

Examining the Antecedents and Outcome of Co-Creation: A Hospitality Industry Perspective

Vivek Sharma 

Department of Lifelong Learning, University of Jammu, Jammu, India, Email:
drviveksharma@jammuuniversity.ac.in

Dada Ab Rouf Bhat* 

Higher Education Department, Jammu and Kashmir, India, E-mail:
dbhat@jammuuniversity.ac.in

Ajay Kumar Chalotra 

Department of Commerce, Cluster University of Jammu, Email, akajay002@gmail.com

Bhanu Priya 

Department of Commerce, Higher Education Department, Email,
profbhanupriya4@gmail.com

**Corresponding Author*

How to cite this article: Sharma, V., Bhat, D.A.R., Chalotra, A.K. & Priya, B. (2023). Examining the Antecedents and Outcome of Co-Creation: A Hospitality Industry Perspective. African Journal of Hospitality, Tourism and Leisure, 12(4):1480-1494. DOI: <https://doi.org/10.46222/ajhtl.19770720.444>

Abstract

In this era of development and challenging rivalry, co-creation has become vital for service organisations to sustain the competition. A broad outline of contemporary insights into the co-creation of services is essential. The point of this study is to detect the antecedents of co-creation and outcomes in the form of competitive advantage in the context of the hospitality industry. Data were generated from 461 managers and frontline staff of the A-category hotels sited in varied areas of Jammu and Kashmir via purposive sampling technique. Structured Equation Modelling was used to check the hypotheses. The outcomes reveal that co-creation is considerably influenced by technology adoption, active involvement and environmental change which in turn influence the competitive advantage. The findings offer helpful managerial implications and consequences in the context of the hotel business.

Keywords: Co-creation; innovation; competitive advantage; hospitality; tourism

Introduction

To make possible the success of any marketing strategy one of the core elements is to deliver an exceptional service experience to customers (Abdullah et al., 2022; Prebensen et al., 2016). From the tourism perspective, the experience of guests is seen as an individual perception generated in the context of interactions and resource integration (Bjork & Sfantla, 2009). Customers are becoming more motivated and in charge, so service providers must engage with them more enthusiastically (Bhat & Sharma, 2021). Prahalad and Ramaswamy (2004) suggest that co-creating interactions are a foundation for worth and the prospect of novelty (Sharma & Bhat, 2020). Evidence provided by such lines suggests that enhanced and superior service offerings and experience can only be created if both the guest and the provider of services work willingly and cooperatively. People engage with service providers to build their individual exclusive experiences, which are referred to as the co-creation of experiences. For instance, the Dutch Fletcher Hotel in the Netherlands conducts online surveys to obtain feedback from clients to gain consumer insights and alternatives. The results of these studies are therefore

analysed and used by the organisation to make adjustments to better meet the needs and ideas of guests. It is a very essential element in the hospitality and tourism industry that the service providers should create an excellent practice for the clients by producing co-creation of experiences. However, hotels learned what their customers desire and how they might make their entire stay more involved and useful for them, boosting their engagement in co-creation and as a result enhance overall satisfaction (Shaw et al., 2011). This scenario adds to the literature by recommending that hotels undertake co-creation of experiences with consumers to provide worth for all parties involved (depending on who is involved) (Mathis et al., 2016). The aim is for the last service to be extra valuable following the stakeholder's decision to contribute their ideas and personal capital (Mathis et al., 2016).

