



## CO-CREATION OF VALUE, VALUE IN USE INSTEAD OF VALUE IN EXCHANGE IN HIGHER EDUCATION

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### **Abstract**

*With the roots of industrial revolution, the Goods Dominant Logic (GDL) has defended the ex-parte value creation by an organization away from the customers during the last three and half centuries. In mean time, the globalization, social media, information systems, computer technology have strengthen the customers' buying behavior with remarkable new attributes. Prahalad & Ramaswamy (2004) pointed out four attributes of today's customers as informed, networked, empowered and active customers thereby new dominant logic called Service Dominant Logic (SDL) has appeared for creation of value (Vargo&Lusch, 2004). The core element of the Service Dominant Logic (SDL) is creation of value inter parte called co-creation of value.*

*In this context, the two continuum of value creation, traditional value creation, value-in-exchange and co-creation of value, value-in-use were quantitatively investigated on the premise of feedback system in a higher education institute and found by analyzing the perceptions of the students on an ordinal scale that the prevailing feedback system is a victim of Goods Dominant Logic and creates values ex-parte away from the students hindering their skill and knowledge for co-creating value depriving an operant resource available to the higher education institute.*

**Keywords:** *Value-in-exchange, Value-in-use, Co-creation of value, Goods Dominant Logic, Service Dominant Logic.*

### **Introduction**

Customer is central in every organization. An organization can't sustain without the satisfaction of customers whose satisfaction is dependent on the value created by the organization. Therefore the very purpose of an organization is to create value for mutual benefit. An organization promises value by its policy documents, promotional materials and the artifacts. Higher Education Institutes (HEIs) similar to other business organizations also promise to its customers the value/value proposition by their vision statement, mission statement, value statement, graduate profile and other similar policy documents, websites, promotional materials, technology, buildings and other after facts.

Di'az-Me'ndez&Gummeson, (2012) cited Zeithaml's (1988) classic definition of value as "the consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given". They further pointed out that the value of a higher education institute for its students as not short term but long term satisfaction on two factors: the education received from the higher education institute for the personal development together with employability and students implications in their teaching and learning process. In marketing perspective, the value simply means the reason/s why customers should come to the organization but not its competitors.

Organizations now create value for its customers in two ways, traditional value creation process and new value creation process. The traditional value creation process roots to Adam Smith's wealth of nations, Industrial revolution and Mass production. It is called embedded value or value in exchange. The terms 'embedded value'/'value-in-exchange' refers to value added by the organization in the factory with less or no interaction of the customers. The customer starts perceiving the value when the product is exchanged in the market. The organization which has got limited time to interact with the customers enables to gather incomplete information which cannot create value enough to be competitive. In mean time, competitors may have better understood the customers paving the way for losing the customers for those organizations.

With the passage of time, such an ex-parte creation of value inside the gates of the factory away from the market is not adequate in the presence of globalization, deregulation, outsourcing, convergence of industries, commoditization and the access to social media, consumer societies, consumer protection activities by the government and non-governmental organizations, information systems and computer technology that have strengthened the customers in their buying behaviour. In these circumstances, Prahalad & Ramaswamy(2004) pointed out that today's customers are informed, networked, empowered and active customers.

This scenario has changed the role of customers in the business environment. Customers are not further passive recipients of the value created by the organization away from them but they actively involve in creating the value for the mutual benefits of both, the provider and the recipients. The new process for creation of value is called co-creation of value which is different from traditional creation of value. Co-creation of value is a new development in service theory, is becoming not only a central concept in service research and service management but also a business strategy.



Prahalad and Ramaswamy (2004) pointed out that in this new approach of future competition “To be successful in co-creating value, firms must focus on a new set of “building blocks”, namely, in-depth dialog with customers, transparency to facilitate this potentially intrusive interaction, new kinds of access to information, and the freedom to exchange information (to assess and share risks).” In co-creation of value, the customers’ experiences are obtained by continuous interactions with customers that create value for customers are more effective than the creation of value by the organization alone with less interacting or without interacting with customers as it thinks of value expected by its customers (Prahalad & Ramaswamy, 2004). Vargo & Lusch(2004) differentiated the traditional value creation and the modern value creation pointing out that under the modern value creation an organization cannot create value but only offers value proposition but the value is co-created together with the customer who must determine value and participate in creating the value through the process of production.

