EMPIRICAL STUDY ON STRATEGIC APPLICATION OF CO-CREATION PROCESS: A CONCEPTUAL FRAMEWORK TO EFFECTIVELY COLLABORATE WITH CUSTOMERS

Akhter Javaid & Shrivastava Priyanka
Department of Business Administration, Aligarh Muslim University, Office of the Secretary, University Games Committee, Aligarh - 202002, India,

ABSTRACT
Co-creation occurs when companies collaborate with customers to understand their needs and expectations, thus creating an enhanced customer experience and generating more value for the customers. The paper provides a framework to understand the role of demographic variables in the co-creation process and the influence of co-creation on purchase decision making process, customer satisfaction level and brand loyalty. This paper first explores the relationship between demographic variable of customers and their interest towards collaborating with companies in the co-creation process. The second part establishes relationship between co-creation of a product, its influence on purchase decision making and increasing satisfaction and loyalty among customers. Also, the paper further establishes an understanding of the benefits that are a result of the co-creation process adopted by the company. For adopting the co-creation process, companies need to have a paradigm shift from their company-centric view of marketing to customer-centric view of marketing. The change is extremely demanding and companies have to transform their approach, structure and environment to engage customers in the co-creation process. This paper underlines the importance of taking demographic variables of the customer like age, gender, educational background, residing area, occupation and income into account for engaging them in the co-creation process.

KEYWORDS: Demographic variables, Purchase decision making, Satisfaction, Loyalty

INTRODUCTION
Today customers are becoming more informed and demanding which is leading to intense competition among companies to retain existing customers and gain new customers. In today’s competitive era, marketing is no longer a one way process, it is two way process where companies and customers are collaborating and interacting in the complete value creation process. Marketers very well know that “customers may forget what they said but they can never forget how marketers make them feel”. Successful brand marketers understand it very well that the cost of attracting and acquiring new customers is higher relative to the cost of retaining existing ones. They are trying to have personalized connection by engaging customers through innovative ways like social networking sites, you-tube, mails, interactive websites etc. Effective customer engagement has become a mantra of success, where customer involvement is at every step of the path to purchase. This paper discusses one of the important ways of customer engagement, i.e. “co-creation” and its influence on consumer’s decision making process. This means customers are the co-creators of value that they extract out of products and services, and this facilitates the purchase decision making process. Companies and customers share joint role of shaping and co-creating market acceptance for products and services. The evolution of marketing is taking placing is due to development of marketing approaches that are customer-centric (Parasuraman and Grewal 2000). Co-creation generates a unique value which elevates the relationship between the customer and the company. The outcome for a company adopting a co-creation is a unique differential advantage on buying decision process. The aim of this research is to empirically test this concept, by investigating the extent to which customers that experience a co created product derive increasing levels of satisfaction and loyalty. Also, this paper explores whether the demographic variables of the respondents have influence on customer’s preference to engage in co-creation.

Please refer to the framework mentioned in Figure No. 1 overleaf. This illustrates the influence of Demographic Variables on co-creation process and impact of co-creation on purchase decision making which in turn generates satisfaction and loyalty among customers. To authenticate the framework empirical evidences are drawn from market of “Energy Drink”. General consensus drawn from responses is used to test the relationship shown in the framework. The utility oriented model developed offers an understanding on following questions
1) Do demographic variables have an influence on consumers’ involvement in the co-creation process?
2) Does co-creativity has an impact on purchase decision making process?
3) Is there any relationship between co-creation, satisfaction and loyalty
LITERATURE REVIEW
The literature review is divided into three parts: (1) Role of demographic variables in the co-creation process; (2) Understanding the co-creation process; (3) Influence of co-creation process in shaping customer satisfaction.

Role of demographic variables in the co-creation process
According to the study named as ‘Demography and design: Predictors of New product team performance (Deborah Glandstein Ancona & David F. Cladwell, 1992)’ there is definite increase in organizations reliance on teams working on new product development. The literature discusses how the teams working on new product development should be formed and structured. The literature highlights that tenure of employees with the organization, their background; educational qualification etc has a bearing on their impact on the process new product development. The paper discusses the ways in which organizations can work so that demographic diversity of employees brings positive effect on the process new product development. The paper discusses the ways in which organizations can work so that demographic diversity of employees brings positive effect on the process new product development. The paper discusses the ways in which organizations can work so that demographic diversity of employees brings positive effect on the process new product development.