In recent years, value co-creation has proved to be a vital strength of many business concerns to stay and gain competitiveness (Sharma & Bhat, 2020a). The expression 'active involvement' of customers is gaining amassed popularity through standard as well as theoretical marketing writings. An extensive review of the literature reveals that the literature on co-creation (Brodie et al., 2011; Diaz et al., 2016; Im & Qu, 2017; Kasnakoglu, 2016; Mainardes et al., 2017; Ranjan & Read, 2016) is theoretical, brief, and fragmented in developed economies, such as Europe, the United Kingdom, Spain, China, and the United States, and it covers various service sectors. Moreover, the bulk of studies on tourism have included value co-creation scales from other disciplines (Grissemann & StokburgerSauer, 2012; Hsiao et al., 2015; Sugathan & Ranjan, 2019). Others have measured co-creation experience without considering the impact of antecedents (e.g., Grissemann & StokburgerSauer, 2012; Prebensen et al., 2016). To improve the validity and trustworthiness of co-creation dimensions relating to tourism and hospitality, academics have recommended in-depth scale development activities (Prebensen & Xie, 2017). Buoincontri et al. (2017) have also suggested the need to examine the role of technologies in co-creation with a particular emphasis on smart technologies to enhance co-creation with tourists. Oertzen et al. (2017) also advocated evaluating the contribution of value co-creation and its close contributors like participation and involvement. Although co-creation and service innovation have continued to experience exponential progress since their inception, many researchers (Payne et al., 2008; Silva et al., 2013) emphasized the need to develop models of innovation in co-creation. Very limited research focusing on co-creation, dynamics of co-creation, factors influencing co-creation, and its impact has been found in the literature. From the literature, it has been found that there is a need to examine the impact of co-creation on business firms. Further, it has been checked from the customer perspective, future studies need to measure it from the managerial perspective (Kyei & Bayoh, 2017). Additionally, as significant innovation-related elements have been acknowledged in recent years, the significance of innovation management in the hospitality and tourist sectors has increased (Hjalager, 2010). To determine how the hospitality sector may foster more ground-breaking service offerings, it is possible to further analyse the impact of cooperation and co-creation between a business and its clients on service innovation. These efforts are justifiable (Durst et al., 2015) given the rising importance of the service sector and its effect on economic growth (Maroto-Sánchez, 2012; Mention, 2011). As a result, there is an increasing need to expand and empirically investigate a comprehensive framework on business-to-customer co-creation to provide an enhanced understanding of how businesses in the hospitality sector co-create value with their consumers.

Literature review

Co-creation-enabled innovation plays a vital role in the hospitality industry. In many geographical locations, research studies on the hospitality industry have established that co-creation has a favourable influence on success and sustainability (Bhat & Sharma, 2021;

Damanpour et al., 2009; Durst et al., 2015; Sharma & Bhat, 2020; Zhou et al., 2005). The present study focuses on co-creation, its antecedents and outcomes in the hospitality sector of Jammu and Kashmir. The rationale for focussing on this area is the dependence of the J&K economy on tourism where hotels play a vital part in providing accommodation to visitors visiting the Jammu and Kashmir region.

Environmental uncertainty

Organizations face extremely dynamic conditions that are frequently marked by constant shifts and dynamism (Alsharo & Gregg, 2012). Service managers face an extremely competitive, complicated and unpredictable decision-making climate. This increasingly complicated environment needs several different resources (Boehlje, 1999). Rapid technical progress, the proliferation of knowledge and the disparity between developing and underdeveloped countries all add to today's dynamic environment (Daellenbach, 1994; Fisher et al., 2000). The evolving essence of user exchanges raises confusion in increasingly volatile decision-making. In addition, the complexities of the economy arise from many factors operating concurrently, including government policy, enterprise scale, business rivals, technology and market risks (Aldrich, 2008). Environmental dynamics is confirmed to have a direct effect on the skills and abilities of an enterprise (Jansen et al., 2009). Several studies have confirmed the moderate effect on company performance of environmental dynamics, such as organisational education (Chen & Wang, 2012), the capacity to organize, coordinate and integrate resources (Liu & Liu, 2013), external research and integration of knowledge (Dong, 2017) and innovation externalisation (Bei et al., 2010). When a company is in a highly evolving world, the condition is often highly unpredictable, with several non-structural issues (Galbraith, 1973). The capacity of a start-up to obtain, incorporate and generate value also depends on the environmental dynamics (Baum & Wally, 2003). Sensible increments in the environmental dynamics may also bring uncertainty, which makes start-ups incapable of improved identification and understanding of the interaction between environmental variables and capital and which impacts companies in selecting adaptive tools to generate profit (Sirmon et al., 2007). The capacity of companies to incorporate and operate capital may be undermined in a highly evolving world, thereby weakening the benefits of value creation (Ge et al., 2019).