This view is a shift of product or firm centered ex-parte value creation to inter parte value creation between the customers and the firm for mutual benefit. Whereas in product or firm centric value creation, customers are treated as outsiders, value is so created inside the organization for a period more than three centuries. Accordingly, the organization acts autonomously, namely, with less interaction of customers or without interaction of customers in designing the product, developing the production process, designing the marketing message and controlling the distribution and delivery. The organization used the market only for value exchange process and value extraction. Customers and their experiences were rather ignored. The notion of co-creation of value which creates value by the interaction between the informed, networked, empowered and active consumers, consumer communities and the firm in a systemic nature is the key issue in the new concept of service (Badinelli et al, (2012) cited Prahalad and Ramaswamy, 2004; Vargo and Lusch, 2004 &2008; Lambert and Garcia-Dastugue, 2006). Accordingly, co-creation of value is the modern method for creation of value open for any type of organization including higher education institutes

**Problem Statement:** Diaz-Mendez and Gummesson (2012) who carried out a research on student feedback system for assessing lecturer performance system in a higher education institute, cited Krehbiel et al., 1997; Chung and McLarney, 2000; Lawrence and Sharma, 2002; Sa´nchez-Ferna´ndez et al., 2010 and pointed out that the literature on higher education recognize students as service customers and further suggested co-creation of value in the interaction of teacher and students instead of traditional value delivery approach. In agreement with Lusch & Vargo (2004 & 2008), Macdonald (2011) points out that co-creation of value is superior to the embedded value in exchange.

The Higher Education Institute (HEI) subject to this study (here in after referred to as HEI) by its policy documents stipulates many feedback systems that continuously seek feedbacks from the students not only for assessing lecturers’ performance but also various aspects such as Module & Module contents, Library& other learning resources, Graduate profile and Learning environment. At a glance these feedback systems appear to be co-creation of value, value-in-use rather than traditional creation of value, value-in-exchange for the researchers of this study but pilot running of the research uncovers different attitudes and perceptions which invited to do this study. All these circumstances discussed above and below warrant to study the perception of the students regarding the whole feedback system of the HEI with the purpose of identifying the feedback system as a co-creation of value or not to make the feedback system more effective for mutual benefit. In order to achieve the purpose above mentioned, there are three objectives of this study. Research Objective 01: is to ascertain the perception of the students relating to the prevailing feedback system. Research Objective 02: is to ascertain if the prevailing feedback system creates the value under the traditional model or new model called co-creation of value. Research Objective 03: is to recommend the suitable model to the HEI.

**Research Questions:** In order to achieve the first and third research objectives, the following research questions are tested RQ. 01: Is there an experience environment created by the HEI in which students can have a dialogue and co-construct the value for the mutual benefit? RQ. 02: Are the students ready to co-create the value for mutual benefit? RQ. 03: Do the students perceive that they jointly co-create the value for mutual benefit? And RQ. 04: Is there an effective mechanism for joint problem definition and problem solving?

**Hypothesis Testing:** in order to achieve second and third objective the following hypothesis testing is carried out.  $H_0$ : The prevailing feedback system of the HEI corresponds to the traditional value creating model and  $H_a$ : The prevailing feedback system of the HEI corresponds to new value creating system, the Co-Creation of Value model.

