crucial to build the right foundation and to ensure minimal amendments at the end of production. In this light, potential or envision values are an increasingly important area in the co-creation (Galvagno et al. 2014). The data gathered and analysed shows that early participation of designer engagement with user could help create new potential value and an "exchanging offering" at value in-exchange spheres. Thus, it is hoped that the co-creation approach will bring new directions and perspectives to the design industry and present competitive and innovative ideas for the future.

Literature Review

As a developing nation, Malaysia has been rigorously trying to become a developed country by the year 2020. Despite the many plans and government strategic planning that has been executed, compared to other Asian countries like South Korea that is known globally for its stellar product development and services, Malaysia still lacks of innovation and competitiveness in services and product development (Anaraki et al., 2016).

Co-creation has been one of the most studied methods in Malaysia for the past few years. In this sense, many researchers from various fields have studied and researched the co-creation method as a platform to increase customer satisfaction and to gain a new competitive advantage (Harozila et al., (2019). A number of studies have found that the co-creation approach is multifaceted and explicit. Moreover, some studies have been conducted to ensure the co-creation of value across all production processes (Grönroos & Voima, 2012). Hence, the value exchanges do not exist during a provider sphere, where an interactive multimedia company facilitates a comprehensiveness documents during this pre-production process. In

this regard, a potential value still can be created. Moreover, it is hoped that this will somehow shape a new direction and envision the true potential value (Grönroos & Voima, 2012).

Customer Behaviours and Personal Contexts

User ideas and personal opinions are two important aspects for building the needed or expected potential values in a concept that is shared than kept. In this regard, Grönroos & Voima (2012) posited that users' opinions play a vital role in a product's development, in the intervening time attitudes, and affection. It will shape the product outcome based on the customers' desired needs. Therefore, interaction activity during the production and post-production process ensure any opinions taken will be applied as values. The co-creation process that exists at this moment is considered as precious values that lead to the comprehensive production process and innovation.

Customer affection and attitudes are also considered a value that will change how a multimedia company perceives a product and the value embedded in the product. However, interactive multimedia companies in Malaysia still fail to realize this nowadays. The world-wide market service-oriented practices depend on innovation to create desirable products to cater to customers' demands. Therefore, competitiveness is a more powerful driver that leads interactive multimedia companies to succeed.

Value In-Exchange and Interaction of User Experiences

Although the notion of value creation suggests that value of co-creation can only be achieved during the products usage and interaction, value can be actualized through rich dialogue and brainstorming sessions. Potential value can also be created and envisioned during the early production process. Moreover, the exchange of shared knowledge values could also occur in the provider sphere instead of customer sphere only. Although Grönroos & Voima, (2012) suggested that in a provider sphere, the interaction between the designers and users is considered as a value in-exchange. It is argued that no truly co-created value existed at provider sphere. Grönroos & Voima (2012) also suggest that co-creation values only exists in the customer sphere or during the production process.

To become competitive leaders in this new market, companies tend to invest more on workers or production system and less on how to tackle issues of what a user really needs. According to Grönroos & Voima (2012), "the role of the customer evolved from self-service, through the firm-scripted staging of customer experiences, to co-designing and finally co-production of service". This suggests that users' involvement with the firms or the designers are changing from their role as passive customers to active customers. According to scholarly literature, it is important for a firm to care what a customer really wants in their products or

services offered. Therefore, a company or firm must act as operant resources by facilitating and providing comprehensive documents to advise designer to interact with customer or user.

According to Grönroos & Voima (2012), the core of value creation is a service experience as a result of social interactions with a context that surrounds the users. Contextual experiences could encompass a user's experiences when interacting socially while using a product. For example, users' contextual experiences are their memory, thoughts, personal opinions, and personal contextual behaviours. Users' accumulated experiences while using or accessing interactive multimedia products is the core of value creation. Here, users accumulated experiences, such as user behaviours and individual socially interacting context, in the firm's sphere at the early stages of pre-production. This could occur when the interaction with the designers provides a better critical understanding and empowers the firm's operant resources, such as comprehensive documents, which will create and envision future potential values (Grönroos & Voima, 2012 and Harozila et al., 2019).