Influencing actual purchase behavior? (3) How do vendor and customer characteristics influence consumers' propensity to engage in transactions on the Internet? The study has both theoretical and practical implications. Also, this study discusses the demographic factors influencing the paradigm shift in consumer behavior with special reference to on-line media. In the process of co-creation, organizations are using on-line communities and digital medium to interact with lead users. Therefore, it is increasingly important to understand the factors that will have an influence on consumer behavior in a changing environmental. In the work ‘Co-opting customer competence (C.K. Prahalad and Venkat Ramaswamy, 2000)’ it is mentioned that one of the major challenges that encountered by companies while adopting the co-creation process is managing the diversity of customers. The paper states that when co-creation process uses technology it is seen that younger customers are more responsive than older ones.

Understanding the co-creation process
Co-creation is one of the new ways of customer engagement, which is in line with customer-centric approach being practiced in today’s market. In the co-creation process the customer is actively involved in collaborating with companies in the design, delivery, and creation of the customer experience (Sheth, Sisodia, and Sharma, 2000). The literature suggests that the co-creation is a paradigm change which shifts the focus from traditional way of marketing to a more customer centric approach. In the literature ‘Co-opting customer competence (C.K. Prahalad and Venkat Ramaswamy, 2000)’ it is clearly mentioned that companies must now incorporate customer experience management in their business models. Also, the paper discusses the evolution and transformation customers. Today customers have become more active participants from passive participants in the end to end marketing process. They are more informed and interested in exchanging their views on products, features and marketing methodology that makes.
them a source of competence. Emerging reality is forcing
re-examination of traditional system of company-centric
value creation that served us so well for over 100 years
(C.K. Prahalad and Venkat Ramaswamy, 2004). The study
proposes co-creating a unique value with customers by
remaining connected with them. This study proposes
DART model for co-creation of value. DART stands for
Dialogue, Access, Risk assessment and transparency
which are the basic building blocks while adopting the co-
creation process that engages customers as collaborators.

In the McKinsey quarterly review (July, 2011), in the
article ‘How we see it: three senior executives on the
future of marketing’ it is mentioned that this is an era of
customer engagement and there is no short cut to success
in customer engagement process. It is a hit and trial
method where you collaborate with customers by listening
to them and keep changing strategies of customer
eengagement according to their feedback. Virgin Atlantic
Airways CEO Steve Ridgway mentioned about how his
company has been pushing the boundaries of collaborating
with customers, while experiencing the pleasant surprise
of a successful mass-media campaign. American Express
CMO John Hayes discusses some of the organizational
steps he has taken to create an environment of co-creation
to get ahead of competitors. Duncan Watts, principal
research scientist of the Human Social Dynamics group at
Yahoo! Research, explains how today’s data-rich
environment exposes the limits of intuition in marketing
and the need to take a scientific approach to understand
consumers. The report mentions that co-creation requires
not only creating strategies but an organization structure to
support it. The touch points through which customers can
reach companies increases, which require other
organizational functions to be in place like recruiting new
employees, training employees, retooling customer care
operations, improving on-line interface infrastructure etc.
Organization as a whole should be ready to adopt this new
revolution in marketing which is called “co-creation”.

