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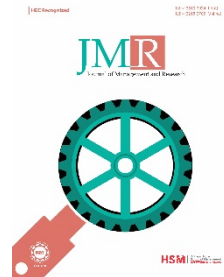
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Role of Customer Participation in Technology Innovation in Higher Education Institutions (HEIs): A Qualitative Study on Value Co-Creation and Co-Destruction

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Abstract

Bringing innovation to organizations is not only considered to be a growth strategy but also a way to survive in the current technological era. Technological innovation involves customer participation and engagement for value co-creation and co-destruction, which raises new challenges in theory and practice. It becomes more challenging in the service industry, specifically the education sector. Limited literature is available regarding different roles played by the participating customers during technology innovation. Therefore, an empirical study was needed to explore the role(s) of customer participation in the entire process of co-creation, the drivers for customers' positive engagement, and the reasons behind the negative engagement of customers while participating in technology innovation process. The negative engagement of the customers not only hinders the success of the co-creation process, rather it also causes co-destruction from multiple aspects. The current study followed the qualitative method to explore the phenomenon of value co-creation and co-destruction. In order to perform this task, semi-structured in-depth interviews were conducted with the representatives of Information and Communication Technologies (ICT) firms and Higher Education Institutions (HEIs) of Pakistan. The collected qualitative data was sorted in Nvivo 13 and thematic analysis was performed. The study concluded with the identification of multiple roles/dimensions of customer participation to foster or hinder the co-creation process. The major beneficiaries of the study include ICT firms and HEIs which need to re-assess their business processes. The study also contributes to the evolving theory of value co-creation, while engaging the actors (customers).

Keywords: customer participation, Higher Education Institutions (HEIs), service industry, technology innovation, value co-creation, value co-destruction

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Introduction

The concept of innovation extends through technology. In order to address different issues and overcome challenges, innovation assists to establish or improve services in the service industry. However, technological innovation emphasizes the technological aspects of improvement in services instead of capturing the whole organizational portrait. Nevertheless, technology is not the only ingredient for innovation (Gyimah, [2020](#)). In order to compete in today's technological and advanced era, business firms are continuously transforming themselves through technological innovation. Bringing innovation may include new ideas to create value for the firm and its respective stakeholders including customers, partners, and governmental agencies. Therefore, innovation can safely be claimed as the key strategy for the firms to continue in the upcoming challenging market. Many of the corporate strategies, such as the selection of business sites, financial strength, competent labor, and technology help companies in becoming competitive. For instance, e-commerce compelled the companies to revise their business models and overcome the limitations of distance, space, and time. New business ideas are promptly encouraged through finance and opportunities. Technological advancements are found at a high pace, particularly in Information and Communication Technologies (ICT). However, the product life cycle of such technologies is extremely short. Hence, systems developed based on such strategies seem to have a very short product life cycle which doesn't let companies stay competitive in the long run (Lee et al., [2012](#)). A study conducted on ICT by European Commission in 2009 revealed that 75% of the users of ICT tools were in more trouble due to the absence of their required features (Rizkiana et al., [2021](#)). It was then recommended that user-centric development must be encouraged to address the actual needs of the users and lift the innovation process.

Lee and Miozzo ([2019](#)) highlighted the importance of innovation in the service industry, particularly universities while declaring them as strategic partners for the firms. Their research explored different characteristics of universities in terms of knowledge base and organizational learning, contributing towards collaboration with corporate firms. However, many challenges were found while studying the innovation and collaboration between universities and firms since most of the service firms didn't have properly defined Research and Development departments followed by

structured governance. In comparison to the manufacturing industry, the service industry usually requires effective customer and public relations management, implicit knowledge, and customized solutions. These constraints play an important role while bringing technological innovation to the universities where universities are treated as homogenous entities (Lee & Miozzo, [2019](#)).

Since businesses are facing high competition in the current era, enterprises are also exploring different ways to retain their customers. Along with an increase in demands by the customers, the researchers and practitioners are highly focused on customer participation in the development and offering of products and services. Through the same input from customers, the firms are promoting their sales, bringing quality to their products, increasing overall customer satisfaction, avoiding financial risk, and raising their competitive advantage (Di Gangi & Wasko, [2009](#)); (Brodie et al., [2013](#)). According to Vargo and Lusch ([2004](#)) and Prahalad & Ramaswamy ([2004](#)), the markets immensely need joint contributions by customers and firms for future competition. The researchers around the world are now trying to analyze the influence of customer engagement in the overall value-creation process. Harmeling et al. ([2017](#)) defined the same concept as an effort by the organization to encourage, authorize, and measure customer offerings to achieve mutual goals and eventually bringing a shift in business practice. Customer engagement for co-creating value is of high importance which has been addressed by multiple researchers.