Methodology

As this research focuses on Malaysians' understanding of values in-exchange during the pre-production process, the qualitative research method will consist of observation and face-to-face interviews. The sample consists of 20 respondents from three multimedia companies who are participating on a voluntary basis and were selected based on set requirements. The set requirements demand each multimedia company provide three user representatives with experience working or collaborating in multimedia production. In addition, three designers having 3-5 years' experience in multimedia production were selected from each participating multimedia company.

The interview sessions conducted with participants lasted for 45 minutes to one hour. To clarify the interview data, observations were conducted during product reviews. This method was chosen to gain a deeper understanding of what a user really needs in a product, as the value in exchange for them. Interviews and observations enable researchers to get close to respondents to understand their behaviour and actions. Observation methods were applied during the product reviews for obtaining information without disturbing the process work flow.

The interview sessions were also conducted with representatives of users of interactive multimedia products. The first set of analyses examined the impact of user involvement, in which three out of five respondents participating in the interview session commented that their involvement in the pre-production process helped to avoid the early mistakes usually made by designers in the initial stages of the production flow. The notion of value-in-use has been widely discussed amongst academicians and marketing practitioners, which clarifies

that value co-creation is the value-in-use achieved by users during the use of the products. Therefore, users' experiences are accumulated from past and current experiences. These experiences include envision experience of users before using the products and categorized as accumulated experiences and the core of co-creation value (Grönroos & Voima 2012, and Harozila et al., 2019).

The Outcome

Figure 1 shows the conventional system workflow adapted from one of the participating interactive multimedia companies in Klang Valley, Malaysia. The system workflow of producing an interactive multimedia product is shown in this figure. A study on the visual documentation provided by the mentioned multimedia company showed that comprehensive documents have been provided and facilitated by the firm for users as at the start of the project in the "user's analysis" requirement phase. Interaction and engagement during a discussion on the contexts of information needed in multimedia products have been discussed, and a content writer was responsible to make sure the "content script" was produced according to the company's strict rules and regulations.

Figure 1. Conventional system workflow practiced by multimedia company in Malaysia
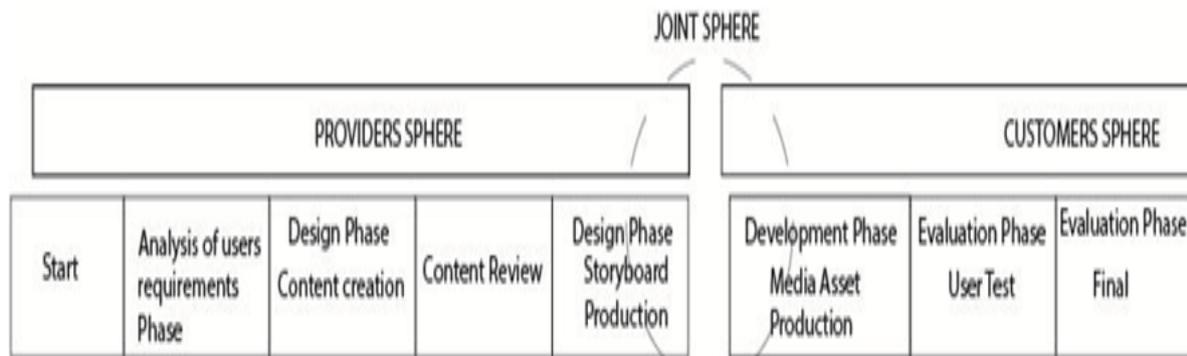
During a session of product reviews conducted at one of the participating multimedia companies, an observation revealed an interaction between the user and the instructional designers related to media material gathering and the pedagogy theoretical content. On the contrary, visualization technique and engagement are not applied in the conventional system workflow. For this reason, isolating designer and user at these stage is a mistake. Thus, visual engagement should be apply within the system workflow at the pre-production phase to ensure real-time communication between designer and user. These interaction and engagement could lead to new en-visioned potential values or value in-use being apply at the pre-production phase.

Alternatively, the conventional pre-production process consists of activities such as sketching and ideas development by the designers and does not involve any user participation or interaction with any of the user's personal contexts. According to Grönroos & Voima (2012), without user interaction, any potential value creation is lost. Thus, the value creation at value in-use can only be actualized at the customer sphere and not at the pre-production process. This is because customer engagement should be included in pre-production and production processes where design and prototyping are conducted. Value creation also includes the post-production process, final design testing, and products review by the firms' representatives, such as the marketing department, designers, in addition to the input of users. The final review mainly focuses on the amendments and corrections to be made after their analysis.