Active involvement

Active involvement of customers is the scope of the customer's physical, emotional and rational manifestations, including loyalty, vigour, connection and absorption (Patterson et al., 2006). It leads to superior affiliations and strong partnerships due to continued dialogue, resulting in important, valuable results for customers and organisations (Auh et al., 2007; Prahalad & Ramaswamy, 2004). Moreover, customer participation also perceived to be part of the co-creation process (Dong et al., 2008) leads to new product and service solutions that are better adapted for and address emerging demands as well as help reduce the cost of design, production and marketing (Ramaswamy & Guillard, 2010).

Technology adoption

To increase the reliability and efficacy of different work systems, organizations implement modern technology (Bangare et al., 2021). Technology allows retailers to know their customers' points of view, requirements and experiences in line with their ongoing commitment through dialog in B2C dealings (Ballantyne & Varey, 2006). Moreover, technology not only helps to co-create value but also plays an essential part in value co-creation. It also allows consumers and retailers to create and convert value based on acceptance, incorporation and reliance (Chuang & Lin, 2015). Technology competencies such as online transactions between

companies and consumers have become a background to the value development phase in B2C (Pena et al., 2014) and have been presented as drivers for co-creation (Payne et al., 2008). The future effect of technology on the mechanism of co-creation has long been acknowledged (Wikström, 1996). Co-creation may happen offline with pen and paper, but the usage of ICT increases the number of clients and the rate of co-creation outcomes (Piller et al., 2012). There are different tools available for users to chat, interact, design and customize their desires, wishes, proposals and solutions (Antioco et al., 2008; Lekgau & Tichaawa, 2022). The tools may have different types from a plain mailing list to advanced tools for customization (Nambisan, 2002; Pacauskas, 2016).

Competitive advantage

In order to continue in prevailing market conditions, companies need to enhance their innovation skills to meet new needs and consumer desires to provide a long-term strategic edge (Panayides, 2006). A look at current developments in pioneering concerns shows that creativity is essential to long-term growth, development, sustainability and longevity. If the company imagines being a leader, it is advised that companies continuously innovate their operation to create capacity and achieve sustainability benefits. This is appropriate for the tourist industry where service innovation is essential to achieve and maintain a competitive edge (Camison & Monfort-Mir, 2012; Hjalager, 2010). The competitive edge is achieved when a company may generate a benefit in a commodity or in a method above its manufacturing costs and which existing or future rivals cannot simultaneously enforce (Barney, 1991). It is also a comparative metric since it shows the status of a company concerning its rivals or the market (Barros, 2001; Conto et al., 2016). Prajogo (2006) points out that researchers have been increasingly interested in the need to identify sources of competitive advantage in the service sector-particularly if creativity is seen as a competitive advantage (and its effects on performance) (Ferraz & Santos, 2016).

Hypothesis development

Technological adoption and co-creation

ICT has proven a leading way to attract strategic advantages by the effective use of capital to address problems, through making affiliations with businesses and consumers possible and by developing links with each other (Tippins & Sohi, 2003). Technology paves the way for strong B2C transactions in line with the continuous conversation, allowing merchants to know their consumers' views, needs and experiences (Ballantyne & Varey, 2006). It also plays an important role in value co-creation and inter-business transactions (Della Corte et al., 2009). In addition, technology not only serves to promote the co-creation of value but also depicts a key task in the co-creation of value. It also allows consumers and retailers to create and convert value at the level of acceptance, integration and reliance (Chuang & Lin, 2015). Technology competencies including online transactions between companies and consumers have been viewed as an antecedent of the value co-creation process with a view to B2C (Pena et al., 2014) and as an engine of co-creation (Payne et al., 2008). In tourism, past research has advocated a notable increase in efficiency and competitiveness in ICT implementation (e.g., Andreu et al., 2010). Hence it is hypothesised that:

Hyp1: Technology adoption significantly contributes to co-creation.

