

Value co-creation attributes which influence on e-services: The case of UTM Institutional Repository

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Abstract—Co-creation model is a method of market strategy or business strategy which focuses on the production and progressive realization. This model looks at market or business as a forum for active customers as they must be value in use customers and firm in order to incorporate, repair and fixed up resources of each other and also capabilities to create value through new forms of interaction, service and learning mechanisms. It varies from the traditional active firm - impressionable consumer market construct of the past. Now a days in businesses, services available via the internet, this called e-services which the quality of them is critical issue in this technological decades. Assessing e-services is an important issue in order to gain success for long term which one way is assessing e-services based on their attributes from value co-creation perspective. The aim of this study is to find value co-creation attributes that influence on UTM Institutional Repository (UTM IR). DART model was used to assess the value co-creation. Interview method applied to collect data from the main stakeholders. In conclusion considering the features of value co-creation and using its concepts in e-services has the potential to find its attributes in order to evaluate UTM IR.

Keywords—Value co-creation, e-services quality, e-services, attributes, Institutional Repository

I. INTRODUCTION

Co-creation of value is a value creation by both customer and provider which used in marketing, as without any focuses and attentions to the customer perceptions marketing will be failed in a short period of time. Also e-services are an electronic way of representing services over electronic networks such as internet. So for each e-service the value co-creation concept must be evaluated and the best way for that is using DART model, which helps to built initial blocks between customer and provider. [1] this model will help to understand the important aspect of connectivity between customer and provider.

The locus for value creation is the interactions between the firm and the customers. Such interactions can happen through four main building blocks of co-creation; dialogue, access, risk, and transparency (DART). It is an important(a significant) notion that these are interrelated, and should not be seen as separate blocks, and by embracing these companies enhances the opportunities for value co-creation. [2] Based on this model related questions to the blocks must design to ask from stakeholders during interview. It helps to elaborate attributes which collected from providers and customers that are value co-creators.

The history of e-services back to the age of services which discussion about that done by many authors like Sampson and Froehle in 2006. Services can viewed as every action with the purpose of making benefit for someone else which is independent of its result whether it is successful based on its objectives or not. [3] Value to the customer is the primary issue; whether that value is delivered through goods or services where goods mean as distribution mechanisms for service provision. [4] An e-service has been defined as a service available via the internet that completes tasks or conducts transactions. [5] E-service is deeds, efforts or performance whose delivery is mediated by information technology (including the Web, information kiosks and mobile devices). Such e-service includes the service element of e-tailing, customer support and service, and service delivery. [6] following this definition e-services encompass numerous sectors of social and public life, including information retrieval, e-commerce, e-learning, financial services, and e-government. [7]

On science and research, attribute is a characteristic of an object. In services, quality measured by a model which called service quality framework or SERVQUAL that developed in the mid of eighties by Zeithaml, Parasuraman and Berry and it is really important in a competitive organization environment. [8] As a measure of e-service quality, the E-A-S-QUAL model contains an extensive list of service attributes available on apparel retail web sites. SERVQUAL was originally measured on ten aspects of service quality: reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding the customer and tangibles. It measures the gap between customer expectations and experience. In this framework five major attributes used for measuring the quality of services. These attributes are reliability, responsiveness, assurance, tangibles, and empathy. [9] This model will help study to understand which processes don correctly or not.

E-Prints is a free and open source software package for building open access repositories that are compliant with the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH). [10] UTM used E-Print to built its own Institutional Repository which called UTM IR.

In this paper UTM IR chose as an e-service to find value co-creation attribute which influence on it.

II. RESEARCH OBJECTIVES

Based on the research background, the work conducted aims to find value co-creation attributes that influence on UTM Institutional Repository (UTM IR) as an e-service application. The objective of the done work will cover the following aspect:

- To find value co-creation attributes that influence UTM IR

III. RESEARCH FRAMEWORK

Currently, the work is conducted in three main phases. In Phase 1, Interview, the problem will be reviewed through potential literature such as reviews and case collections. The case study of this research will be studied in-depth in order to design structured questions during interview and also elaborate the limitation and potential that can lead to research. Content analysis is the method used to gather the information and DART model used as an instrument.

As in co-creation concept value made by provider and consumer or user, the respondents of this research divided in to two groups which were UTM IR providers and the users which were UTM students and lecturers.

In part of providers, six UTM experts used to collect data. The experts were including the top management and operational part in UTM Library (PSZ) and also technical part in CICT “UTM Centre for Information and Communication Technology” which just five of them were from PSZ and 1 of them was from CICT. In part of users just thirty UTM students those attended in research Methodology class in UTM and lecturers used for completing the data collection.

