

EXPLORING FACTORS THAT INFLUENCE CUSTOMER ENGAGEMENT IN VALUE CO-CREATION IN HIGHER EDUCATION INSTITUTIONS USING ONLINE PLATFORMS

¹ NABIL HASAN, ² AZIZAH ABDUL RAHMAN

^{1,2} Department of Information System, Faculty of Computing, Universiti Teknologi Malaysia

E-mail: ¹nhs1426@yahoo.com, ²azizahar@utm.my

ABSTRACT

Higher Education Institutions (HEIs) can be described as a container that encompasses strong knowledgeable minds and experienced individuals. It is one of the service sectors comprised of a huge number of individuals who are attached for life with Higher Education Institutions and possess resources of knowledge, experience and competency. These valuable resources are considered to be sources of innovative performance, best service quality and better community transformation. By engaging such brilliant minds in value co-creation, either with internal or external customers of these HEIs, it is believed that this engagement will help HEIs to maintain better service quality, attain reputable positions and contribute to enhance community transformation. However, the task to engage large numbers of HEIs customers in co-creation of value is not easy to be achieved without in-depth exploration of how to accomplish and sustain such engagement. Special effort is taking place to engage the inner and outer HEIs community in value co-creation process through online platforms. Yet, the level of customers engagement still low and poor. The aim of this research is to explore factors that impact HEIs customers to be engaged in any form of value co-creation through the online platforms, and to introduce a holistic value co-creation model that helps universities and other HEIs to engage customers in value co-creation activities through any means of effective online platforms. A qualitative method is adopted by interviewing ten HEIs experts from four reputable Malaysian universities. Data are collected, analyzed and synthesized with support of Nvivo10 software. Value co-creation conceptual model is established and the results reveal that there are several factors that have an impact on customer engagement in the value co-creation in HEIs. According to the nature of value co-creation and the context of this research, factors are summarized into three classifications: organizational factors that represent HEIs provider aspects and these factors are the predominant among other aspects. Then technological factors that represent the online platform characteristics and the personal factors that represent customer aspects.

Keywords: *Value Co-Creation, Higher Education Institutions, Customer Engagement, Online Platforms.*

1. INTRODUCTION

It is the goal of all organizations to fulfill its customer's needs, reduce complaints, to solve problems and to achieve high customer satisfaction. As a consequence these common goals will lead to service quality improvement, reputable organizations, new service development and doors will open for organizations to be in the domain of innovative orientation. One of the existing points of

view propose that customers inside the university should be engaged as active co-producers of the university experience [1]. Higher Education Institutions in general and universities specifically are considered a major and potential component towards sustainable development, in particular through its traditional mission of education, research and public service [2],[3]. Yet, some HEIs have successfully established or used an appropriate online platform like online forums, web applications



to engage their customers in ideation or crowdsourcing as a part of value co-creation process. On the other hand, some HEIs have failed to engage customers' attention, and if they managed to engage some customers in value co-creation once, they failed to sustain customers' engagement in value co-creation using online platforms[4]. Moreover, some research authors have stated that "it is unfortunate that there are insufficient studies on value co-creation and service systems especially in the field of information systems." In addition, there has been less research conducted on service systems especially in HEIs in Malaysia and their role in value co-creation [5]. Therefore there is a need to study the "process of co-creation from a strategic perspective and to evaluate the influence of different variables, including resource development, leadership, learning and the strategic orientations of firms (entrepreneurial, market and technology) on the process of co-creation"[2]. In addition, there is a need for researches on value co-creation engagement in service sectors in general and in HEIs in particular, and how this engagement can be sustained through an effective technology platform is still in the immature stage[3],[6]. While customer participation in the service sector is not essentially new, what is new is an acknowledgment that the HEIs only provide a partial input into the customer's experience [7]. It is therefore necessary to co-opt and empower HEIs customers to take a role in value co-creation in education sector[8]. Co-creation through HEIs should be used as a vital activity to enable sustainable development success and better community transformation, thus driving the HEIs to become a world leader in developing successful international partnership with business and the community [9]. Referring to the nature of co-creation, emphasis should be placed on the "collaborative" work between the two entities, customer as the (individual side) and service provider that represents (organizational side)[10]. In this research context the online platforms that represent the Technological side are considered a third main aspect to facilitate the engagement in value co-creation among HEIs customers. Therefore this research paper aims to explore the influence of different organizational, individual and technological aspects on the customer engagement in value co-creation in HEIs. The flow of this paper starts with introduction section followed by a literature review section that gives a brief definition about co-creation and value and current situation of value co-creation in HEIs using online platform. The methodology section that contains ways of collecting and analyzing data is then presented

followed by research results and synthesized findings to come up with conceptual model. The paper ends with the conclusion that includes study limitations and further recommendations for future study.

2. LITERATURE REVIEW AND THEORETICAL BACKGROUND

2.1 Value Concept

Value is considered to be as cornerstone and one of the most significant aspects for the organization success. It has been pointed to be an essential source of competitive advantage for the organization [11-13]. A research review conducted about conceptualization of perceived value revealed that there are two aspects of "value": uni-dimensional and multidimensional models of value and these two aspects have their roles to play in providing simplified (unidimensional) and complex (multi-dimensional) understandings of the concept[14]. Although there is no common agreement on the definition of value research has indicated that the nature of perceived value is complex and multi-dimensional. On the other hand, one of the outcomes of the abovementioned research review exposed that the concept of perceived value implies an interaction between a customer and a product or service which means that communication moves in a single direction that is close to the concept of Good Dominant Logic (GDL). However in the service dominant logic (SDL) marketing approach a continuous dialogue between the company/service provider and customer seeks to create the service on a joint basis[14],[15]. Such conceptualization of 'value' (as simply a trade-off between benefit and sacrifice) that limits the interaction only between product/service and customer represents a narrow approach to the concept of value co-creation, and the argument here is that 'perceived value' is a multidimensional construct in which a variety of notions such as perceived price, needs, quality, benefits, sacrifice are all embedded[16-18], and the most important interactional dynamic is the relationship between customer and company or service organization.