Active involvement and co-creation

Involvement is the amount of curiosity in an act and the touching response connected with that interest (Ida, 2017; Manfredi, 1989). Participation in value co-creation helps consumers and end users to place themselves more and more coordinated over the whole lifecycle for innovation, thereby significantly enriching the user-driven innovation opportunity (Seppa & Tanev, 2011). Customers are expected to help create value by processing and by taking over the responsibility of the contributor or designer (O'Hern & Rindfleisch, 2001; Preikschas, et al., 2015; Tapscott & Williams, 2006; Zhang & Chen, 2008). Active interaction makes it possible for consumers to interact and build interconnections with employees and other customers, who are connected in one way or another and provide a motivating sense of contribution to co-creation (Lorenzo-Romero et al., 2014). Whether they are productive or constructive (Lagrosen, 2005), they are psychologically encouraged to develop their thoughts, skills or desires (Martinez-Canas et al., 2016). This is why Patterson et al. (2006) define the active involvement of customers as the scope of the customer's physical, emotional and rational manifestations including loyalty, vigour, connection and absorption. It leads to superior affiliations and strong partnerships due to continued dialogue, resulting in important, valuable results for customers and organisations (Auh et al., 2007; Prahalad & Ramaswamy, 2004). Moreover, customer participation, also perceived to be part of the co-creation process (Dong et al., 2008), leads to new product and service solutions that are better adapted for and address emerging demands as well as help reduce cost of design, production and marketing (Ramaswamy & Gouillart, 2010). Active consumer participation in co-creation entails avoiding risk, economic efficiency (Pralhad & Ramaswamy, 2004) and above all differentiation (Martinez-Canas et al., 2016; Ramaswamy & Gouillart, 2010). This participation can be active in both the physical and virtual environments (Lorenzo-Romero et al., 2021). With the help of their unique experiences, customers have been conceptualised in practice as active rather than passive participants who provide value when building and developing goods and services (Martinez-Canas et al., 2016; Prahalad & Ramaswamy, 2004). Thus, it is hypothesised that:

Hyp2: Active involvement significantly contributes to co-creation

Environmental change and co-creation

Occasional environmental changes such as deviations in customer preferences, wear-down industry restrictions, fluctuations in social values and demographics, the development and execution of changing government directives, as well as technological changes and improvements would force industries to allow co-creation or be ready to face the failure of effective strategic decisions (Damanpour & Gopalakrishnan, 1998; Gössling & Hall, 2006). They want companies to look for a way out in the form of creative ideas that meet the changing dynamics. The increasing uncertainty of the current climate has led companies to seek innovative ways to build and sustain working associations with consumers and suppliers (El-Gohary, 2012). Moreover, to address market climate transition, a systematic roadmap and visualization for new corporate growth tactics were projected (Lee et al., 2012). The company challenges that rapidly identify and prepare for environmental changes automated in creative activity are further motivated by the contribution to co-creation dynamics. That's why we offer the third hypothesis:

Hyp3: Environmental change has a significant impact on co-creation.

Co-creation and competitive advantage

According to numerous studies, organisations can benefit in a variety of ways from consumer participation in value co-creation, including brand magnification, new customer attraction and lessening costs so they can recommend more distinctive products at lower prices (Piligrimiene et al., 2015). It has been shown that the primary driver of competitive advantage in service processes is customer participation in the act of value creation (Yi et al., 2011). Therefore, through sharing, collecting and recombining knowledge, co-creation encourages progress (Brynjolfsson & McAfee, 2014). Additionally, clients as a whole are altering the current commercial center's environment and the direct link between important initiatives and firm success (Lariviere et al., 2017). Whilst a consumer participates, two crucial rivulets become available: one as a resource and the other as a partner or co-creator (Gronroos & Voima, 2013; Ma et al., 2017) which is in certain ways associated with higher organisational performance (Storey & Larbig, 2017; Wang & Kim, 2017). These acts ultimately result in customer satisfaction which is directly related to the performance of the company as a whole. Thus, we hypothesise that:

Hyp4: Co-creation has a significant impact on competitive advantage.

Methods

Research instruments

A five-point Likert scale was employed to evaluate the constructs, with 1 representing severe disagreement and 5 denoting strong agreement. The co-creation materials used in this study were taken from the works by Diaz et al. (2016), Mathis et al. (2016) and Sharma & Bhat (2020a). The items of technology adoption were adopted from the studies of Chuang & Lin (2015), Chen et al. (2017) and Tsou & Chen (2012), while items for active involvement were used from the literature of Ranjan & Reid (2016) and Sauer (2016). Similarly, the items for the construct environmental change were derived from the studies of Chen et al. (2017), Ge et al. (2018) and Rothenberg & Zyglidopoulos (2003). The competitive advantage is measured by the previous works of Sigalas et al. (2013) and Sharma & Bhat (2020). The items were changed to match the tourism industry's requirements.