Figure 2 elaborates on how value creation plays a vital role in the business model. Equally, the proposed business model, and value creation is expected to be developed by customers and providers under the key resources (KR) section. Figure 2 refers to the Business Model Canvas adopted from Alexander Osterwalder's (2010) book on Value Propositions Design. The business model canvas was placed in this study to present how values are created after users' experiences which are primary to value creation. According to the data collected and analyzed, the operant resources facilitate and create users' accumulated experiences and interactions. Thus, these interactions will create experiences and will be analyzed if they lead to co-creation value.

In this regard, the key partners (KP) focus on the strategic alliances with collaborators such as customer representatives, subject matter experts (SME) and consultants, while the key activities (KA) focus on problem-solving in terms of content and design, the product creation and delivery. The involvement and participation of users is critical at this stage. It is facilitated by the firm's representatives and will lead to potential value creation under certain circumstances (Galvagno et al., 2012). The table below illustrates the unique potential value propositions that exist within the design and development process in the provider sphere, whereby user interaction experiences are taking place. Moreover, user interaction experiences engage with firms to facilitate activities in the early design workflows in the areas of design concept, storyboard production and brainstorming sessions. It can be concluded that a joint sphere that existed within the design and development process in the provider sphere supported a statement made by Galvagno et al., (2012) to the latest findings of this research.

These results are consistent with the data obtained in the interview sessions in which one respondent reported that their early involvement in the process of idea brainstorming created unexpected values. Strong evidence of unexpected values was found and was significant to this study. In addition, the unexpected values resulted from users' interactional experiences with the designer. SSpecifically, user intervention in the design sketching and ideas development phase reveals that the design direction and concepts are more dynamic and

livelier. However, the conventional interactive multimedia work flow that separated users and designers at this level indicated a replication of the conventional process which is passive and parallel.

Figure 2 shows the results obtained from the preliminary analysis of user interaction experiences and engagement with the early design process. As the bottom half of the tables shows, a key resources (KR) is a platform for planned activities and is also facilitated by the firm to create unique value propositions and designed to fulfill user's needs. Thus, the existence of potential values resulting from user interaction experiences should be measured to better understand suitable activities that can create potential values.

What stands out in the figure is a unique potential value (UPV), and strong evidenced shown that user interaction existed between user representatives and designers which co-creates new values. These new values are the result of comprehensive facilitaties made available by a firm or provider, and the presence of certain circumstances. A positive correlation was found between the potential values created and the relationship developed between users and designers (Harozila Ramli et al., 2019). Moreover, studies have consistently highlighted the importance of creating experience through interactions. As suggested by Galvano et al., (2012), "value as value-in-use cannot exist before it is created (or emerges) from the usage process, where it is accumulating, and therefore cannot be assessed before usage".

Figure 2. The business model canvas for potential values; co-value creation

The Business Model Canvas; Comprehensive Process
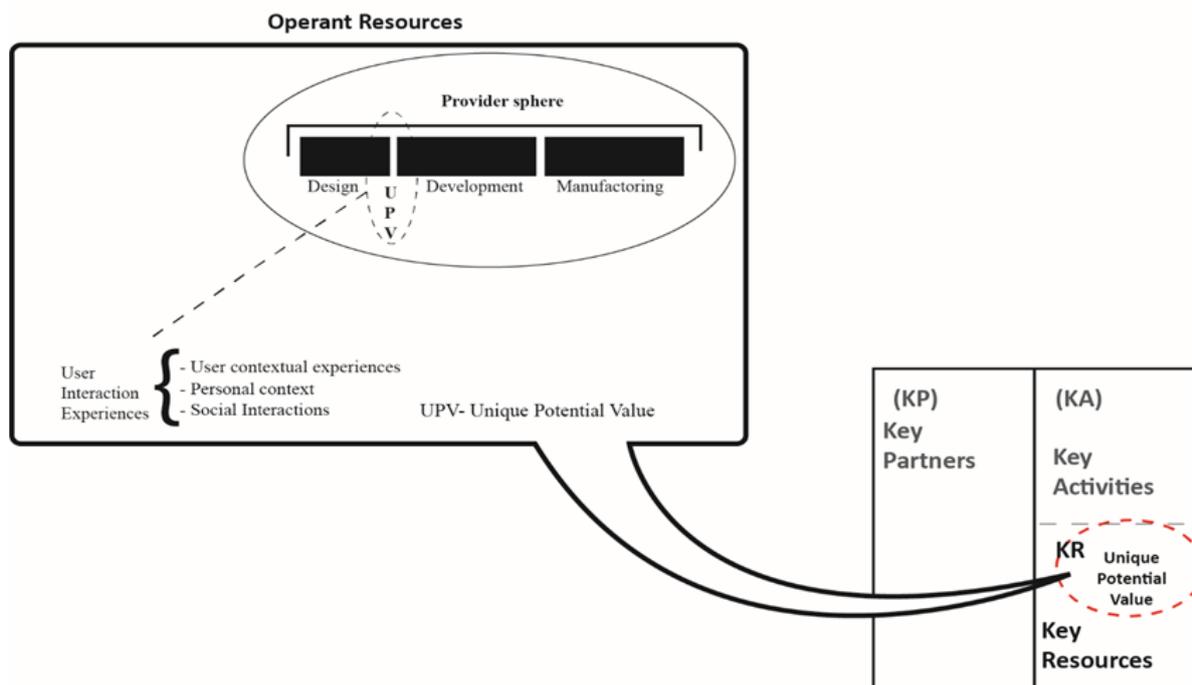
Conclusion