### Literature Review

The history of Goods Dominant Logic (GDL) roots with the father of modern economics, Adam Smith in his classic work ‘the Wealth of Nations’ about free market economy elaborates free market, division of labour and productivity and explained productivity as the creation of surplus tangible goods that could be exported to enhance national wealth. This ideology in the background of industrial revolution and later Ford dismissed the importance of tangible goods, both manufacturing and agricultural goods for creation of value but ignored the service rather than services as a dominant role in an organization or



economy and paved the way to dominate goods centric organizations with goods dominant lexicon that includes “Product”, “Production”, “Goods”, “Supplier”, “Supply chain”, “Value added”, “Distribution”, “Producer”, “Consumer”, etc (Vargo & Lusch, 2008) during last three and half centuries.

In Goods Dominant Logic (GDL), the firm creates the value for customers away from the market with getting less involvement of the customer or without getting involvement of customer. The value so created is embedded by the firm in the goods and is offered to the customers and delivered to the customers when exchanging at the market at which the value creation process comes to an end with the transfer of ownership. This process of Goods Dominant Logic (GDL) is termed as value-in-exchange otherwise embedded value in exchange. In this Goods dominant logic process, the customer is rather a passive recipient of goods produced by the firm and did not actively take part in creating the value but merely participate for the transaction with skepticism about the value exchanged by the firm for the value exchanged by the customer but the firm has no such skepticism about the value created and delivered to the customers. After the transaction the customer starts experiencing value created and delivered by the firm when utilizing the goods but no experiences of the customer is systematically concerned by the firm with Goods Dominant Logic or the grievances of the customers may be delayed feedback for either party.

The Goods dominant logic mindset so developed for several centuries is now increasingly becoming inconsistent with the dynamically changing environment that made available sophisticated information systems and various advanced technologies for almost all the aspects of human activities such as from space travel to transport, telecommunication, manufacturing, Banking, constructions, agriculture etc specially during the last three to four decades. These phenomenon have transformed the role of customers who are today informed, networked, empowered and active customers in satisfying their needs (Prahalad and Ramaswamy, 2004). Hence, firms cannot further create, communicate and deliver value to the customer treating the customer as a mere passive recipient of the value created by the firm for the customer. In these circumstances, it is demanded a new service theory to address new phenomenon between the customer and the firm for creation of value.

After the devotion of many decades by service researchers in their service science discipline, the notion of Service dominant logic that theorizes, confirms and refines the theoretical foundation of service science (Lusch et al, 2008) was first introduced by the founding fathers, Vargo and Lusch(2004; 2008)by their seminal work of Service Dominant Logic (SDL) for mutual service exchange and value co-creation latter which explains a collaborative process of co-creation of value between the customer and the firm (Prahalad and Ramaswamy, 2004). In a nutshell, every firm, society and economy should be managed to exchange of service for service embracing the concepts of value-in-use by co-creation of value instead of value-in-exchange/ embedded value of Goods Dominant Logic (GDL). The foundational proposition of Service-Dominant Logic (SDL) is that every firm, society, economy is respectively service firm, service society and service economy even-though it produces tangible goods.

Service Dominant Logic (SDL) is therefore an organizing frame work of service (but not services) for adding value to the organization by a collaborative process by which knowledge and skills by way of competences are used for the benefit of another (Vargo and Lusch, 2008). Accordingly, the notion of Service Dominant Logic (SDL) which is based on 10 fundamental premises (Vargo and Lusch, 2004 ; 2008) made the word ‘service’ divergent from the word ‘services’ defining the word ‘services’ as the unit of product of the organization whereas the word ‘service’ is meant for collaborative process based on competences for adding value for the mutual benefit of the service provider and the recipient. Vargo and Lusch (2004; 2008) pointed out that Service Dominant Logic (SDL) is better to be considered as an organizing framework than a theory. Kryvinska et al., (2013) analyzing research articles published in scientific journals during the period of 2004 to 2013 pointed out that Service Dominant Logic is an applicable holistic theory but not just a framework as claimed by the founders. In Service Dominant Logic (SDL), Not the goods but the Service that creates value in an organization today. Service creates value for the mutual benefit of the service provider and the recipient of the service. Vargo and Lusch(2004; 2006)defined service as application of skills and knowledge for the benefit of another. A system in an organization that focuses on adding value by service is called service system. Customers, people, information, and technology are the key aspects of the service system (Mele and Polese, 2011). Maglio and Spohrer (2008) defines a service system as “a configuration of people, technologies, organizations and shared information, able to create and deliver value to providers, users and other interested entities, through service”. The elements of a service system integrate resources to create value that dominates in the developed economies as a co-creation of value between the customers and the organization (Qiu, 2009) or stakeholders (Makkar et al., 2008). Consequently, co-creation is the robust of the Service system/Service Dominant Logic (SDL). Vargo & Lusch (2004) pointed out “Prahalad and Ramaswamy (2000) note that the market has become a venue for proactive customer involvement, and they argue for co-opting customer involvement in the value-creation process. In summary, the customer becomes primarily an operant resource (co-producer) rather than an operand resource (“target”) and can be involved in the entire value and service chain in acting on operand resources”. In other words, suppliers (firm) and the customers are no longer on opposite sides but they interact with each other for mutual benefit (Galvango and Deli, 2014).