Despite its acclaimed positive outcomes, there is a big question mark on the effectiveness of customer-firm interactions which reflects the reservations on ensuing customers' benefits (Anderson & Ostrom, [2015](#)). Customers are also reported to experience a loss of their resources, self-efficacy, self-esteem, physical energy, time, knowledge as well as emotional energy (M. Smith, [2013](#)). Zhang et al. ([2018](#)) referred the co-destruction as an outcome of angry customers because of scarce resources, failed technology, and misunderstandings which eventually resulted in the failure of acclaimed co-created value. Earlier, Bateson ([2002](#)) emphasized the role of expectations at each party's end during an interactive process, however, it was explored that the expectations were usually not met when one or all of the parties didn't play their defined role(s) (Kashif & Zarkada, [2015](#)). On the other hand, skeptics of the 'customer-oriented' approach have

broadly criticized firms' inclined attitude towards customers by creating a social imbalance between employees and customers. Firms usually prefer customers over employees as the former is considered to be a revenue-generating source (Osborne & Ballantyne, [2012](#)). It has been further shared that customers not only misbehave, they also take advantage of their superiority set by the firms and demand unreasonable facilitation during the interactive value co-creation process (Kashif & Zarkada, [2015](#)).

To understand the phenomenon of value co-creation and co-destruction through social interaction, this was important to synthesize available literature in the relevant areas. However, such exclusive exploratory research wasn't found to the best of the researchers' knowledge (Li & Tuunanen, [2020](#)). They structured a review paper in the same area, however, it lacked empirical evidence to explain the value co-creation and co-destruction. Considering customers as interpreters and contributors in the value co-creation process (Gummerus, [2013](#)), very limited research is available on customers' role in terms of context like how they act as interpreters, contributors, or destroyers of value (Sahhar & Loohuis, [2022](#)). This called for an exclusive study to explore different dimensions of customer participation either to co-create value or co-destruct, in a specific context.

Research Objective

The phenomenon of value co-creation and co-destruction in the service industry, particularly in academia, needs to be cultivated from regulatory, strategic, and operational aspects in order to continue its way towards innovation. The available literature on technology innovation, through the value co-creation process in the academic sector, reflects a huge gap in examining the role of customer participation from different aspects to drive or hinder the co-creation process. The subject study aimed to examine the phenomenon of value co-creation and value co-destruction due to customer participation by describing the essence of their experience with technology innovation in the HEIs of Pakistan. It intended to explore the possible roles of customer participation while elaborating the nature of their direct interaction with ICT firms and the consequences of such interactions.

Research Questions

1. How does customer participation co-create and co-destruct value in technology innovation while interacting with ICT firms?

2. How does customer engagement cause co-destruction instead of co-creation while interacting with ICT firms?
3. What keeps a customer engaged/committed in the value co-creation process?

Significance

The current study aimed to facilitate academia by exploring the essence of value co-creation and co-destruction through customer participation with ICT firms. It would contribute to the developing theory of value co-creation and value co-destruction. Besides, it would benefit the ICT firms to propose value co-creation platforms to respective customers in alignment with their expectations, emotions, capabilities, and relevant social contexts. The study offers multiple managerial implications to service providers and the academic sector by focusing on both, the relation and the mechanism between customers' value experiences and the process of co-creation and co-destruction of value. It would also assist the design and development teams to analyze actors' (customers) needs and input for transformation from an existing to a modern system.

The current study would facilitate the service industry, particularly academia for identifying, analyzing, and remedying potential challenges in value co-creation and eventually avoiding co-destruction because of customer engagement/participation. HEIs would also be able to reduce/avoid the strategic, operational, and financial loss because of co-destruction. As an outcome of the subject study, the ICT firms would be able to shift their conventional focus from attention-seeking to interaction with customers in order to extract their experiences for the firm's future endeavors.

Technology Innovation in Universities

The application of knowledge through science to bring ease to human life is known as technology. The innovation encapsulates new ideas or imaginations with a practical reality which is the application of better solutions to fulfill current or upcoming needs. The identity of innovation is hidden in its originality. It involves the practical implication of an invention in order to influence the society in a meaningful way. Gyimah (2020) defined technology innovation in an organization as a process of realizing the importance of a certain technology to use it as a source of bringing innovation in order to gain a competing edge in the market. The

competitiveness of such an organization may include cost effectiveness, process refinement, data management, transparency, data integrity, customer relationship management, information flow, and overall business operations. It reflects the consideration in businesses to improve offered value through technological aspects. Moreover, it is not about one unique technology within the organization, however, the combination and integration of different technologies to bring desired results while preparing and offering the products/services successfully.