In Phase 2, Coding, After come up with the written of interviews’ answers, important points based on definition of DART highlighted and after that the related ones to each block grouped to come up with codes. Then for analyze the findings according to the objective of this study we need to categorize the codes. To achieve this goal we referred to the literature review. To find attributes from co-creation perspective we need to build the co-creation blocks that Dialog, Access, Transparency and Risk/ Benefit are related blocks.

Finally in Phase 3, List Attributes, based on the gape in each building block, related attribute will represented. The research framework derived is as in Figure 1.

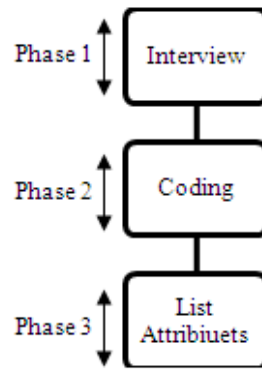


Fig. 1 Research Framework

IV. EXPECTED FINDING

As mentioned earlier the interview was designed according to the literature review of this study. The main instrument which helped the study is DART model. Accordingly the structured questions asked based on this model. So a table designed to make relations between findings that coded with building blocks. This part represent in to two categories which one of them use for provider perception and the other for user perception.

4.1. Coding providers’ responses

In this part, codes represented for provider’s group based on the objective of this study shown in Table 1. This table also has shown the devotion providers’ code into DART blocks.

Table 1: Coding providers’ responses

Code	Description	Number of respondents /6	Relations to the DART blocks
PC1	Users’ interaction by fill up forms or direct connect to the author to achieve complete data	3	D
PC2	Staffs’ interaction in order to complete metadata in form of phone or online communicate with depositor	3	D
PC3	Access at anytime and anywhere freely	6	A & T
PC4	Search in different ways	2	A
PC5	Advertising in the world to make rank	6	T
PC6	Access by easy process	6	T
PC7	Sharing and improving the knowledge	4	R
PC8	Lack of self archiving	6	R

4.2. Coding users’ responses

Also in Table 2 the significant points of interview with the active users of UTM IR which represent by code according to the objective shown.

Table 2: Coding users’ responses

code	description	Number of respondents/30	Relations to the DART blocks
UC1	Lack of platform for interaction	9	D
UC2	Access easily without suitable introduction	30	A & T
UC3	Lack of suitable search part for this simple system	30	A
UC4	Does not cover all projects	12	A & R
UC5	Share knowledge data	18	T
UC6	Unclear goal	6	T
UC7	Unreliable for upload material	25	R

4.3. Gap Analysis based Providers and Users

In order to find this attributes data coded and analyses done based on providers and users. From there the study can easily categorize attributes that influencing UTM IR from value co-creation perspective. In summary the attributes represent on table 3 based on analyzing the providers and users perception.

4.3.1. Dialog

Dialog Gap

Dialogue is the most important element for co-creating process, since market consider as a focus of conversation between customers and firms. [11] In this case Dialog will be a locus of conversation that implement on UTM IR. Based on this definition found that providers did not implement such a place for conversation as they said if users need more details to achieve complete data, they must fill up request form or direct connect to the author. Also they mentioned, in order to communicate with depositor for incomplete metadata staffs can choose form of Phone or online form. This matter emphasize by users as they said there is no place on this service to put our comments there. So it shows the attribute of this system based on Dialog block which is unavailability of platform for interaction. So it shows a gap about conversation through this system.

Suggested Attribute

This gap leads us to such an attributes like availability of platform for interaction which comes up based on the providers and users perception through co-creation of value perspective. As mentioned before providers believed that this platform is available but according to the users it is not.

4.3.2. Access

Access Gap

Access block refers to the level of access to data provided to one or more of the value co-creating sides and it begins with tools and information [11] and in this case providers made the searching part by different division on the menu from the interface of this service. They believed that the information for search the materials in order to access to the data make value for user that able them to access freely at anytime and anywhere. While the users believed that the search part is not good enough and the information is not enough to access through materials because all of them complain about the location and the name of this system and also they could not able to find all latest area of UTM research output.

Suggested Attribute

As mentioned above the gap between users and providers in access block was related to the usage of this system and also guidance for that usage. By this two significant we can come up with Usability and Trainable attributes through this block.