According to Grönroos & Voima (2012), the values that will be created in the provider sphere are categorized as the values in-exchange, where a firm or multimedia company only provides or facilitates users without sharing real experiences on using the actual product. This will occur unless potential values were created under certain circumstances and envisioned during an interaction in the providers sphere, which is also known as the creation of value in-exchange.

In this sense, Grönroos & Voima (2012), suggests that the customer is always a value creator. Any contextual or physical involvement accumulated while users interact with designers in the early creation of interactive multimedia products is considered as a potential value or an envisioned value.

To address these issues, Grönroos & Voima (2012), posited that: "When value is perceived as value-in-use for the customer, the focus is no longer predominantly on a customized bundle of products or services exchanged for a price". This puts the core of co-creations values as a user's experiences and interaction. Therefore, without these two attributes, the core values of co-creation might not exist at all.

REFERENCES

Anaraki, S. S., Amirian, S. M. R., & Zolfagharkhani, M. (2016). Development and Validation of a Self-Efficacy Scale with Writing and Social Factors. Asian Journal of Assessment in Teaching and Learning, 6, 27-40.

Galvagno, M., et al. (2014). "Theory of value co-creation: a systematic literature review." Managing Service Quality: An International Journal 24(6): 643-683.

Grönroos, C. and P. Voima (2012). "Critical service logic: making sense of value creation and co-creation." Journal of the Academy of Marketing Science 41(2): 133-150.

Harozila Ramli, Tajul Shuhaizam,Mohamad Zaihidee Arshad.2019. Symbolism of ; Keleput' Art and Intellectual Value of Penan Heritage Craft in Sarawak. Journal of Advanced Research In Dynamical And Control System (JARDCS). Vol. 11, 05-Special Issue.

Harozila Ramli, Tajul Shuhaizam, Salwa Jamaldin, Mohamad NurHanif Hazman.2019. The Impact of a Learning Module Based On Adobe Photoshop on The Teaching And Learning Of Batik Pattern. International Journal of Innovation, Creativity and Change. Vol.6 Issue 2.

Harozila Ramli, Tajul Shuhaizam, Salwa Jamaldin, Mohamad NurHanif Hazman.2019. TheImpact of a Learning Module Based On Adobe Photoshop on The Teaching And Learning Of Pattern. International Journal of Innovation, Creativity and Change. Vol.6 Issue 2.

Hamid, H. A., & Idris, N. (2014). Assessing Pre-University Students' Visual Reasoning: A Graphical Approach. Asian Journal of Assessment in Teaching and Learning, 4, 1-18.

Rahman, S. K. T. K. J. I. I. S. A. (2016). "Scale development and validation for DART model of value co-creation process on innovation strategy." Business & Industrial Marketing Vol. 31(1): 24-35.

Bharti, K., et al. (2014). "What drives the customer of world's largest market to participate in value co-creation?" Marketing Intelligence & Planning 32(4): 413-435.

et al. (2012). "Characterizing Value as an Experience." Journal of Service Research 15(1): 59-75.