Governance of higher education is getting important in the current era of revolutionary competition. The academic management systems need transparency in the universities. A well-structured governance system also leads towards accreditation predicate from renowned national and international quality assurance bodies. Technology innovation is supposed to be the major driving force for refinements, particularly in educational innovation which could be compatible with the requirements of the respective countries (Rajiani & Ismail, [2019](#)). Technology innovation plays a significant role to establish and maintain a strong governance system, specifically through academic administration, recruitment of staff, financial matters, and students' activities. Therefore, most of the universities willing for established governance are leading towards Enterprise Resource Planning (ERP) (Rizkiana et al., [2021](#)). Many universities are disseminating messages and communicating with other stakeholders through conventional ways, however, keeping in view the competition in the technological era, especially the circumstances after COVID-19, several universities had to implement ERP or similar integrated management systems (Kashif et al., [2020](#)). However, there are high concerns about ICT firms being vendors and universities being clients regarding the usage and efficiency of these systems (Chondamrongkul, [2018](#)). Afridi ([2021](#)) also highlighted the achievement status of technological innovation in Pakistani universities. He was of the view that despite the available infrastructure in the country, the progress pace in terms of learning and applying digital technologies wasn't achieved. Organizations intending to improve operational efficiency adopted the infrastructure of Enterprise Resource Planning (ERP) systems globally. The trend of using such systems in business firms opened new research horizons to investigate the overall implementation of these systems (Ifinedo, [2006](#)). The service industries including HEIs are adopting Enterprise Resource Planning (ERP) to

technologically innovate their business models, where ERP is emerging in several HEIs (Al-Lozi & Al-Qirem, [2021](#)). Emhmed et al. ([2021](#)) further enlightened that many universities intended to bring ERP systems in anticipation of improvement in their performance, however, the requirement set of a university varied from any other commercial service provider. Therefore, the process of implementation was also different in an educational environment. The universities use ERP to improve their academic and administrative services. It also counts in the refinement of student services, the transformation of streamlined processes, transparency and integrity in data, and eventually an increased operational efficiency (Kumar & Gupta, [2012](#)).

Value Co-creation and Co-destruction

Value co-creation is an emerging area of study in academia. The customers are considered to be active participants to co-create value along with the service providers. The value is co-created through the participation of different actors including representatives from firms, customers, partners, and regulatory offices. (Vargo & Lusch, [2004](#)). The firm's role is also transformed from value provider to facilitator. On the other hand, the customer is also considered a value co-creator, value user, value evaluator as well as value destroyer. The customer's participation can not only cause co-creation but also co-destruction of the proposed value (Järvi et al., [2018](#)). However, the lack of empirical studies to determine possible dimensions of customer participation during the process calls for an exclusive study.

The question arises, is it always 'value' which is co-created or it may result in co-destruction too? Value can also be destroyed due to such interactions, particularly, when one of the interactive parties misuses the resources (Plé & Chumpitaz, [2009](#)). There could be various reasons behind co-destruction including ineffective use of the firm's platform for interaction (Grönroos & Voima, [2013](#)). Järvi et al. ([2018](#)) named service failure for a customer as value co-destruction. It was further shared that all interactive relationships might not result positively, however, they can also end up with negative outcomes in terms of destruction of service and/or experience (Zhang et al., [2018](#)). The co-destruction may be observed when there is a scarcity of resources, such as 'information' or inadequate communication at one or both ends (Vafeas et al., [2016](#)), and actors are unable to integrate their available resources in order to proceed further (Plé & Chumpitaz, [2009](#)). There is no doubt in the facilitation of co-creation

through smooth connections but miscommunications, functional failures, and structural roles in organizations can trigger dissatisfaction (Zhang et al., 2018). In a nutshell, any type of co-destruction may lead to frustration and loss of resources including tangibles and intangibles (Prior & Marcos-Cuevas, 2016). However, considering the ground realities of interactive value co-creation, Plé and Chumpitaz (2009) emphasized that it was also difficult to ensure a perfect service delivery without error. Nevertheless, the frequency and nature of such errors can be reduced through close observation of interactive processes and recommendations of appropriate remedies for the issues.