2.2 What Is Value Co-creation ?

Co-creation stresses the integration of resources of both the company or service provider and the customer. However for the concept of value co-creation to be meaningful and manageable, organizations need to know what are the things they

should manage [19]. Good organization managers are required to learn new techniques to motivate customers to co-create value as well as to find ways to successfully monitor and manage the process of co-creation in their organization [20]. The word co-creation was first used by Kambil et al. to refer to co-creating value between company and their customers in which they propose that co-creation activities give rise to a new dynamic in the relationship between the company and the customer, because customers participate in the production process and the distribution of value [19]. Customers can participate in every stage of the value chain, becoming partial "employees" of the organization [19]. Prahalad & Ramaswamy then adopted the term to refer to those activities in which both the consumer and the company are involved together in the creation of value [21].

2.3 Value Co-creation In (HEIs) Via Online Platform

Literature in Higher Education suggests that students can be viewed as "customers" and university lecturers/administrators can be seen as "service providers" [22]. However, other studies indicate that universities are responding to numerous customers who can be classified into two types: internal customers such "students and employees, both academics and technical" and external customers like "suppliers, financiers (creditors, NGOs and funders), trade unions, parents, quality assurance bodies, trade associations, based on education process [23]. Through HEIs professional bodies and standards associations, many potential customers in addition to having long term relationship with universities, also have an accumulated resources of experience, knowledge and skills. These resources represent a vital component for value to be co-created if it is integrated with the HEIs resources. Therefore customers in HEIs are encouraged to introduce ideas and to participate in generating value. Customers in HEIs should increasingly be motivated to express their engagement in value co-creation for HEIs betterment with their varying skills, experience and competencies [4]. In fact co-creation is based on voluntary participation. Hence, customers will lose their eagerness to contribute if providers do not pay attention to them and they will be demotivated to engage in value co-creation through IT platform channels and their attention to participate may become lower or even vanish [24]. The majority of HEIs in Malaysia have a good infrastructure of internet connectivity. However, while they have special units of web and

information technology and some of these HEIs have an online platform to engage their customers in value co-creation, many of these HEIs are suffering from low level of customer engagement that causes low level of sharing customer's ideas, thoughts and experiences to co-create value. In consequence this might lead to an undesirable level of HEIs customer's loyalty and satisfaction [4]. "Co-creation in HEIs in Malaysia should be one of the most considerable and workable strategies. Here is where the competing relationship among HEIs is most demanded"[25]. Therefore, in this research paper it is needed to identify factors that influence customers in HEIs to be highly engaged in value co-creation using online platforms, taking into consideration all possible influential factors that are related to customer, provider and the online platform. This is because these three elements are the core elements of value to be co-created in this research context.

3. METHODOLOGY

In this research paper, qualitative method has been adopted to explore and investigate the factors that impact customer engagement in value co-creation in Higher Education Institutions (HEIs) using an online platform. By interviewing 10 academic experts from four different reputable public universities in Malaysia, open end structured interview questions have been designed. Face to face interview method has been selected because of its several strengths such as the fact "that it permits the respondent to move back and forth in time". Moreover, the flexibility of the technique allows the investigator to probe, to clarify, and to create new questions based on what has already been heard [26]. This "flexibly structured" interview style allows the researcher to "recognize statements which suggest new questions or even new lines of investigation" [27]. With aid of Nvivo 10 software all the data that have been collected are organized, stored accordingly and analyzed.

3.1 Data Collection And Analysis

In addition to the interview method as the main research instrument, triangulation of data collection has been applied to increase credibility of scientific knowledge by improving both internal consistency and generalizability through combining both primary and secondary data in the same study context. In other words this research paper not only relies on the interview of 10 experts to reach the findings. However, several source of primary data

have been collected before as shown in Figure-1. For instance an “idea bank” case study conducted in 2014 based on one of the top HEIs in Malaysia indicated that there are many unexpressed factors that need to be explored further to justify the reasons behind customer’s low level of engagement in value co-creation in HEIs [4].

process for the interview. Qualitative analysis process is adopted from Gibbs, G. R., *coding, Alan Bryan’s stages of qualitative analysis* [32], as shown in Figure-1. Themes have been derived from transcripts with help of Nvivo 10 and verified by literature as some examples of these themes are presented in Table 1.

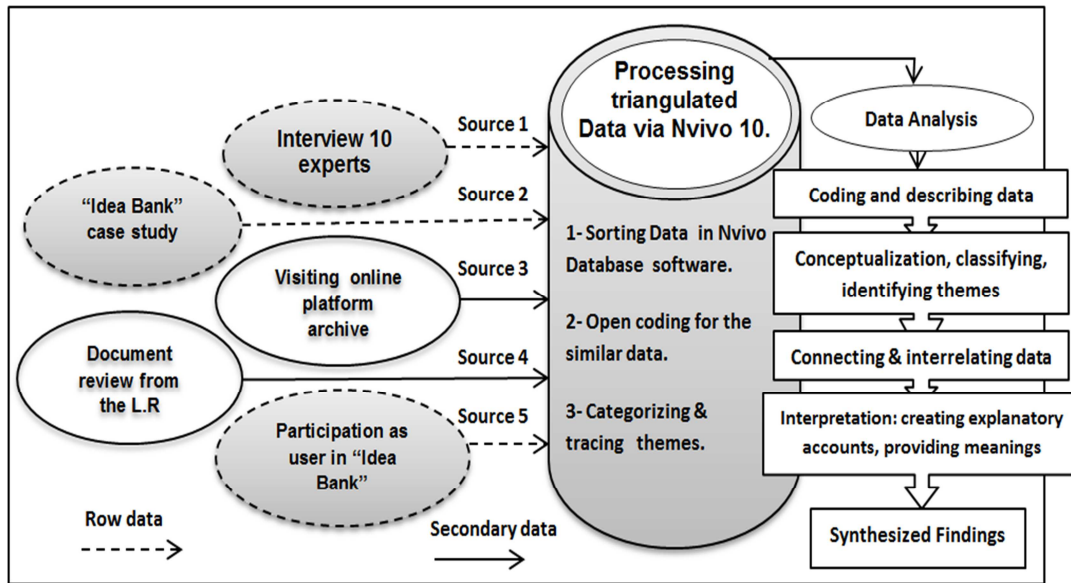


Figure 1: Data collection and analysis.