Influence of co-creation process in shaping customer
satisfaction
In the literature ‘Relationship Glue: Customers and
Marketers Co-Creating a Purchase Experience (Edwin
Rajah, Roger Marshall & Inwoo Nam)’ it is discussed that
Co-creation occurs when a customer and a marketer work
together to create value and a consumption experience that
drives the purchase process. Although other authors have
proposed this idea, this research reports the first empirical
study linking co-creation, trust, satisfaction, relationship
strength, attitudinal loyalty and behavioral loyalty. The
research instrument exposes respondents to scenarios that
differ in the extent of co-creation while retaining exactly
the same eventual purchase outcomes; the research
variables (Co-creation, Trust, Satisfaction, Relationship
Strength and Loyalty) are then measured. A structural
equation model shows that there exist positive
hypothesized relationships, where co-creation definitely
has an impact on relationship strength through increasing
levels of satisfaction and trust. Consumer marketing is
becoming increasingly competitive these days and
companies are striving to find out strategies that will give
them sustainable competitive advantage. As an initiative
tohave an edge over competitors, companies have started
adopting co-creation process without knowing the benefits
that they can reap out of it. The paper is based on an
empirical study quantifying and predicting the benefits
that are consequences of the co-creation process.
As we move rapidly to a co-creation experience as the
basis of value, the fundamental interaction between the
company and the consumer changes in character and
importance (Co-experiences: The next practice in value
creation, C.K. Prahalad and Venkat Ramaswamy, 2004).
In this paper they have discussed, the interaction becomes
the locus of value creation. Interaction can be anywhere in
the system, not just limited to traditional place of
exchange which is point of sale or customer service. In the
traditional firm-centric view of marketing, interaction
takes place where the firm markets its offerings in
exchange of its economic value from the consumer and the
value is created by the firm through its value chain. On
the other hand when firms co-create, the whole process
becomes customer-centric, customer participates actively
in value creation process and designs value that customers
wants out of the offering. Customer at the end is not only
satisfied by the value he gets out of the product but a
greater satisfaction from the whole experience of
interacting with company.
In the paper ‘The Process of Customer
Engagement: A conceptual framework (Jana Lay-Hwa
Bowden,2009)” traditional measures of customer
satisfaction have been discussed, which fail to capture the
depth of customer responses to service performance. This
study redirects satisfaction research towards an approach
which provides an understanding on the role of
commitment, involvement, and trusts leading to more
engaged and loyal customers. A conceptual framework is
proposed in this paper for segmenting customer–brand
relationships based on the extent to which customers are
either new or repeat purchasers. The study/ provides a
deeper and more complete understanding of the nature of
customer–brand relationship and the processes by which
engagement may be developed and fostered among
different customer segments. Two of the most
fundamental constructs of marketing theory, which are
customer satisfaction and service quality, are discussed in
details with respect to customer engagement. This paper
also establishes the relationship between two mentioned
constructs and service performance.

METHODOLOGY
The paper is divided into two parts, the first parts studies
the influence of demographic variables on the co-creation
process. The second part establishes relationship between
co-creation of a product, its influence on purchase decision
making and increasing satisfaction and loyalty among
customers.

The methodology used in the first part of the study is
explained below
This part of the study is mainly based on primary data.
Data have been collected using a questionnaire and getting
it filled by people visiting shopping malls in Bangalore,
Karnataka. The questionnaire was circulated among 200
customers visiting shopping malls. The selection of
shopping malls and selection of sample of respondents
was done using convenient sampling method. The study area is limited to Bangalore, Karnataka as it is one of the fastest growing cosmopolitan city in India. Data was collected at a shopping mall to include people from different background. The duration of the study was two months. Analysis in this part of the study was done using cross tabulation(two way analysis), T-test, ANOVA and Chi-square analysis.

Hypothesis framed for the first part of the study are mentioned below:

H1: There is no significant relationship between age group of the respondents and their interest in collaborating with companies to co-create a new product.

H2: There is no significant relationship between gender of the respondents and their interest in collaborating with companies to co-create a new product.

H3: There is no significant relationship between educational background of the respondents and their interest in collaborating with companies to co-create a new product.

H4: There is no significant relationship between residing area (urban/rural) of the respondents and their interest in collaborating with companies to co-create a new product.

H5: There is no significant relationship between occupation of the respondents and their interest in collaborating with companies to co-create a new product.

H6: There is no significant relationship between income of the respondents and their interest in collaborating with companies to co-create a new product.

The methodology used in the second part of the study is explained below

Experimental research with “One-group Pretest-Posttest Design” was carried as part of the study in this paper. The feedback was collected about a new Holiday Package targeting people in the age group between 20 to 35 years by using a detailed questionnaire on a 7 point scale(from low=1 to high=7). A sample size of 25 respondents was selected from “Total Shopping mall” in Bangalore, Karnataka using convenient sampling method.