Methodology

The current study aimed to explore the possible dimensions of customer participation in value co-creation and co-destruction while innovating technology in their firms. It followed qualitative methods to collect the data. The population of the subject study comprised of ICT firms and HEIs of Pakistan, which strived to innovate their technological environment through local innovation paradigms. The types of technological innovation included designing, preparation, deployment, and installation of Integrated Management Information Systems and/or Enterprise Resource Planning (ERP). Considering the rigor of the study, which is based on consumer participation in the value co-creation process, it was intended to approach such customers (actors) who had participated in the value co-creation process with Information and Communication Technology (ICT) enterprises. In order to derive the relevant data, Purposive sampling was followed as it groups participants according to pre-selected criteria relevant to particular research questions. The sample size was also based upon reaching a point where redundant responses started appearing in the data collection. Since there was no predefined and specific number of participants earlier, therefore Purposive sampling was the most appropriate sampling method for the subject study.

The representatives from both sides, that is, ICT firms and HEIs, were the targeted respondents for data collection. The customers (HEIs) participating in the value co-creation process were the targeted respondents in order to collect their responses to explore their overall behavior towards the value co-creation process. On the other hand, supplying technology innovation to the HEIs is the responsibility of the ICT firms where their

project managers/liaisons also engage in the whole process of value co-creation. Therefore, they were also approached for data collection. The designated focal persons/project managers/project liaisons by both types of firms were the units of analysis as they were involved in the value co-creation process. The diverse audience assisted in matching and exploring the phenomenon from both ends. The respondents were approached for semi-structured in-depth interviews to collect qualitative data. The data was collected professionally while following ethical obligations as follows:

- Mutual respect and trust were retained.
- Despite different ideological disagreements, respect for social and cultural contexts was sustained.
- Voluntary participation by the respondents was highly appreciated and acknowledged.
- Informed consent was taken by the respondents before collecting the data.
- Data confidentiality was protected at all stages of data collection, analysis, and reporting.

Data Analysis and Results

Interviews were recorded on the paper by using an audio recorder which was used for conversion in transcription. The transcription was executed through an online platform, <https://otranscribe.com>. The transcriptions were then sorted out in NVivo 13.0, Release 1.6.1 (4830). The software helped in conducting “Thematic Analysis” of the collected qualitative data.

Details of Interviews

Before conducting in-depth interviews of the Project Managers/Liaisons of ICT firms and HEIs, they were electronically briefed about the research objectives, areas of discussion, the theoretical conceptualization of co-creation, and co-destruction. Moreover, before each interview, there was an informal discussion ranging from 15 to 30 minutes, to further clarify the respondents so that they don't get confused with theoretical terminologies. Eight interviews were conducted with the Project Manager/Liaison of ICT firms and HEIs of Pakistan with prior experience in technology innovation in their respective service industry.

Table 1
Duration of In-depth Semi-Structured Interviews

Interviewee Number	Duration (In minutes)
Informant 1	135
Informant 2	70
Informant 3	60
Informant 4	55
Informant 5	90
Informant 6	115
Informant 7	80
Informant 8	120

Table 1 exhibits an overview of each informant (interviewee) with the duration of the interview.

The data was collected by Project Managers/Liaisons who had experienced the technology innovation process in the service industry, representing either an ICT firm or HEI. Fortunately, it was determined that one of the informants belonged to an HEI at the time of the interview, however, earlier was a part of an ICT firm during the technology innovation process. This informant along with other informants from both sides helped to explore value co-creation and co-destruction comprehensively while narrating the situation at both ends. Based on the data collected from interviews, primary codes and subthemes were generated which further led to the theme generation, review, and definition. Main theme of the study was developed as Dimensions of Customer Participation which included different subthemes as stated in the coming sections.

Main Theme: Role(s)/Dimensions of Customer Participation

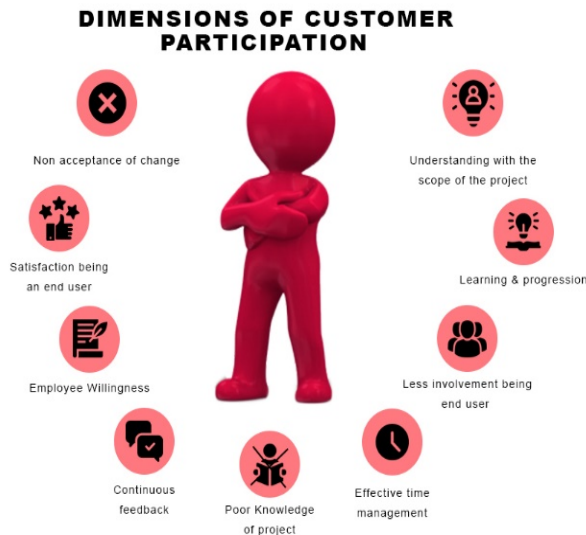
Multiple roles of customers were explored as a result of their participation during the interviews. The collected data explored different areas of customer participation and their diversified roles while interacting with the ICT firms for technology innovation. Figure 1 exhibits multiple roles of the representatives of client organizations (universities).