Moreover, various secondary data have been collected from theories and previous literature reviews to verify co-creation phenomena in HEIs context in relation to what have been initially explored. The main reasons for using data triangulation are: first, to increase this researcher in-depth understanding of the phenomenon under investigation by combining multiple methods, theories and data recourse [28],[29],[30],[31]. Second, triangulation here is used for completeness purposes to further recognize the less explored research problems [31]. Doing so will generate a rich amount of data that can be of further help in developing hypotheses for future quantitative investigations. In addition, triangulation for completeness purposes in order to learn more about the complex research phenomenon is important. Therefore, it is encouraged to start by employing the methods in the qualitative paradigm to produce more rich data and to gain a wider understanding of the phenomenon. After collecting data from interview and literature review. An initial and open coding is adopted according to qualitative analysis

Table 1: Sample of data coding, analysis & deriving themes

Code	Interviewee’s “Transcript”	Extracted Themes	Construct in the literature
TF	<i>“The online platform” should be easy to be used and friendly and also should be interactive”</i>	Online platform simplicity	[34],[35]
OF	<i>“how you can translate the ideas into the service , if you are too slow, you don’t have a good management strategy “</i>	Having a good management	[50]
PF	<i>“my feeling of responsibility toward my community, love that I should have to show my loyalty and commitments that show that I want to contribute”</i>	Customer Loyalty & attachment	[40],[41],[42],[60],[61]

TF: Technological factor, OF: Organizational Factor, PF : Personal Factor



3.2 Purposive Interview Sampling

Ten academic experts from four reputable public universities in Malaysia have been interviewed. The selection of interviewees is arranged through purposive sampling, which is a nonprobability form of sampling, meaning that the goal of the purposive sampling is to sample interviewees in a planned way, so that the sample are relevant to the research questions. In order to select interviewees, snowball sampling technique is adopted. “Snowball sampling is a sampling technique in which the researcher initially samples a small group of people relevant to the research questions, and these sampled participants propose other participants who have had the experience or characteristics relevant to the research. These participants will then suggest others and so on” [31]. Those selected experts and chosen universities are holding specific criteria that should serve the purpose of this study and research questions. The criteria are as follows: **1-** expert must work in the field of HEIs and have working experience not less than 10 years. **2-** expert should have prior knowledge about value co-creation or any form of value co-creation through online platforms or s/he has participated in any form of value co-creation or ideation through any means of co-creation engagement platforms. **3-** selected

4. RESULTS AND DISCUSSION

The results generated from this study have revealed many interested findings which would otherwise be very difficult to identify and produce a clear and holistic picture. The outcomes have been broadly classified into three main thematic categorization as shown in Table-3 below. In this section main themes and sub-themes are defined explained according to the experts point of view. The reason for introducing these specific three themes in this study is referring to the nature of co-creation that emphasizes the “cooperative” work between the customer as the (personal aspect) and service provider that represents the (organizational aspect) [10]. In this research context the online platforms that represents the (Technological aspect) are considered as a third main part that facilitates the engagement in value co-creation between customer and provider. After following the process of data transcription, coding and analysis as explained in section 3.1, themes and subthemes have been summarized in Table-3. These themes are introduced and defined according to the interviewee expression as follow:

4.1 Themes That Are Related To Technological Aspects

Table 2: Interview Sampling

	Interviewee	Gender	Age Years	Years of experience	University	Designation	Area of work (profession)
1	Interviewee A	Male	52	27	UTM-KL	Professor/Lecturer	Creativity thinking and innovation
2	Interviewee B	Male	59	36	UTM-KL	Professor/Lecturer	Computer integrated Manufacturing
3	Interviewee C	Male	46	23	IIUA- KL	Assoc.Professor Senior lecturer and researcher	Information systems development and knowledge management
4	Interviewee D	Female	55	25	UKM	Assoc.Professor Senior lecturer and researcher	Service Science, E-Supply Chains Simulation and Modeling
5	Interviewee E	Male	41	15	UTM-JB	Doctor Senior lecturer and researcher	Information systems, web development and knowledge management
6	Interviewee F	Male	60	34	UTM-JB	Assoc.Professor, Administrative Post – Research fellow	Computer network performance and security
7	Interviewee G	Female	56	25	UTM –KL	Assoc.Professor Senior lecturer and researcher	Policy Management in ICT Governance, Information Systems Education,
8	Interviewee H	Female	42	14	UPM	Senior lecturer and researcher	Information communication Technology in Education
9	Interviewee I	Male	34	10	UTM-JB	lecturer and researcher	Computer science
10	Interviewee J	Female	58	35	UTM-JB	Deputy registrar	Administration and communication

university should have an online platform that engages its customer and facilitates generating ideas, feedback and suggestions that serve the purpose of improving service quality or developing new service or product. Summary of interviewees is listed in Table 2.

Themes and aspects in this part are referring to the factors were mentioned by the experts. These factors are concern about HEIs online platforms that should be considered as a vital tool to facilitate customer engagement in value co-creation.



4.1.1 Platform well design

The online platform must be designed in a manner that reduces the co-creator’s aggravation, cost and waste of time via providing the right set of features and functions concerned with the customer’s personal interests, entertainment, enhancement of self-image, sense of comfort and ease, building new contacts/ maintaining existing contacts, social recognition, creativity, information / knowledge, and lastly, smoothing any co-creation activities.

4.1.1.1 Educative and informative

Platform itself should be designed in a way to be visible and informative. Expert “B” said: *“It should have some element of education to educate people, and to enable new ideas and knowledge to be shared and learned among participants”*.

a very responsive way. *“For whatever ideas that come from participants, they should receive continuous or automotive feedback in a mutual manner.”* Expert “G” said.