Focus group discussion with 15 respondents belonging to the mentioned age group was used to co-create the package. In the chosen experimental design questionnaire was used to measure each respondents purchase decision making process, their satisfaction levels and loyalty. Feedback was taken on mentioned dimensions customers about a Holiday Package created by company alone and feedback was taken again from same customers about a Holiday Package which company co-created along with customers. “Wilcoxon matched-pairs signed-ranks test” was used to measure difference in opinion of consumers about non co-created product and co-created product.

Hypothesis framed for the second part of the study are mentioned below:

H7: Co-creation process has no influence on consumer purchase decision making process

H8: Satisfaction is not an increasing function of a co-created product

H9: Brand loyalty is not an increasing function of satisfaction of a co-created product

RESULTS & DISCUSSION

Results & Discussion of the first part of the study

Customers’ interest towards co-creation process was measured using questionnaire having close ended questions related to their demographic details (Please refer Appendix 1 for questionnaire). The respondents were classified as highly interested, moderately interested and low interested based on overall score of their opinion using (+ -) 0.5 (SD).

Testing Hypothesis H1: There is no significant relationship between age group of the respondents and their interest in collaborating with companies to co-create a new product.

Table 1: Cross Tabulation of Age of respondents and Respondents Perception towards co-creation

<table>
<thead>
<tr>
<th>Age</th>
<th>Low</th>
<th>Moderate</th>
<th>High</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>No. %</td>
<td>No. %</td>
<td>No. %</td>
</tr>
<tr>
<td>20 to 35 yrs</td>
<td>7</td>
<td>10%</td>
<td>19</td>
<td>25</td>
</tr>
<tr>
<td>35 to 50 yrs</td>
<td>15</td>
<td>20%</td>
<td>38</td>
<td>50</td>
</tr>
<tr>
<td>Above50 yrs</td>
<td>27</td>
<td>55%</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>49</td>
<td>24.5%</td>
<td>72</td>
<td>36</td>
</tr>
</tbody>
</table>

Table 2: ANOVA Table

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df (n-1)</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1232.480</td>
<td>3</td>
<td>410.75</td>
<td>8.44</td>
</tr>
<tr>
<td>Within Groups</td>
<td>9999.520</td>
<td>196</td>
<td>50.87</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>11232.000</td>
<td>199</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1 & Table 2 show the relationship between age and customers’ interest in the co-creation process at 5% level of significance. Table 1 shows that majority of respondents who are in the age group of 20-35 yrs (65%) are highly interested in involving with companies for the co-creation process. Majority of respondents who are in the age group of 35 to 50 years (50%) are moderately interested in the co-creation process, majority of...
respondents who are in the age group of above 50 years (55%) are having low interest in the co-creation process. Table 2 shows that at 5% significance level with the value of .000, there is significant relationship between age of respondent and their interest towards collaborating with companies on the co-creation process. Hence hypothesis H1 is rejected. Testing Hypothesis H2: There is no significant relationship between gender of the respondents and their interest in collaborating with companies to co-create a new product.

Table 3: Cross Tabulation of Gender of respondents and Respondents Perception towards co-creation

<table>
<thead>
<tr>
<th>Gender</th>
<th>Low</th>
<th>Moderate</th>
<th>High</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>15</td>
<td>20</td>
<td>30</td>
<td>152</td>
</tr>
<tr>
<td>Female</td>
<td>10</td>
<td>20</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>27.5</td>
<td>50</td>
<td>200</td>
</tr>
</tbody>
</table>

Table 4: Independent samples test

<table>
<thead>
<tr>
<th>T</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-2.8360</td>
<td>198</td>
<td>.007</td>
</tr>
</tbody>
</table>

Table 3 & Table 4 show the relationship between gender and customers’ interest in the co-creation process at 5% level of significance. Majority of male respondents (60%) are highly interested in the co-creation process and majority of female respondents (50%) are moderately interested in the co-creation process. Table 4 shows that there is significant relationship between gender of the respondents and their interest towards collaborating with companies on the co-creation process. Hence hypothesis H2 is rejected.

Testing Hypothesis H3: There is no significant relationship between educational background of the respondents and their interest in collaborating with companies to co-create a new product.