Customer engagement and participation are crucial for a project's success as shared by one of the informants:

“Without customer engagement, we can't successfully achieve the project. The user interaction with the ICT firm brings different scenarios. It is always a different frame when we are dealing with a new client.”

During the interviews, it was found that customer involvement could be described in different ways. It is not necessary to count customers' active and/or verbal interaction with the ICT firm to name it “Participation”, instead, customers' orientation towards change, intention, time management, knowledge about the project/process, willingness, learning, and feedback and/or overall understanding of the project can be called dimension(s) of their participation. All explored dimensions significantly contributed towards the phenomenon of value co-creation or co-destruction as described in the following subthemes.

Figure 1
Role(s)/Dimensions of Customer Participation



Subtheme 1: Attributes of Customers' Positive Engagement

Many attributes were explored in the customers for their positive engagement during the value co-creation process and the process excelled towards success.

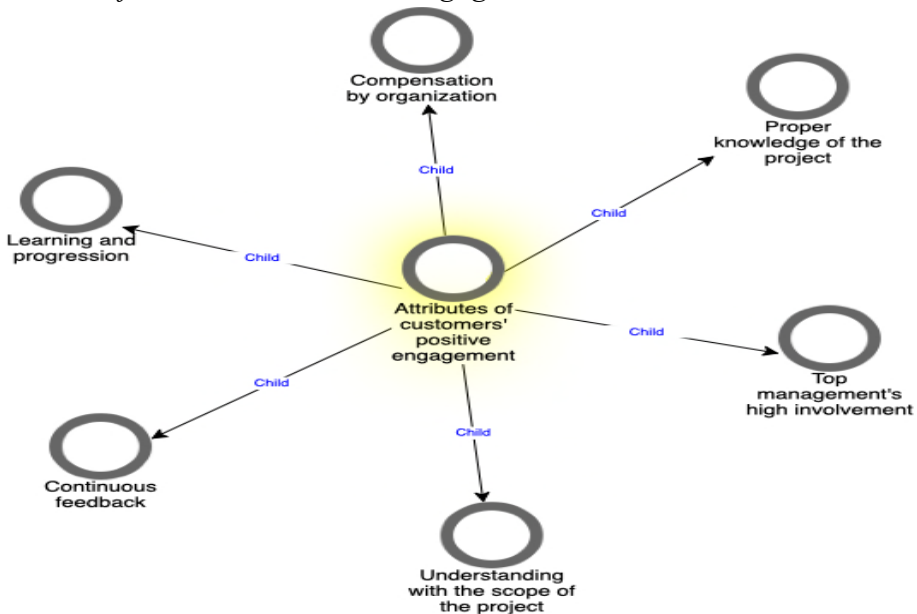
Multiple dimensions of customer participation were based on the positive engagement of the representatives from customer firms. While

discussing different “Attributes of Customers’ Positive Engagement”, the respondents mentioned “Compensation by Client Organization” for its focal persons as a highly motivating element. The existing employees have to spare their extra time and energy for the shared goals of the organization for which their motivation can be boosted through compensation from different aspects. One of the informants stated this experience as follows: “The recognition of their work also leads towards positive engagement.”

Another informant endorsed the same viewpoint as follows: “Top management's involvement and extrinsic and intrinsic rewards play a vital role in keeping them engaged.”

Figure 2

Attributes of Customers’ Positive Engagement



“Continuous Feedback” to and from ICT firm also plays a positive role as it keeps the project on track, focused, and achievable within defined timelines as illustrated by one of the informants as follows:

Frequent and iterative interaction with the customer is very necessary. The timely interaction is also important because the customer may get different requirements than the early ones which would affect the scope of the project. The term timely interaction is

better named as Weekly Status Report which updates the customer about our development stages.

The participants also stay positive and highly encouraged when they are aware of the learning curve with new technology. Once they realize the importance of technology literacy, they are more inclined towards developing their careers either in the same organizations or relevant markets. The attribute of “Learning and Progression” was duly endorsed by an informant as: “I observed positive engagement from the customer side when they had the idea of progression by getting involved.”