4.1.1.3 Online platform simplicity

Platform shouldn’t be designed in a complicated format, or have a complex functions. If effortless, participants can post their prompted and generated ideas quickly and easily. Online platform must be free of constraint so ideas can be captured immediately.

4.2 Themes That Are Connected To Customer As Personal Aspects

Themes and aspects in this part are referring to the factors were mentioned by the experts. These factors are linked to the customer perspectives in HEIs that cause great level of engagement in value co-creation.

Table 3: Factors that impact online engagement in value co-creation in HEIs

Factors that impact customer engagement in value co-creation in HEIs												
	Theme Extracted from the interview transcript with aid of Nvivo program	Interviewee										Reference for the constructs found in the literature review
		A	B	C	D	E	F	G	H	I	J	
Technological	Online platform simplicity		x	x		x	x	x		x		[34],[35]
	Educative & informative platform		x		x					x		[36]
	Responsiveness & interactivity platform		x	x		x		x				[35],[37- 39]
	Reliability & easy access platform					x	x	x		x		[37],[40]
	embedding Social media in the platforms		x		x	x		x		x	x	[41],[42],[44]
Organizational	Organization open innovation culture		x	x	x	x			x			[43],[45- 48]
	Leadership style		x	x			x					[49]
	Promotion and awareness programs		x	x		x	x	x			x	
	Having a Multichannel platforms		x	x	x		x	x				
	Having a good management		x	x	x		x					[50]
	Participation clear policy		x	x						x		
	Rewards and remuneration		x	x		x	x	x	x	x	x	[41],[51-56]
	Implementation of good ideas		x	x			x			x		
	Providing courses & training		x	x	x		x			x	x	
	Information access transparency		x	x			x			x		[44],[54],[56]
Personal	Gaining benefits		x	x	x	x				x		[24],[46],[57],[58]
	Learning benefits		x		x							[24],[40],[54],[56],[59]
	Social benefits		x	x								[21],[51],[54],[55],[56],[60]
	Need fulfillment		x	x		x						[21],[35],[38],[40],[56],[59],[60]
	Hedonic & self-satisfaction							x		x		[35],[42],[46],[51],[54],[59] [60]
	Perceived empowerment						x			x		[35],[41],[56],[58]
	Skills and competency				x			x				[39],[48],[61]
	Customer Loyalty & attachment							x	x	x		[21],[40],[41],[42],[60]
	Intrinsic motivation		x				x				x	[41],[40],[51],[60]
	Sharing experience							x		x		[42],[62]

4.1.1.2 Responsiveness & interactivity

Co-creation platform should be dynamic in nature and must regularly attempt to engage customers in

4.2.1 Gaining benefits

The greater the benefits perceived by customers in these co-creation platforms, the greater their actual

participation in such mediums. Co-creation platform should be beneficial for participants in terms of what they can get and what the value is in return.

4.2.1.1 Learning benefits

The level of the customers engagement in co-creation using an online platform will be greater if they feel that they can gain certain “learning benefits” in return for such knowledge or experience that comes out of their participation. Thus co-creation platform must be informative enough to educate people so that whoever uses that platform can realize certain things that generate value to them such as enhancing participant’s knowledge, and finding opportunities to develop their skills.

4.2.1.2 Social benefits

It refers to the participants in co-creation activities who they are motivated by securing a good title in their HEIs community or by increasing status, social esteem, such good reputation or other forms of recognition that a HEIs provider might grant to particularly valuable contributors.

4.2.1.3 Need fulfillment

participation in a co-creation via online platform should allow customers to address the need-based incentives drive innovative activity and facilitate the way for problem solving. In other word organization must provide customers with a platform that can solve certain problem issue through addressing needs, that is concern to them.

4.2.1.4 Hedonism & self-satisfaction

This is when the customer’s participation in co-creation activities through an online platform is motivated by feeling the enjoyment of psychic involvement that came as a result of helping others by offering solutions or problem solving. A strong feeling of achievement generates a sense of creating something or contributing to something important for peers or community.

4.2.2 Perceived empowerment

Participants in co-creation activities through an online platform should be given the right to access some information regarding the organizations’ services or products and be shown how to get this access in addition to giving them the right to see other people’s ideas, and who agrees or disagrees with these given ideas. In other words, customers will be more motivated if the provider can involve them in the process of making decisions and by giving them an opportunity not only to give ideas,

but also to participate in some implementation stages.

4.2.3 Skills and competency

Participation in co-creation activities through an online platform will be more powerful and beneficial if the targeted participants have self-perceived potential of skills, experience and relevant knowledge. In other words, the greater experience and abilities customers have, the more willing they are to contribute new ideas or creative thoughts, while low ability customers will be less likely to post useful ideas.

4.2.4 Customer Loyalty & attachment

This is when the customer’s participation in co-creation activities through an online platform is motivated by the feeling of responsibility toward the organization or community. Being part of HEIs, showing sort of loyalty and commitments that has an indication of belonging, for strong feeling of contribution.

4.2.5 Intrinsic motivation

It refers to self-motivation of a person who has strong initiative of inner believes supported by self-commitment and determination. In other word this type of motivation arises from a drive of its own, inspired from inside an individual, for a state of inherent fulfillment, and is therefore not focused on the outcome rather than focusing on the contribution and sometimes even without an interaction with a provider.

4.2.6 Sharing experience

This is when participants in co-creation activities through an online platform are motivated by the sense of sharing their own experience as a sort of community care and to contribute their relevant resource as a result that they feel from the field they worked that their shared experience could solve problem or improve service.

4.3 Themes That Are Linked To Provider As Organizational Aspect

Themes and aspects in this part are referring to the factors were stated by the experts. These factors are related to the culture of HEIs, and the decision and policy makers as they act as provider in HEIs whom their decision and attitudes towards customers or value co-creation cause great or less level of engagement in value co-creation.