Table 5: Cross Tabulation of Educational qualification of respondents and respondents Perception towards co-creation

<table>
<thead>
<tr>
<th>Educational Qualification</th>
<th>Low</th>
<th>Moderate</th>
<th>High</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Level</td>
<td>6</td>
<td>15</td>
<td>25</td>
<td>41</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>25</td>
<td>30</td>
<td>35</td>
<td>87</td>
</tr>
<tr>
<td>Postgraduate</td>
<td>22</td>
<td>30</td>
<td>55</td>
<td>72</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>26.5</td>
<td>40</td>
<td>200</td>
</tr>
</tbody>
</table>

Table 6: ANOVA Table

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df (n-1)</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>634.160</td>
<td>2</td>
<td>162.530</td>
<td>.016</td>
</tr>
<tr>
<td>Within Groups</td>
<td>10597.840</td>
<td>197</td>
<td>58.143</td>
<td>.998</td>
</tr>
<tr>
<td>Total</td>
<td>11232.000</td>
<td>199</td>
<td>3.224</td>
<td>.016</td>
</tr>
</tbody>
</table>

Table 5 & Table 6 show the relationship between the educational qualification and customers’ interest in the co-creation process at 5% level of significance. Majority of respondents (60%) who have school level education are highly interested in the co-creation process. Majority of respondents having undergraduate level of education have both highly (35%) as well as moderately interested (35%) in the co-creation process. Majority of respondents having postgraduate level of education are moderately (55%) interested in the co-creation process. Table 6 states that at 5% level of significance and with value equal to .016 there exists significant relationship between educational background of the respondents and their perception towards collaborating with companies on the co-creation process. Hence hypothesis H3 is rejected.

Testing Hypothesis H4: There is no significant relationship between residing area (urban/rural) and their interest in collaborating with companies to co-create a new product.

Table 7: Cross Tabulation of residing area (urban/rural) of respondents and respondents Perception towards co-creation

<table>
<thead>
<tr>
<th>Residing area</th>
<th>Low</th>
<th>Moderate</th>
<th>High</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>15</td>
<td>35</td>
<td>46</td>
<td>160</td>
</tr>
<tr>
<td>Rural</td>
<td>10</td>
<td>40</td>
<td>24</td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>27.5</td>
<td>70</td>
<td>200</td>
</tr>
</tbody>
</table>

Table 8: Independent Sample Test

<table>
<thead>
<tr>
<th>T</th>
<th>Df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>.0098989</td>
<td>198</td>
<td>.998</td>
</tr>
</tbody>
</table>
Strategic application of Co-creation

Table 7 & table 8 show the relationship between the residential area and customers’ interest in the co-creation process at 5% level of significance. Majority of respondents who reside in urban area (40%) are highly interested in the co-creation process and majority of respondents who reside in rural area (40%) have low as well high interest in the co-creation process. Table 8 states that at 5% level of significance with value of .992, there is no significant relationship between residing area of respondents and their perception towards the co-creation process. Hence, hypothesis H4 is accepted.

Testing Hypothesis H5: There is no significant relationship between occupation of the respondents and their interest in collaborating with companies to co-create a new product.

Table 9: Cross Tabulation of occupation of respondents and their perception towards co-creation

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Low</th>
<th>Moderate</th>
<th>High</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Students</td>
<td>9</td>
<td>35</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>Professional</td>
<td>18</td>
<td>50</td>
<td>12</td>
<td>35</td>
</tr>
<tr>
<td>Govt. employee</td>
<td>12</td>
<td>30</td>
<td>15</td>
<td>35</td>
</tr>
<tr>
<td>Private employee</td>
<td>14</td>
<td>30</td>
<td>12</td>
<td>25</td>
</tr>
<tr>
<td>Business</td>
<td>12</td>
<td>25</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>65</td>
<td>64</td>
<td>71</td>
<td>84</td>
</tr>
</tbody>
</table>

Table 10: ANOVA Table

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df (n-1)</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>914.417</td>
<td>4</td>
<td>253.604</td>
<td>4.42</td>
<td>.002</td>
</tr>
<tr>
<td>Within Groups</td>
<td>10317.583</td>
<td>195</td>
<td>50.808</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>11232.000</td>
<td>199</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 9 & table 10 show the relationship between the occupation and customers’ interest in the co-creation process at 5% level of significance. Majority of business people (45%) and private employees (45%) are highly interested in the process of co-creation. Majority of Government people (35%) have both moderate as well as high interest in the co-creation process. Majority of professionals (50%) have low interest in the co-creation process and majority of students (40%) have moderate interest in the co-creation process. Table 10 states that at 5% level of significance with value of .002, there is significant relationship between occupation of respondents and their perception towards the co-creation process. Hence, hypothesis H5 is rejected.