Moreover, the respondents also shared their views on positive commitment and engagement of the participants when they were taken in the loop and their organizations shared “Proper Knowledge of the Project” with them. According to the findings, the participants felt “trusted” and “important” when top management developed their “Understanding of the Scope of the Project”. Other than this, “Top Management’s High Involvement” also triggered positive contributions by the participants. Different informants shared their views on this involvement from different aspects. For instance, one of the informants emphasized top-tier’s engagement as the driving force for the co-creation process as follows:

As far as people get the awareness of the ease of their work as an outcome of their project, top management stays involved for the intended change; the system's positivity is ensured, and the process leads towards co-creation. The top management is the driving force for co-creation.

Another informant described the same experience with a different perspective of motivation for the employees as follows: “The CEO's own motivation and inspiration and the trickledown effect are highly necessary to keep the customer engaged.”

One respondent cited high management's engagement in close monitoring of the nominated focal teams as a good contribution to achieving the desired results on time and within budget.. In case of less involvement by the top tier, the respondent also proposed an alternative of sub-committees to keep progress track of the process.

“The organization should also be strict at certain stages with the performance of focal teams to keep a proper check and balance. If an organization is showing less engagement, then sub-

committees/restructured project teams should be formed to keep it leading towards positive engagement.”

Subtheme 2: Attributes of Customers' Negative Engagement

The informants of the study expressed different attributes of customers' negative engagement-participation during the technology innovation process which according to them disrupted the co-creation process. The respondents shared the negative aspects of participants of the co-creation process, which were narrowed down and specified through codes/nodes in the mentioned software.

The respondents experienced a fear of “Job Insecurity” in the participants from customer organizations. They shared that majority of aged and senior employees were reluctant towards the innovation of technology at their workplaces as they were settled on either manual systems or existing technological frameworks. The participants of the value co-creation process, as shared by the informants, somehow intentionally raised hurdles during the process to secure their jobs in the same organizations. “Job security! as they fear to get exposed from the transparency of the system.”

Another informant expressed its views as:“The focal people had fear of being replaced or exposed and side by side activities from the firm.”

One of the informants aided that along with job insecurity there was also an issue of “Non-acceptance of Change”. The customer organizations despite knowing this and other demotivating factors didn't take any corrective measures:

Poor engagement usually occurred in case of the demotivating environment, fear of losing the job because of new technology, non-acceptance of change, and non-compensation of the extra workload. Wherever the organization didn't pay attention towards these issues, negative engagement of the users was observed.

The incubation of new technology also needs high involvement of the end users of the proposed system which, if not found during the process, becomes one of the barriers to bring in the required change. The “Less Involvement of End Users” was also reported as one of the negative attributes of customer participation.

The negativity happens because of not taking the juniors (system users) on board while taking such decisions. Therefore, the end user is always demotivated. They are not transferred the knowledge required for such projects. If knowledge is properly transferred by their supervisors without the fear of losing their jobs, the situation can be different.

Most of the informants were of the view that nominated focal persons of the client organizations and other involved participants were asked by their top management to contribute to technology innovation voluntarily. Therefore, “Non-compensation from Organization (client side)” brings negative engagement in the participants of the process. Employees look for rewards from the organization for their extra effort, as shared by one of the informants:

The liaison people usually lose their attention in the co-creation process when they expect some rewards from their organization but don't receive anything in return. The probability of co-creation instead of co-destruction increases when intrinsic or extrinsic rewards are given to the employees. Their demotivation increases because of non-compensation of the extra workload.

Another informant endorsed the same viewpoint as follows: “The participants don't get any monetary benefit from the organization which causes their demotivation. The parallel routine work of their routine JDs and lack of recognition of their extra work brings negative engagement in the process”.

“Top Management’s Low Involvement” also hinders the process of co-creation by triggering negative associations in the participants during the process of technology innovation. The top management’s involvement and motivation to be trickled down to its employees was comprehensively narrated by one of the informants as:

60% of ERP projects fail because of less involvement of higher management. The process will not be successful without higher management involvement. For instance, at one of our client's organizations, one department head is not running our solution. The reason is that the respective head delegates its juniors for training and conflict resolution. The head of the department itself should have a keen interest and motivation for the successful process. The

CEO of the subject organization passed a tender in the market before buying our solution and after comparative analysis, they decided to co-create with us. Now the question arises, did the CEO pass on the same motivation to its department heads? There is always a trickledown effect from top to bottom. If the CEO didn't motivate its department heads by not getting them involved in buying decisions, the department heads might take it personally. They might take it very negatively. They also might think that their performance will then be monitored through such a system; therefore, they would raise resistance to the application of the bought solution. They could also participate in malfunctioning of the system.