4.3.1 Open innovation culture

To engage customers in value co-creation, HEI



organizations must adopt the culture of open innovation. HEIs should open their platform for sharing more information that allow, motivate and engage more internal and external customers by permitting more inflow of suggestions and ideas which can lead to competitive and innovative solutions. One way is to open up its organization's boundaries to allow valuable ideas and suggestions flow in from the outside in order to create chances for co-operative innovation processes with wide range of participants.

4.3.2 Leadership style

To insure successful implementation of co-creation activates, especially in well-known organizations such HEIs that requires organization's leaders to adopt an incentive mindset. In other words decision-making leaders must play a critical role in the initiation and the development of a co-creative organization. HEIs leaders and top managers should take part in the transformation towards a co-creation paradigm by moving towards experience-based understanding and by engaging relevant experienced individuals in value co-creation activities.

4.3.3 Promotion and awareness programs

To insure successful customer engagement in value co-creation through organization platforms, promotion programs and awareness activities must be frequently performed. Moreover, online and offline publicity that generate customer's full awareness about such platforms should be established to facilitate and spread the concept of sharing ideas and to inform those unaware individuals about the availability of such co-creation platforms.

4.3.4 Having multichannel platforms

HEIs and service organizations must have multichannel platforms to engage customers in value co-creation. HEIs shouldn't use only one channel of engagement because a particular channel might be suitable only for particular users. For instance, providing electronic web platform, social network, idea competitions, workshops and other traditional platforms like manual survey or communities for social service development. That means if HEIs want to participate holistically in co-creation of value they must have various channels of engagement, not only one. This is because of the fact that they deal with people who have different natures.

4.3.5 Having a good management

To insure fruitful customer engagement in value co-creation through HEIs platforms, HEI organizations must have good managers who can apply good management strategy. HEIs should have managers who are concerned with online platform monitoring and moderations, can translate ideas into new service fields or new products in a stable process by motivating internal collaboration, and supporting and cultivating co-creation initiatives inside the organization. Thus, it is difficult to consider an organization as co-creative without the active involvement of managers at all levels.

4.3.6 Participation in clear and fair policy

In order to guarantee an effective customer engagement in value co-creation through an organization's online platforms, providers should introduce clear policies that concern the processes going behind the system or online platform such as how ideas and feedback will be treated and taken up during and after submission. Thus, contributors' should be informed from the beginning as to what happens to the shared ideas by way of customer feedback. Consequently customers will know their rights and if their ideas are accepted and will be informed if their ideas are valuable or not and if they should be implemented or not. Customers can also be advised if their idea could generate commercial benefits.

4.3.7 Rewards and remuneration

It refers to the tangible and intangible incentives to be given to customers in appreciation of their contribution and to further engage them in value co-creation activities. To get ideas or to co-create value from customers, organizations' must make sure that the system or platform is beneficial for the customers in terms of what they will receive, what is the value in return and what are the rewards for their participation.

4.3.8 Organization support and recognition

To maintain customer engagement in value co-creation through HEIs platforms, HE organizations must provide whatever means and tools to support, facilitate and encourage customers to be active co-creators of value. Such organizational support should be technical, emotional and even financial. Moreover, many different methods of acknowledgment and recognition of customer contributed values will definitely sustain a strong connection between customer and organization.



4.3.8.1 Implementation of good ideas

One important element to encourage customers to participate more in value co-creation through an online platform and to sustain their engagement is to visibly appreciate their contributed ideas by implementing them. Idea implementation will preserve continuous engagement and motivate more participation in value co-creation. The wisdom behind implementing customers' visible ideas is the feeling of optimum satisfaction, achievement and empowerment that are generated on the customer's side.

4.3.8.2 Providing courses & training

To engage customers in value co-creation, HEI organizations should be more concerned with promoting universities to conduct classes and provide syllabus and workshops to train and encourage students and staff to be more participative in the co-creation process. This will increase the level of realization among the targeted customers to behave as co-creator of value.

4.3.8.3 Information access transparency

Providing customers with the right of some information access transparency will support an increase trust and smooth fruitful communication between organization and customers and will facilitate disclosing most relevant ideas that could be benefited in certain field.

5. SYNTHESIS OF THE FINDINGS A CONCEPTUAL MODEL

Based on the findings that have been explored above from in-depth interview and generated from multiple sources of data that was collected, a conceptual model is presented in Figure2. In this section influential key elements that impact customer engagement in value co-creation in HEIs through an online platform are identified. The findings are being synthesized into a holistic, interrelated concepts of co-creation influential aspects that impact customer online engagement from the academic point of view as follows:

5.1 Organizational Aspects (Provider)

For the provider in any service sector to successfully engage customer in value co-creation process, some essential aspects must be taken into account. Ramaswamy broadly stated that managers need to change their mindset and approach in order to Achieve co-

creation of value by changing their business strategies in light of the paradigm shift and be aware of how sources of competitive advantage are achieved [50]. Organizations must facilitate the process of engagement in co-creation by adapting open innovation culture, having a clear and fair policy for participation in the co-creation, adopting and implementing good ideas, and by rewarding and recognizing customers as a co-creator. Moreover, fruitful engagement can be enhanced further by having an exemplary leadership style which encourages the orientation of innovative organizations. HEIs should provide its customers with multi-channel platforms to engage them in value co-creation that should be leveraged through the HEIs network and provide all the means to support customer engagement such as a training, promotion, awareness programs, competitions and transparency of information sharing.

Although, the number of explored factors in organizational aspect almost the same with the number of factors in the personal aspects as illustrated in Table- 3. But, it is observed that the frequency of agreement on the organizational factors among the experts' opinions are the most dominant. In contrast, the value co-creation literature review in production sector indicated that personal and individual factors (customers side) are the predominant factors and have more impact on customer involvement in value co-creation.