## Methodology

In this quantitative research, this study was carried out on a paper based questionnaire which was designed for eleven interrelated questions apart from demographic information to ascertain the perceptions of the respondents relating to prevailing formal and informal feedback system that the respondents experienced during their entire students' life of nine semesters. The Likert scale questionnaire intended to test the various aspects of feedback system which is important for the notion of co-creation of value. Before entertaining the questionnaire, it was pre-tested by two pilot running to check the prospective respondents' understanding and ability to respond the questions within a reasonable time in the classroom. The first pilot running was done among the peers of the researchers. The second pilot running was carried out with a small sample of students who were later subjected to the study as respondents. Having considered the feedback from the two pilot running few amendments were made to the questionnaire before the final version of five point Likert scale questionnaire.

This questionnaire was entertained in the latter part of 2016 with the only two batches of undergraduates who have been almost completing their software/networking programme of nine semesters. They were in a good position to express their independent view through their experiences of their nine semesters. Each batch consists of 22 students and therefore the population which is subject to in the study is 44 students (N=44) out of which 40 students (n=40) who have been in their classes at two occasions for their lessons scheduled. They have responded after a brief explanation of the importance of their contribution in developing the programme in the future. The remaining students (9%) were not available in the classroom at the time of distribution of paper questionnaire. There is no exception to the remaining 4 students not to respond if they had been in the class at the time of entertaining the questionnaire. 40 students who responded are a representative sample with a confidence level 95% and confidence interval (Error of margin) of 5%. However, A sample of 42 students are required for a confidence level of 99% but two more students were not accessible since the students have almost completed lessons in their last semester.

All the respondents were based at one of the campuses of the HEI and the feedback system is uniform throughout the campuses of the university. 61% of the respondents are female and 39% of the respondents are male. 83% of the respondents are below thirty years old and 94% of the respondents are below 35 years old.

This study collected ordinal scale data in relation to the perceptions of students regarding the prevailing feedback system of the HEI in order to accomplish the purpose and the objectives of the study. The ordinal scale data collected was analyzed with non-parametric tests. Likert type data was analyzed with mode and median and Likert scale data was used to test the hypothesis. In this regard, Kolmogorov-Smirnov Test (KS-Test) as an exclusive hypothesis testing was carried out.

## Discussion

The policy documents elaborate the value proposition that the HEI produces well rounded, employable and ethical graduates. In the process of creating the value for the value proposition, the policy documents of HEI seek formal feedback directly from the students with five tools, namely, the students' feedback system for each and every module of 26 modules during nine semesters, The appointment of class representative (CR) for each class for the staff-student consultative committees (SSCC), Academic advising programme, Students representative council and Grievance handling procedure. There is no any apparent barrier in policy documents for providing informal feedback by students when the necessity arises. The formal and informal feedback system above mentioned is in operation at the HEI.