Testing Hypothesis H6: There is no significant relationship between income of the respondents and their interest in collaborating with companies to co-create a new product.

Table 11: Cross Tabulation of income of respondents and respondents Perception towards co-creation

<table>
<thead>
<tr>
<th>Income</th>
<th>Low</th>
<th>Moderate</th>
<th>High</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>&lt; 10,000</td>
<td>14</td>
<td>55</td>
<td>6</td>
<td>25</td>
</tr>
<tr>
<td>10,000-25,000</td>
<td>18</td>
<td>25</td>
<td>38</td>
<td>50</td>
</tr>
<tr>
<td>25,000-40,000</td>
<td>15</td>
<td>25</td>
<td>23</td>
<td>40</td>
</tr>
<tr>
<td>40,000-55,000</td>
<td>9</td>
<td>35</td>
<td>7</td>
<td>25</td>
</tr>
<tr>
<td>&gt;55,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>56</td>
<td>28</td>
<td>74</td>
<td>37</td>
</tr>
</tbody>
</table>

Table 12: ANOVA Table

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df (n-1)</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>851.833</td>
<td>4</td>
<td>220.604</td>
<td>3.890</td>
<td>.004</td>
</tr>
<tr>
<td>Within Groups</td>
<td>10400.167</td>
<td>195</td>
<td>51.808</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>11232.000</td>
<td>199</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 11 & Table 12 show the relationship between the occupation and customers’ interest in the co-creation process at 5% level of significance. Majority of people earning less than Rs.10,000 (55%) are less interested in the co-creation process. Majority of Government people (35%) have both moderate as well as high interest in the co-creation process. Majority of professionals (50%) have low interest in the co-creation process and majority of students (40%) have moderate interest in the co-creation process. Table 12 states that at 5% level of significance with value of .004, there is significant relationship between income of respondents and their perception towards the co-creation process. Hence, hypothesis H6 is rejected.
Results and Discussion of the second part of the study

Customers’ perception about the ease of purchase of a product, satisfaction levels and loyalty is measured by collecting responses on 15 statements (5 statements related to each of the three mentioned dimensions) with seven point likert scale such as strongly disagree-1 and strongly agree-7 (Please refer to Appendix 2 for details on questionnaire). Focus group discussion was used to co-create a new Holiday Package. Respondent’s average value of response on the five statements for each dimension was taken as final value for each of three mentioned dimensions. Customers’ response was taken about the non co-created and on co-created Holiday Package. Wilcoxon matched-pairs signed-ranks test was performed on these responses given by sample of 25 respondents at the .05 level of significance.

Testing hypothesis H7: Co-creation process has no influence on consumer purchase decision making process

Table 13: Wilcoxon matched-pairs signed-ranks test result of purchase decision making process before and after co-creation process

<table>
<thead>
<tr>
<th>Tp</th>
<th>Tn</th>
<th>T</th>
<th>T critical value</th>
</tr>
</thead>
<tbody>
<tr>
<td>460</td>
<td>4</td>
<td>4</td>
<td>90</td>
</tr>
</tbody>
</table>

Table 13 shows that value of T is lesser than critical T-value at .05 level of significance, so hypothesis H7 is rejected

Testing hypothesis H8: Satisfaction is not an increasing function of usage of a co-created product

Table 14: Wilcoxon matched-pairs signed-ranks test of satisfaction levels before and after co-creation process

<table>
<thead>
<tr>
<th>Tp</th>
<th>Tn</th>
<th>T</th>
<th>T critical value</th>
</tr>
</thead>
<tbody>
<tr>
<td>417</td>
<td>29</td>
<td>29</td>
<td>90</td>
</tr>
</tbody>
</table>

Table 14 shows that value of T is lesser than critical T-value at .05 level of significance, so H8 hypothesis is rejected