5.2 Technological Aspects (Online Platforms)

Managing the process of engaging customers in value co-creation, especially in HEIs requires the handling of a large number of relevant participants whose resources are visible. Co-creation online platforms in HEIs should have the ability to administer the stream of inflow / out flow of data, communication and interactions that need to be treated in a responsive manner through a reliable channel. However managing and handling such co-creation engagement processes would not be easy without using the capabilities of well-designed service systems and platforms. With utilization of internet connectivity, HEIs should operate platforms that are easy to access, highly attractive, informative and reliably interactive to maintain an effective customer relationship and

establish a climate of knowledge and experience sharing. Furthermore, co-creation platforms will be more appealing if they are visualized, and able to utilize the benefits of embedding social media applications. This is because of the reality that some individuals like to visually express their creativity and ideas instead of only using words or text. Social media offers real time high interactivity that fits some of the new generation of customers. In fact some elements in the organizational aspects are strongly connected to some other technological aspects not only because of the level of relevancy, but due to the dynamic nature of value to be co-created between the two entities, customers and provider. For instance, an obvious linkage can be observed between the organizational aspect of adapting open innovation culture and having a multichannel of co-creation platform that must have relation with the technological aspect of having the features of simplicity, reliability and easy access to allow inflow and out flow of shared information from inside or outside the organization.

the customer's personal, psychology and competency perspectives that have an impact on the level of online engagement in value co-creation. Some authors emphasize the great impact of monetary or materialistic reward systems as influential aspects to engage customers in value co-creations [33]. On the other hand some other scholars address other specific influential aspects of obtaining benefits that generate various utilitarian, hedonic, or relational outcomes [24]. However these mentioned influential aspects might be more suitable for co-production and co-designing of product rather than value co-creation in the service sector. Some of the abovementioned influential aspects in this section are still workable to a certain extent to motivate customers in HEIs to be engaged in the process of value co-creation. Nevertheless there are other customer related influential aspects that have greater impact to

engage customers in co-creation of value, such as having a sense of empowerment when customers participate in value co-creation, level of customer loyalty, belonging and attachment to the organization, having the sense of sharing knowledge and experiences. There are connections

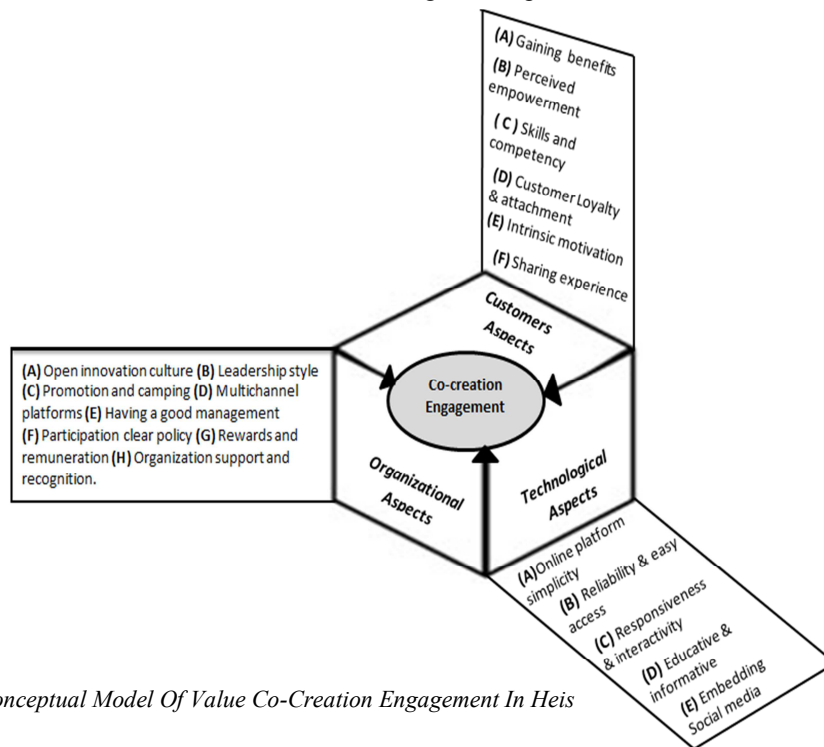


Figure 2: Conceptual Model Of Value Co-Creation Engagement In Heis

5.3 Customer Aspects (personal)

Customer is the source and focal element for value to be co-created in HEIs, taking into consideration

between some customer's influential aspects and some other technological aspects can be observed and recorded, for instance gaining benefits like



learning and social benefits in relation to a well-designed, educational, normative platform.

6. CONCLUSION

Value co-creation is a dynamic phenomenon concerned with the mutual collaboration between customer and provider to generate mutual value, maintain sustainable development and better community transformation. The dynamic nature of value to be co-created needs to be understood comprehensively and explored holistically. For a good understanding of this dynamic phenomenon, a number of influential aspects that impact customers' engagement in value co-creation in the context of HEIs have been explored by conducting in-depth interview with ten academic experts from four different reputable public universities in Malaysia and supported by other multiple source of data from literature review and previous studies. To bridge and rectify the gaps that deter customers in HEIs to be consistently engaged in value co-creation activities, three different perspectives that influence customers to be engaged in value co-creation thorough the platforms of these institutions are identified. These perspectives are: first, organizational influential aspects that must be adopted by provider to successfully engage customer in value co-creation process. Second is customer influential aspects that should be available for the customer to be considered as value co-creator. Third is the technological aspects that concern online platform characteristics that facilitate co-creation of value to occur between customers and provider in HEIs. In addition, an initial a conceptual model has been established as a basis for the future empirical investigation. A good understanding of these influential aspects for value co-creation in HEIs using online platforms will help higher education institutions and other service sectors to achieve better global market positioning and will help to differentiate themselves among other competitors. Moreover, it will help customers maintain a good level of satisfaction, loyalty and relationship with HEIs. It will enhance customer's level of experience and competencies. However, involving knowledgeable HEIs' customers in value co-creation through technology platforms requires a comprehensive understanding of these aspects that guarantee such fruitful involvement to occur and how such customer engagement can be maintained. This study in the current stage attempts to generally and qualitatively explore the influential constructs that will draw guidelines for HEIs, to introduce a future holistic model to be utilized and

implemented in the context of value co-creation in higher education institutions. One of the limitations of this study in the current stage reveals that the findings of this research need to be examined and tested in several HEIs to be generalized. Therefore the research model in this study is aimed to be quantitatively tested in other several higher education institutions in Malaysia. For further future study, the model in this research can be examined in any other service sector context to investigate the phenomena of customer engagement in value co-creation through the use of online platforms.