Keeping in view the respondents' information, it can be safely argued that top management's high involvement from different aspects including motivation for employees, intention to prosper, new (technological) culture, and monitoring of the process is highly critical to create value in collaboration with all relevant stakeholders.

Subtheme 3: Ways to Increase Customers' Positive Engagement

In addition to overcome the challenges of negative engagement of the customers, the informants stressed to increase customers' positive engagement through different activities as expressed in Figure 3.

The dissemination of the project scope needs to be executed to increase participants' engagement. The respondents experienced flaws in the process only because the participants were not informed well. One of the informants proposed as following:

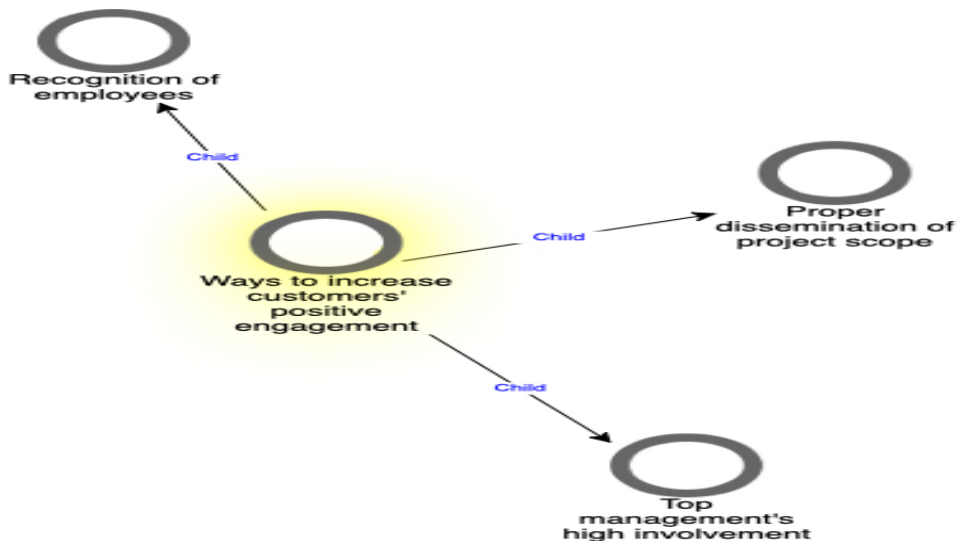
Educate your employees about the project objective as they are the ones who have to contribute to the change you are looking for. If you don't brief them on the project scope, their own learning curves, and the overall strength of the project; you shouldn't expect a successful venture in the end.

The compensation in terms of rewards and recognition was also further supported by one of the informants as follows: "Give them a complete picture along with importance. Organizations need to seek input from their employees (users) and discuss required innovation in the system. They should also incorporate intrinsic or extrinsic rewards for the contributors.

Top management's high involvement was also highlighted by respondents to make the process successful through the positive engagement of the customers.

The organization should also be strict at certain stages with the performance of focal teams to keep a proper check and balance. If an organization is showing less engagement, then sub-committees/restructured project teams should be formed to keep it leading toward positive engagement.

Figure 3
Increasing Customers' Positive Engagement



Discussion and Conclusion

Following the research objectives and research questions, the current study focused to explore different roles of customers, participating in technology innovation, assisted by ICT (vendor) firms in HEIs of Pakistan (customer organizations). The interpretation of collected primary data focused to revisit the facets, issues, and recommendations related to value co-creation and co-destruction. The study revealed different perspectives of customer participation from universities which not only co-created the value but also co-destructed. It also emphasized to explore the necessities required for the successful co-creation of technology innovation. Moreover, it also collected different participants' views on the reasons causing co-destruction instead

of co-creation which further led to find out the drivers and barriers in the entire process of value co-creation.

Most of the previous studies presented a firm-based view on value co-creation and minimal research is available on customer participation from individual and organizational perspectives (Rashid, [2015](#)). The subject study concluded with the identification of multiple dimensions of customer participation, different attributes of customers' positive and negative engagement during the value co-creation process, and ways to increase the positive engagement of the customers. These dimensions and the way a customer can participate in the process was explored in the study which included understanding the scope of the project, intention for learning and progression, continuous feedback, engagement in the process being end users, time management, knowledge of the project, willingness to contribute, satisfaction with the new system being end users, and participants' attitude for either accepting or not accepting the change in the new system.