Data collection

A purposive sampling approach was adopted to contact respondents from A-category hotels for the research. A total of 491 questionnaires were circulated to managers and front-line staff on a convenience basis, out of which 470 were obtained and 9 had missing frequencies indicating a response rate of 94%. The respondents' demographic data demonstrates that 90.2 percent were male and 9.8 percent were female. Among them, 34.5 percent belong to the age category below 30 years, 40.1 percent fall in the age group of 30-50 years, and the rest 25.4 percent above 50 years. Most respondents about 50% have been at their present employer for more than five years. Seven hospitality managers and three academics from the fields of hospitality and marketing pre-tested the questionnaire at an early stage, providing feedback on a variety of factors including item comprehension, language, readability and ambiguity (Hair et al., 2010). The responses explained that the measurement items were well-worded. This helped achieve content validity.



Results and discussion

AMOS was used in a two-phase method of structural equation modeling (SEM), as recommended by Anderson and Gerbing (1988). First, exploratory and confirmatory factor analyses were run to learn more about the concept validity and fit of the suggested measurement model. The second stage then aimed to create and evaluate the structural model to evaluate the validity of the theoretical link.

Exploratory factor analysis (EFA)

EFA with Varimax rotation was run to discover the critical dimensions of environmental uncertainty, technological adoption and competitive advantage. An eigenvalue that is better than one was used to choose the number of factors (Churchill & Iacobucci, 2002). Two factors each for these constructs were identified explaining variance greater than 65% (see Table 1).

Table 1: Results of exploratory factor analysis

Technology Adoption	MV	SD	FL	EV	%TV	%CV	COM
F1 Web based service (KMO = 0.688)							
Ta_5	3.605	1.021	0.974	4.125	43.801	43.801	0.957
Ta_1	3.616	1.014	0.954				0.923
Ta_7	3.629	1.025	0.946				0.907
Ta_3	3.583	1.025	0.842				0.709
F2 E-business adoption							
Ta_6	3.661	0.983	0.947	2.828	43.114	86.915	0.898
Ta_2	3.668	0.976	0.945				0.894
Ta_4	3.572	0.972	0.927				0.875
Ta_8	3.594	0.983	0.873				0.789
Active Involvement (KMO= 0.773)							
Ai_3	3.676	1.053	0.903	3.272	65.442	65.442	.816
Ai_5	3.579	1.111	.870				.756
Ai_6	3.780	1.009	.767				.588
Ai_1	3.676	1.086	.759				.575
Ai_2	3.659	1.064	.732				.535
Environmental Uncertainty (KMO = 0.730)							
F1 Vibrant Competition							
Eu_7	3.793	1.010	0.927	3.543	40.414	40.414	0.872
Eu_5	3.713	1.071	0.817				0.678
Eu_3	3.750	1.028	0.786				0.630
Eu_4	3.733	0.995	0.785				0.637
F2 Changing Customer Taste							
Eu_2	3.739	1.028	0.961	1.979	38.464	78.877	0.950
Eu_6	3.731	1.020	0.938				0.882
Eu_1	3.759	1.055	0.912				0.873
Co-creation (KMO= 0.812)							
Cc_4	3.812	1.134	0.912	2.154	66.158	66.158	.0925
Cc_1	3.452	1.821	0.954				0.845
Cc_3	3.664	1.569	0.572				0.869
Cc_2	3.812	1.562	0.758				0.778
Competitive Advantage (KMO = 0.746)							
F1 Competition Capability							
Ca_2	3.633	1.084	0.926	3.658	45.961	45.961	0.871
Ca_8	3.629	1.083	0.917				0.853
Ca_4	3.648	1.014	0.876				0.791
Ca_3	3.631	1.072	0.838				0.734
F2 Financial Capability							
Ca_1	3.637	1.131	0.928	1.766	31.527	77.488	0.870
Ca_6	3.631	1.126	0.923				0.873
Ca_7	3.622	1.109	0.645				0.533