ACKNOWLEDGMENT

Special thanks go to Professor Songib, Professor Awaluddin, Associate. Professor Abdulrahman Ahlan, Associate. Professor. Muriati, Dr. Abdulrahman, Associate. Professo Suliman, Associate. Professor wardah, Dr.Habibah, Dr.Faisal, Dr .Azimah. for their cooperation and important material contribution.

REFERENCES

- [1] Bowden J. L. H. and D'Alessandro S. Co-creating value in higher education: The role of interactive classroom response technologies. 2011.
- [2] Barth M., Michelsen, G. and Sanusi, Z. A. A review on higher education for sustainable development-looking back and moving forward. *Journal of social sciences*, 7(1), 100-103. 2011.
- [3] Fadeeva Z. and Mochizuki Y. Higher education for today and tomorrow: university appraisal for diversity, innovation and change towards sustainable development. *Sustainability Science*, 5(2), 249-256. 2010.
- [4] Hasan N. Rahman, A. A. and Saeed, F. Motivations for Value Co-creation in Higher Education Institutions Using Online Platforms: Case of Idea Bank. *Jurnal Teknologi*, 73(2). 2015.
- [5] Golooba M. and Ahlan A. R. Service Value Co-creation in Research & Innovation Practices in Higher Education Institutions in Malaysia. *Procedia Technology*, 11, 342-347. 2013.
- [6] Waas T. Verbruggen A. and Wright, T. 2010. University research for sustainable development: definition and characteristics explored. *Journal of cleaner production*, 18(7), 629-636. 2013.



- [7] McColl-Kennedy J. R., Vargo S. L. Dagger, T. and Sweeney, J. C. Customers as resource integrators: Styles of customer co-creation. In Naples Forum on Services, 2009. (Vol. 24, pp. 857-875).
- [8] Vargo S. L. and Lusch R. F. Evolving to a new dominant logic for marketing. *Journal of marketing*, 68(1), 1-17. 2004.
- [9] Laine K. van der Sijde, P. Lähdeniemi, M. and Tarkkanen, J. Higher education institutions and innovation in the knowledge society. Helsinki: Oy Nord Print Ab. 2008.
- [10] Piller F. T. Ihl, C. and Vossen, A. A typology of customer co-creation in the innovation process. Available at SSRN 1732127.
- [11] Mizik N. and Jacobson R. 2003. Trading off between value creation and value appropriation: The financial implications of shifts in strategic emphasis. *Journal of Marketing*, 67(1), 63-76. 2010.
- [12] Spiteri J. M., and Dion P. A. Customer value, overall satisfaction, end-user loyalty, and market performance in detail intensive industries. *Industrial Marketing Management*, 33(8), 675-687. 2004.
- [13] Woodruff R. B. 1997. Customer value: The next source of competitive.
- [14] Sánchez-Fernández R. and Iniesta-Bonillo, M. Á. The concept of perceived value: a systematic review of the research. *Marketing theory*, 7(4), 427-451. 2007.
- [15] Payne A. Storbacka, K. and Frow, P. Managing the co-creation of value. *Journal of the Academy of Marketing Science*, 2008. vol. 36, pp 83–96.
- [16] Babin, B. J., Darden, W. R. and Griffin, M. Work and/or fun: measuring hedonic and utilitarian shopping value. *Journal of consumer research*, 644-656. 1994.
- [17] Holbrook M. B. The nature of customer value: an axiology of services in the consumption experience. *Service quality: New directions in theory and practice*, 21, 21-71. 1994.
- [18] Holbrook M. B. Introduction to consumer value. *Consumer value: A framework for analysis and research*, 1-28. 1999.
- [19] Kambil A. Friesen, G. B. and Sundaram, A. Co-creation: A new source of value. *Outlook Magazine*, 3(2), 23-29. 1999.
- [20] Damkuvienė M. Tijunaitienė R. Petukienė E. and Bersenaite J. 2012. Customer Perceived Co creation Value: Synthesis of the Extant Literature. *Socialiniai Tyrimai*, 2012(4)
- [21] Haro M. A. G. RUIZ M. P. M. and CAÑAS R. M. The Effects of the Value Co-Creation Process on the Consumer and the Company. *Expert Journal of Marketing*, 2(2), 68-81. 2014.
- [22] Redding P. The evolving interpretations of customers in higher education: Empowering the elusive. *International Journal of Consumer Studies*, 29(5), 409-417. 2005.
- [23] Pereira M. A. C. and Da Silva, M. T. A key question for higher education: Who are the customers. In *Proceedings of the 31st Annual Conference of the Production and Operations*, 2003. (pp. 1-16).
- [24] Nambisan, S. and Baron, R. A. Virtual customer environments: testing a model of voluntary participation in value co-creation activities. *Journal of product innovation management*, 26(4), 388-406. 2009.
- [25] Dato' Seri Mohamed Khaled, minister of higher education Malaysia, asean plus three forum on quality assurance in higher education. Wednesday 10th October, , the Sunway Putra hotel, kuala lumpur. 2012.
- [26] Glaser B. G. and Strauss, A. L. The discovery of grounded theory: Strategies for qualitative research. Transaction Publishers. 2009.
- [27] Whyte W. F. On making the most of participant observation. *The American Sociologist*, 56-66. 1979.
- [28] Shih F. J. Triangulation in nursing research: issues of conceptual clarity and purpose. *Journal of advanced nursing*, 28(3), 631-641. 1998.
- [29] Fielding N. G., and Fielding, J. L. Linking data: the articulation of qualitative and quantitative methods in social research. Beverly Hills (CA): Sage, 41-53. 1986.
- [30] Hussein A. The use of triangulation in social sciences research: Can qualitative and quantitative methods be combined. *Journal of Comparative Social Work*, 1(8), 1-12. 2009.
- [31] Bryman A. *Social research methods*. Oxford university press. 2012.
- [32] Gibbs G. R. *Coding Part 1: Alan Bryman's 4 Stages of qualitative analysis*. [Web Video]. Retrieved from http://www.youtube.com/watch?v=7X7VuQxPfpk&feature=list_other&playnext=1&list=SP14E49EDF20613008. 2010.