The current study comprised of data collected by both types of respondents (vendor and customer) in order to understand the phenomenon of value co-creation and co-destruction. It addressed customer engagement as an important factor in the process of co-creation. It explored such attributes which could cause successful co-creation through customers' positive engagement while participating in value co-creation. The explored attributes which enhance positive engagement of the representatives of customer organization include compensation by customer organization, participants' intention for learning and progression through technology innovation, customers' continuous exchange of feedback within the customer's firm as well as with ICT firm. Moreover, these attributes also include participants' broad understanding with the scope of the project, high involvement of top management in the customer organization, and proper knowledge of the project possessed by the participants. The cited literature and outcomes of the research also emphasized to address these attributes to be considered by the customer organizations in order to enhance their representatives' positive engagement for the success of value co-creation. Schulz et al. ([2021](#)) also explored different motivations/drivers, such as willingness, desire, and self-interest for the engagement in the entire process. However, their study comprised of the transportation industry only

in the context of Germany. Whereas, the subject study purely emphasized technology innovation in the HEIs of Pakistan.

The current study also explored the barriers (attributes) in the way to a successful co-creation because of customer participation and relevant engagement at the individual as well as organizational level. These barriers cause significant co-destruction of value while innovating technology in universities. The explored attributes included refusal of change by employees/end users of the system which was also highlighted by Homburg et al. (2017) and Volberda et al. (2012). Further attributes included: less involvement of end-users; top management's low involvement in monitoring, evaluating, and supporting the entire process; non-compensation from customer organizations to their liaison team members involved in the entire process; poor knowledge of the project possessed by involved participants, also mentioned by Vafeas et al. (2016); and job insecurity as a threat to employees as a result of new technology. Keeping in view the explored barriers in this study, it can safely be argued that most of the attributes causing negative engagement of the customer are contextual, particularly in the area of technology innovation in universities, as they weren't substantially addressed in previous studies. For instance, non-compensation by the client organization (customer) and insecurity of the job of its engaged employees in the co-creation process are highly influential attributes that trigger the co-destruction in the process.

In the light of data analysis of the interviews conducted during this research, HEIs are proposed to focus on attributes which are likely to cause co-destruction of value during the technology innovation process. Additionally, the respondents of the study suggested the customer organizations to recognize the efforts of their liaison team members. Such recognition plays a vital role to increase the positive engagement of the representatives of customer organizations.

Implications

The current study contributed to the developing theory of value co-creation by enabling value formation and realization in social interactions in a service ecosystem. It not only focused on different mechanisms for successful co-creation, but also adhered to identification, anticipation, mitigation, and prevention of value co-destruction. The exploration of the phenomenon through empirical study proved that value co-creation existed

not only in theory but in practice as well. The study offered comprehensive guidelines to the HEIs for co-creation through customer participation while interacting with ICT firms. The study revealed that such type of co-creation activities, particularly for technology innovation, should be cautiously planned, designed, facilitated, and evaluated. It would help HEIs to prevent or reduce the magnitude of co-destruction. Moreover, the study suggested HEIs and ICT firms to devise their strategies for social interaction critically in order to minimize the risk. It further suggested different improvement areas to be considered by HEIs including effective human resource management, change management, training and development, organizational development, market research, and communication channels. These preemptions would help HEIs to appoint and retain the most appropriate teams who can actively participate in the success of the co-creation process.

Limitations and Future Research

The current research was conducted in the context of technology innovation in the HEIs of Pakistan and followed a qualitative method. Despite achieving the research objectives and answering research questions, there is still a need for more knowledge to be explored. The explored dimensions of customer participation and related attributes need to be tested through hypothesis in a quantitative study so that a theoretical framework could be developed which would further contribute towards the developing theory of value co-creation. The revealed elements of the successful co-creation process should be taken as a starting point for deductive research where, researchers should emphasize scale development and measurement of the value co-creation process. This is worth mentioning that co-destruction may also be caused by the facilitators (ICT firms). Hence, there is a need to know how HEIs or other service industries can avoid co-destruction of value caused by vendor (ICT) firms.

Furthermore, in order to contribute more to the developing theory of co-creation, there is also a need for empirical studies in different contexts globally. The practice of the same phenomenon may be occurring differently in the academic sector of other countries and diverse cultures as the findings may vary depending upon societal norms in a different community. Moreover, other sectors should also be considered in future research including health care, hospitality management, tourism, the fast-

food sector, sales organizations, and the agricultural sector. These sectors are also attempting for technology innovation at a high pace where, this study can act as a point of reference to incorporate value co-creation while minimizing the degree of co-destruction.

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