The policy document of the HEI in relation to the Student feedback system stipulates the role of these management tools for feedback. For example, Student Feedback System (SFS) refers to "Education at your University is the transformation of you the student into an employable graduate as detailed in our Graduate Profile... This feedback form serves to gain an insight into your thoughts on how this process is occurring so that we can ensure that the educational transformation process does indeed achieve our common mission of the graduate profile. Please ensure that your feedback is true and fair to the institution, your lecturer and yourself. Please be as specific as possible in your feedback".

The class representative for each class & the staff-student consultative committees (SSCC) elaborates "SSCC exists to help student representatives meet with senior members of staff for formal, constructive and informative discussions on academic issues. The goal is to have ideas shared and discussed between students and staff to arrive at a consensus... Students who have grievances that affect a large number of students in their programme may choose to raise their grievances at these committee meetings through the class representative members".

Academic advising programs provides that it "plays an important role in enhancing students' educational experience at the University by encouraging students to think critically about their programme of study, their participation in extra-curricular activities and their efforts towards achieving the Graduate Profile."

When going through these policy documents it appears that there is a conducive environment for receiving the feedback from the students for co-creation of value. These respondents have now almost completed their student life time. All those





management tools for interacting with the students are in active operation and the management continuously presumes that the value is continuously delivered to the students as value promised in the graduate profile between the students and the HEI. Is this a reality? It is examined hereinafter.

The five point likert type questionnaire collected data for eleven questions to answer four research questions and to test the hypothesis.

**First Research Question:** The questions in the five point Likert questionnaire such as “Q2. Student feedback system for every module is the only feedback sought from me or other students during nine semesters and Q3. I myself or collectively through other classmates would have given more useful feedback to the management of my university to improve the value & quality of my programme during last nine semesters if the management had sought more feedback in addition to the student feedback”, were posed. Having analyzed them it was found out that despite of many management tools for feedbacks in operation that seek feedback from the students, the respondents displayed their unawareness of them by their statistical score: Mode 5 and Median 5 for each of the questions including the two questions above mentioned. The unawareness of students indicates that the feedback environment created at the HEI is not an experience environment created to have a dialogue and co-construct value to the customers.

**Second Research Question:** The questions in the five point Likert questionnaire such as “Q1. I myself or collectively through other classmates have given the feedback to the management of my university to increase the value & quality of my programme during the last nine semesters and Q3. I myself or collectively through other classmates would have given more useful feedback to the management of my university to improve the value & quality of my programme during last nine semesters if the management had sought more feedback in addition to the student feedback” were posed. Having analyzed them it was found out that the students have given feedback during their nine semesters and they were ready to give more feedback to improve the value and quality of their programme if the management had sought. Their statistical scores: Mode 5 and median 5 for both questions.

**Third Research Question:** The question in the five point Likert questionnaire such as “Q4. Overall I feel that our feedbacks have not been considered by the management of my university was posed. Having analyzed them it was found out that the respondent students’ perception is that their feedback is not positively taken into consideration with their statistical score Mode 5 and Median 4.5. In the absence of positive consideration of the experiences of students, there cannot be a co-creation of value.

**Fourth Research Question:** The questions in the five point Likert questionnaire such as Q8. If the feedback from the students had been taken I would have had a more competitive and comparative knowledge and skills than the students of other competitive institutes and Q10. If I had the opportunity I would have recommended to include more work related learning style and work based learning style into my programme in addition to internship module were posed. Having analyzed them it was found out that the respondent students perceive that they would have been more competitive than the students of competitive institutes, if they had received more work related learning and work based learning in addition to internship but they did not have an effective joint problem definition and problem solving mechanism to communicate with the HEI. The statistical scores: Mode 5 and Median 5 for both questions. These responses imply that they had problems to be jointly resolved. In other words, the value of the programme has not been co-created inter-parte but ex-parte.