- [33] Füller J. Refining virtual co-creation from a consumer perspective. *California management review*, (52), 98-122. 2010.
- [34] Hribernik, K., Ghrairi, Z., Hans, C., and Thoben, K. D. Co-creating the Internet of Things—First experiences in the participatory design of Intelligent Products with Arduino. In *Concurrent Enterprising (ICE)*, 2011 17th International Conference on (pp. 1-9). IEEE.
- [35] Krishna A., Lazarus D., and Dhaka, S. Co-Creation Channel: A Concept for Paradigm Shift in Value Creation. *Journal of Management*, 1(1), 14-21. 2013.
- [36] Pongsakornrungsilp S. and Schroeder J. E. Understanding value co-creation in a co-consuming brand community. *Marketing Theory*, 11(3), 303-324. 2011.
- [37] Hienert C., Keinz, P. and Lettl, C. Exploring the nature and implementation process of user-centric business models. *Long Range Planning*, 44(5), 344-374. 2011.
- [38] Orcik, A, Stojanova, T, and Freund R. Co-Creation: Examples and Lessons Learned from South-East Europe. In *Proceedings of International Conference for Entrepreneurship, Innovation and Regional Development ICEIRD 2013* (pp. 36-44).
- [39] Kohlera T, Teigland R, and Giovacchinib, E. 2011. Enabling co-creation of e-services through virtual worlds. In *ENTER 2011 Conference*.
- [40] Janzik L, and Raasch C. Online Communities in Mature Markets: Why Join, Why Innovate, Why Share?. *International Journal of Innovation Management*, 15(04), 797-836. 2011.
- [41] Piller F. T., Vossen, A, and Ihl, C. From social media to social product development: the impact of social media on co-creation of innovation. *Die Unternehmung*, 65(1). 2012.
- [42] Kandampully J., Zhang, T., and Bilgihan, A. . Customer loyalty: a review and future directions with a special focus on the hospitality industry. *International Journal of Contemporary Hospitality Management*, 27(3), 379-414. 2015
- [43] Piller F. T., Ihl, C., and Vossen, A. A typology of customer co-creation in the innovation process. Available at SSRN 1732127. 2010.
- [44] Schiavone F., Metallo, C., and Agrifoglio, R. Extending the DART model for social media. *International Journal of Technology Management*, 66(4), 271-287. 2014.
- [45] Moscovici S. Social influence and conformity. In: Lindzey G and Aronson E (eds) *The Handbook of Social Psychology*. New York: Random House, 1985. pp.347–412.
- [46] Bauer R. M. & Gegenhuber T. *Crowdsourcing: Global Search and the Twisted Roles of Consumers and Producers*. 2015.
- [47] O’hern, M., and Rindfleisch, A. Customer co-creation. *Review of marketing research*, 84-116. 2010 .
- [48] Westergren, U. H. Opening up innovation: the impact of contextual factors on the co-creation of IT-enabled value adding services within the manufacturing industry. *Information Systems and e-Business Management*, 9(2), 223-245. 2011.
- [49] Chathoth, P., Altinay, L., Harrington, R. J., Okumus, F., and Chan, E. S. Co-production versus co-creation: A process based continuum in the hotel service context. *International Journal of Hospitality Management*, 32, 11-20. 2013.
- [50] Ramaswamy, V., & Ozcan, K. Strategy and co-creation thinking. *Strategy & Leadership*, 41(6), 5-10. (2013).
- [51] San Cornelio, G., and Cruz, E. G. Co-creation and Participation as a Means of Innovation in New Media: An Analysis of Creativity in the Photographic Field. *International Journal of Communication*, 8, 20. 2014.
- [52] Sawhney, M., Verona, G., and Prandelli, E. Collaborating to create: The Internet as a platform for customer engagement in product innovation. *Journal of interactive marketing*, 19(4), 4-17. 2005.
- [53] Ståhlbröst, A., and Bergvall-Kåreborn, B. Exploring users motivation in innovation communities. *International Journal of Entrepreneurship and Innovation Management*, 14(4), 298-314. 2011.
- [54] Janzik, L., and Herstatt, C. Innovation communities: Motivation and incentives for community members to contribute. In *Management of Innovation and Technology*,. ICMIT. 2008. 4th IEEE International Conference on (pp. 350-355). IEEE.
- [55] Fuller, J. Why consumers engage in virtual new product developments initiated by producers. *Advances in Consumer research*, 33, 639. 2006.



- [56] Hoyer, W. D., Chandy, R., Dorotic, M., Krafft, M., and Singh, S. S. Consumer cocreation in new product development. *Journal of Service Research*, 13(3), 283-296. 2010.
- [57] Franke, N., Von Hippel, E., and Schreier, M. Finding Commercially Attractive User Innovations: A Test of Lead-User Theory*. *Journal of product innovation management*, 23(4), 301-315. 2006.
- [58] Ind, N., & Coates, N. The meanings of co-creation. *European Business Review*, 25(1), 86-95. 2013.
- [59] Shah, S. K. Motivation, governance, and the viability of hybrid forms in open source software development. *Management Science*, 52(7), 1000-1014. 2006.
- [60] Fuller, J. Refining virtual co-creation from a consumer perspective. *California management review*, (52), 98-122. 2010.
- [61] Huang, Y., Singh, P., and Srinivasan, K. Crowdsourcing “Blockbuster” ideas: A dynamic structural model of ideation. 2011.
- [62] Ramaswamy, V. Leading the transformation to co-creation of value. *Strategy & Leadership*, 2009. 37(2), 32-p37.