Confirmatory factor analysis (CFA)

The measurement model's robustness was then tested using a series of confirmatory factor analyses (CFA), which looked at construct reliability, convergent validity and discriminant validity. Each of the five constructs—co-creation, technology adoption, active participation,

environmental uncertainty and competitive advantage—were examined separately using CFA. When reliability was tested, cronbach's alpha and composite reliability values fit well, displaying values above the cutoff of 0.70 (Fornel & Larker 1981; Hair et al., 2010), which authenticates the satisfactory internal consistency and composite reliability of the scale. According to Bucklin and Sengupta (1993), the composite reliability range between 0.71 to 0.88. Since all constructs' AVE values were more than the threshold value of 0.5, it was determined that all measures had sufficient convergent validity. The discriminant validity was next examined using the correlation matrix (Table 2). Given that the square root of the AVE estimations for each variable was all greater than the correlations of all other variables (Fornel & Larker, 1981) (see Table 2), it was established that the discriminant validity in our situation was sufficient.

Table 2: Correlation matrix of constructs (discriminant validity)

	TA	AI	EC	CC	CA
TA	0.698				
AI	0.079**	0.543			
EC	0.046	0.059	0.720		
CC	-0.039	-0.064**	-0.046**	0.688	
CA	0.071	0.072	-0.116	0.110	0.669

Key: TA-Technological Adoption, AI-Active involvement, EC- Environmental change, CC-Co-creation CA-Competitive advantage.
Note: Values on the diagonal axis represent Average variance extracted and values below the diagonal represent correlation values

Hypotheses testing

We proceeded to test the suggested structural model and looked at the hypothesised correlations after validating and achieving satisfactory model fitness for the measurement model. The structural model's findings (Table 3) showed that all of the assumptions were validated since the values were statistically significant ($p < 0.05$ or greater) (Hyp1, Hyp2, Hyp3 & Hyp4 all supported). Overall, the structural model's fitness showed a substantial fit with $\chi^2/df = 2.217$, GFI=0.981, AGFI=0.960, NFI=0.905, TLI=0.900, CFI=0.939 and RMR=0.029 & RMSEA=0.051 meeting the threshold criterion. The outcomes established that technology adoption positively and significantly contributes to co-creation ($\beta = .460$, $p = .000$). Hence hypothesis 1 stands established. This establishes technological adoption as a relevant and effective marketing strategy for enhancing and creating co-creation.

Table 3: Hypothesis results (direct effect)

Parameters	SRW(β)	Hypotheses	Model Fitness	Conclusion
Technology Adoption → Co-creation	0.460*	Hyp ²	$\chi^2/df = 2.110$, GFI=0.978, AGFI=0.959, NFI=0.936, TLI=0.948, CFI=0.965, RMR=0.041, RMSEA=0.049	Accepted
Active Involvement → Co-creation	0.531*	Hyp ³	$\chi^2/df = 1.768$, GFI=0.987, AGFI=0.969, NFI=0.900, TLI=0.931, CFI =0.961, RMR= 0.035, RMSEA=0.041	Accepted
Environmental change → Co-creation	0.671*	Hyp ⁴	$\chi^2/df = 1.825$, GFI=0.981, AGFI=0.964, NFI=0.900, TLI=0.910, CFI=0.939, RMR=0.048, RMSEA=0.042	Accepted
Co-creation → Competitive Advantage	0.794*	Hyp ⁵	$\chi^2/df = 1.422$, GFI=0.986, AGFI=0.974, NFI=0.976, TLI=0.989, CFI=0.993, RMR=0.034, RMSEA=0.030	Accepted
Overall Hypothesized Model	$\chi^2/df = 2.217$, GFI=0.981, AGFI=0.960, NFI=0.905, TLI=0.900, CFI=0.939, RMR=0.029, RMSEA=0.051			