### Hypothesis Testing

The eleven interrelated statements in the five point Likert scale questionnaire examined to ascertain the creation of value by the feedback system on the basis of significance testing. The value creation (Traditional value creation V. Modern value creation) is the independent variable and the perceptions of the students, strongly agree, agree, neutral, disagree and strongly disagree are the variables tested on the five point Likert scale questionnaire. Since usual parametric testing cannot be used for ordinal scales, an exclusive hypothesis testing procedure, Kolmogorov –Smirnov Test (KS-Test) that deal with ordinal scale was used here. KS-Test is more powerful than the chi-square test of goodness of fit when dealing with ordinal scales for decision making such as easier to compute. It does not have the problem of minimum frequency in each cell as the chi-square test requires.

KS-test compares the expected cumulative distribution function  $F_0(X)$  with the observed cumulative distribution function  $S_n(X)$  and find computed  $D = \max |F_0(X) - S_n(X)|$  as the absolute difference between the expected cumulative proportion and the observed cumulative proportion as follows:

	Observed frequency	Observed proportion	Observed cum proportion	Expected Proportion	Expected Cum Proportion	Fo(X)-Sn(X)
Strongly agree	231	0.58333333	0.58333333	0.2	0.2	0.38333
Agree	114	0.28787879	0.87121212	0.2	0.4	-0.47121
Neutral	30	0.07575758	0.94696969	0.2	0.6	-0.34697
Disagree	17	0.04292929	0.98989899	0.2	0.8	-0.1899
Strongly disagree	4	0.01010101	1	0.2	1	0

Accordingly, the computed D is -0.1899 which is compared with the critical D. The critical D value for a level of significance of 5% is calculated as  $1.36/\text{Square root of } n$ .  $n$  is the sample size. The critical D in this study is therefore 0.068343. Since the calculated D (-0.1899) does not exceed the critical D(0.068343), it does not reject the null hypothesis at 5% level of significance. The conclusion is that the prevailing feedback system of the HEI corresponds to the traditional value creating model.

### Recommendations& Conclusion

With the passage of time, the role of the students at HEIs have now changed from passive recipient of value created by the HEIs to co-creator of value with the HEIs in the presence of a paradigm shift from Goods Dominant Logic to Service Dominant Logic (Vargo & Lusch, 2004). Accordingly, students at HEIs are no more operand resources but operant resources. The knowledge and skills of students are useful for creating value for the mutual benefit of the students and the HEIs and therefore today the HEIs do not create value but only promise value which has two implications, one of them is that the service provider creates value with the customers for the value proposition. The other implication is that service provider can directly and indirectly influence the customers for their value fulfillment (Grönroos & Gummerus, 2014). In this regard, students have two special attributes than other customers in general. The interaction period of students with the HEI is very much longer than other customers and the other attribute is that the students at the HEI possess higher level of intellectual capacity for co-creation of value for mutual benefit.

However, various feedback systems that are in operation in the HEI in this study have been perceived by the students as ineffective mechanism for getting them involved in the creation of value. In other words students of the HEI were treated as mere recipient of the value created by the HEI and got them no or less involved in creation of value despite they were ready to co-create value. This adverse outcome has arisen unintentionally but by the designing and implementation of feedback system under Goods Dominant Logic(GDL) that victimizes the existing feedback system. Badinelli et al., (2012) point out that the value chains, value networks or Value creating systems are still important for creating value but they require a shift from the traditional paradigm, Goods Dominant Logic (GDL) to new paradigm, Service Dominant Logic (SDL). Makkar et al (2008) who carried out a research on value chain in higher education institute communicated with Professor Porter regarding the fit of value chain developed in 1985 with a service organization and received a response that he had overtly focused on the manufacturing sector while building value chain.

Hence, the HEI in this study requires a paradigm shift from Goods centric organization to Service centric organization (Sheth & Parvatiyar, 2000 cited in Judson&Taylor,2014) by treating students as operant resources but not operand resources in co-creating value for the mutual benefit taking students knowledge and skills into the co-creation of value. Vargo&Lusch (2004) explains the nature of service centric organization as "The service-centered view of marketing implies that marketing is a continuous series of social and economic processes that is largely focused on operant resources with which the firm is constantly striving to make better value propositions than its competitors".

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