Testing hypothesis H9: Brand loyalty is not an increasing function of satisfaction by usage of a co-created product

Table 15: Wilcoxon matched-pairs signed-ranks test of brand loyalty before and after co-creation process

<table>
<thead>
<tr>
<th>Tp</th>
<th>Tn</th>
<th>T</th>
<th>T critical value</th>
</tr>
</thead>
<tbody>
<tr>
<td>395</td>
<td>45</td>
<td>45</td>
<td>90</td>
</tr>
</tbody>
</table>

Table 15 shows that value of T is lesser than critical T-value at .05 level of significance, so hypothesis H9 is rejected

CONCLUSION

Customers are guided by both rational and emotional responses towards involvement in co-creation process. Understanding customers’ perception is very important for companies, since they have started adopting co-creation process but are not sure about the target segment which will be interested in collaborating with them. The first part of the study focused on understanding the influence of demographic variables on consumers’ perception about the co-creation process. The demographic variables studied were age, gender, educational background, residing area, occupation and income. The study showed that age, gender, educational background, income and occupation of respondents have a significant relationship with their interest in collaborating with companies to co-create a new product. Also the study showed, there is no significant relationship between residing area (urban/rural) of the respondents and their interest in collaborating with companies to co-create a new product. This paper underlines the importance of taking demographic profile of the customers into account for engaging them in the co-creation process. This would lead to stronger and mutually beneficial engagement between customers and the company.

This paper has both theoretical and practical implications. Although organizations have already started investing in co-creation process they are not sure about the benefits they can reap out of it. To create an understanding about the benefits of the co-creation process, the study proposes a framework mentioned in Figure No. 1. Through the framework, this paper establishes and empirically tests the relationship between co-creation process, purchase decision making, satisfaction levels and brand loyalty. The data analysis validates that co-creation process makes the purchase decision making easier for consumers, which leads to greater satisfaction levels and increased brand loyalty. However, the sample size in the second part of the study is only 25 and future studies can focus on larger sample size. Influence of only six demographic variables on co-creation process was studied in this paper due to time constraint. Future studies can focus on studying influence of many other demographic variables on the co-creation process.

REFERENCES


---

**APPENDIX**

**APPENDIX No. 1:**

*Questionnaire used for the first part of the study*

In the backdrop of companies taking initiative to co-create new offerings by collaborating with customers this questionnaire is used to take your feedback for future opportunities that companies can explore in co-creation

Q. What is your Gender?
   - Male
   - Female

Q. What is your residence area?
   - Urban
   - Rural

Q. In which year were you born?

Q. What is the highest degree or level of school you have completed? If currently enrolled, mark the previous grade or highest degree received.
   - School level
   - Undergraduate
   - Post-graduate

Q. Please describe your work.
   - Student
   - Professional
   - Government employee
   - Private employee
   - Business man

Q. What is your total household income?
   - Less than Rs. 10,000
   - Rs. 10,000 to Rs.25,000
   - Rs. 25,000 to Rs. 40,000
   - Rs. 40,000 to Rs. 55,000
   - Greater than Rs. 55,000

Q. Will you be interested in interacting with company to create a new product?
   - Yes
   - No
**APPENDIX 2: Questionnaire used for the second part of the study**

Please indicate the extent, to which you agree or disagree to the following statements by writing an appropriate number in the box opposite each statement, where:

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

1 I would highly recommend this new product to my friends............
2 In my relationship with company, I counted it to do what is right........
3 It is risky to change this product as it may not be as good ........
4 The probability that I will use this product again in future is very high........
5 Overall, I am pleased with the value I got out of this product .............
6 My relationship with this specific company is very strong..................
7 As long as the present service continues, I doubt that I would switch from this product......
8 The product meets my expectations..................
9 My relationship with this company is very important to me............... 
10 In the future I intend to use more of the products offered by this company......
11 I think I did the right thing when I took up the products provided by this company.................................................................
12 I intend to continue using this product over some time.....................
13 If I had to do it over again, I would still engage with this company........
14 I would lose a comfortable relationship with my current service provider if I change to another company..........................................................
15 The company really went out of its way to work with the customer........

**Symbols:**

- % - Percentage
- df - Degree of freedom
- T - t-distribution value