4.3.3. Transparency

Transparency Gap

Transparency is related to the level of clarity in objectives and actions between one or more value creators, and it is very closely related to accessibility as well as facilitates collaborative dialogue with consumers. [11] Based on providers, objective of having this system is advertising in the world to make rank based on usage of users and users thought this system implement to share all knowledge data but some of them mentioned it is not easy to find the goal of this system. Also the action that happened between both sides, take value for user because they can access at any time freely based on providers. Users believed that this system is easy to access through materials but the location and the name for this system is really bad to understand.

Suggested Attribute

The above significant related to transparency lead us to the level of Clarity, Visibility and Accessibility of this system which are attributes based on definition of transparency.

4.3.4. Risk and Benefit

Risk and Benefit Gap

Risk and Benefit means, “Customers need to get information about the advantages and disadvantages of the system that is value in use” [11] with the respondents perception the gap based on co-creation of value arise as follow. Providers believe that the advantage for users of UTM IR which works as a medium is knowledge sharing and facility the knowledge. Users also had the same idea; they believed that they could find the latest area worked but not all, which shows the little gap in the part of advantage or benefit. For disadvantages of this service, providers said lack of self archiving is the most important disadvantages for our user based on objective of UTM IR. Users believed that trust to the policy of system is really hard to put materials inside the system while they may come up whit unpublished materials.

Suggested Attribute

As mentioned above there is a gap in part of advantage or benefit of using this system base on respondents. Those definitions can come up with the attribute for Benefit block. This attribute is informative. Also based on definitions of Risk or disadvantage of using this system we can come up with the Transparent or on the other words Reliable attribute.

Table 3: UTM IR Attributes from value co-creation perspective

	provider		user	Attributes
Dialog	PC1: Users' interaction by fill up forms or direct connect to the author to achieve complete data PC2: Staffs' interaction in order to complete metadata in form of Phone or online communicate with depositor	Dialog	UC1: Lack of platform for interaction	•Availability of platform for interaction
Access	PC3: Access at anytime and anywhere freely PC4: Search in different ways	Access	UC2: Access easily without suitable introduction UC3: Lack of suitable search part for this simple system UC4: Find some of latest projects	•Usability •Trainable
Risk & Benefit	PC7: Advantage, Sharing and improving the knowledge PC8: Disadvantage, Lack of self archiving	Risk & Benefit	UC4: Advantage, Find some of latest projects UC7: Disadvantage, Unreliable for upload material	•Informative •Transparent •Reliable
Transparency	Objective: PC5: Advertising in the world to make rank Action: PC3: Access at anytime and anywhere freely PC6: Access by easy proceed	Transparency	Objective: UC5: Share knowledge data UC6: Unclear goal Action: UC2: Access easily without suitable introduction	•Clarity •Visibility •Accessibility

As can be seen from the table the codes which represent for each building blocks shown in order to come up with the attribute of each blocks.

4.4. Definitions of attributes

As in table 3 shown the UTM IR attributes that arise from the co-creation of value perspective, table 4 show the definitions of each attributes.

Table 4: Definitions of UTM IR Attributes from value co-creation perspective

Attributes	Definitions
Availability of platform for interaction	Able to be used or obtained a platform for interaction
Usability	Able or fit to be used a tool for access through data
Trainable	Able to train by providing information to access through data
Clarity	The quality of transparency or purity
Visibility	<ul style="list-style-type: none"> • The state of being able to see the objective of the system • The degree to which IR has attracted general attention; prominence
Accessibility	Able to be reached data
Informative	Providing useful or interesting information
Transparent	Easy to perceive or detect the objective and actions between provider and user; Open to public scrutiny
Reliable	Consistently good in quality or performance; able to be trusted

This definition can be use in order to elaborate e-services based on value co-creation perspective.

V. CONCLUSION

Now a days in businesses, services available via the internet, this called e-services which the quality of them is critical issue in this technological decades. Assessing e-services is an important issue in order to gain success for long term which one way is assessing e-services based on their attributes from value co-creation perspective which is a model for market strategy or business strategy that stress on the production and progressive realization. In co-creation value concept made by provider and consumer or user, the respondents of research will be divided in to two groups. After collecting data coding must be done and categorized based on DART model. Finally from there the gaps between users and providers must found in order to achieve the related attributes. The definitions of attributes that mentioned in this study will help to elaborate e-services based on value co-creation perspective. Doing the same process for an especial e-service by elaborate that with value co-creation and using DART model is the most important contribution of this paper. As value co-creation is a new concept in marketing, finding related research in this area was difficult and it can be mention as the limitation of this study.

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