Note: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

The relationship between active involvement and co-creation also came to be noteworthy ($\beta = 0.531$, $p = 0.000$), demonstrating that active involvement is an essential prerequisite for co-

creation which is a profitable strategy for enhancing customer-brand relationships and creating satisfaction, commitment and trust among customers. As a consequence, we agree with hypothesis 2, which claims that active involvement considerably affects co-creation. Moreover, hypothesis 3 also got established representing a positive impact of environmental change on co-creation ($\beta=0.671$, $p=0.000$). It shows that the environmental change concept has the highest degree of cause and demonstrated environmental change as a strong antecedent of collaboration. Likewise, co-creation and competitive advantage were also found to be positively correlated ($\beta=0.794$, $p=0.000$). As a result, hypothesis 4, which identifies co-creation as a vital instrument for competitive advantage, is likewise accepted (see Table 3).

Implications and conclusion

The key point of this research is to observe the factors affecting co-creation and explore the impact of co-creation on the competitive advantage of an organisation. We deem that exploring the combined impact of these co-creation antecedents and its leading to competitive advantage guides to a more satisfactory assessment of the tactical activities taking place in the hospitality industry. Firstly, we look at the impact of technology adoption on co-creation. We observed how technology adoption can be profitable for the hospitality segment to gain the benefit of scheming and put into practice innovations by taking into account the ideas of concerned parties through technology. The results indicated that hotel's use various technological gadgets and applications to predict customer choices and use these technologies to keep a vigil on the latest trends that are seeking entry into the markets to outwit the opponents. The results are consistent with the studies of Ratchford and Barnhart (2012) and Taherdoost (2018).

Secondly, the position of the consumer in the generation of ideas has mostly been acknowledged for incremental innovation (Kokins et al., 2021), while the contribution that customers can add to the idea-generation phase has been believed to be minimal as far as radical innovation is concerned (Lundkvist & Yakhlef, 2004). The capacity of service organisations to develop and manage strong client collaboration processes to achieve a win-win scenario while taking into account the thoughts and expectations of consumers is defined as participation capability in this study. This result is consistent with the views of previous scholars such as Ida (2017) and Martinez-canas et al. (2016) who advocated that active involvement is an essential prerequisite for the co-creation which is a profitable strategy for enhancing customer-brand relationship and creating satisfaction, commitment and trust among customers. Third, we examined the impact of environmental change on co-creation. Customer preferences are changing, industry borders are eroding, social norms and demographics are shifting, new government rules are being introduced and put into effect and technology is advancing (Hoyer et al., 2020). Businesses that can promptly adapt to environmental changes will naturally have a higher propensity for inventive techniques when it comes to co-creation. Environmental uncertainty and technological adoption through increased competition are critical and motivating factors for co-creation initiation.

Finally, According to the study, a company's competitive edge may be increased by effectively incorporating customers in innovation processes from a co-creation perspective. To satisfy a variety of client wants and maintain competitive advantages over rivals, hospitality managers must listen to consumers and build services in accordance with their feelings. We believe that involving competitive advantage in our study creates a more comprehensive picture of the strategic initiatives taken by organisations.

Although this study's findings increase our understanding of the link between the factors we looked at, it also includes limitations that pave the way for more research. First, our study examines co-creation as a one-dimensional construct, future research could study the dimensionality of co-creation for better understanding and results. The study also explored

competitive advantage as an outcome of co-creation. The possibility of co-destruction is also there considering the involvement of customers in service design etc. Therefore it is an issue to be examined. Further, this study is restricted to the hospitality industry only; future research may consider other sectors for generalisation of results.

References

- Abdullah, O., Sufi, T. & Kumar, S. (2022). Service Quality and its Influence on Customer Satisfaction and Customer Loyalty in the Restaurants of Five-Star Hotels. *African Journal of Hospitality, Tourism and Leisure*, 11(6), 2173-2189.
- Aldrich, H. (2008). *Organizations and Environments*. Stanford: Stanford University Press, USA.
- Alsharo, M. & Gregg, D. (2012). *Intention to Collaborate: Investigating Online Collaboration in Virtual Teams*. AMCIS 2012 Proceedings. 22. Anderson, J. C. & D. W. Gerbing. (1988). Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach. *Psychological Bulletin*, 103(3), 411-423.
- Andreu, L., Sanchez, I. & Mele, C. (2010). Value Co-Creation among Retailers and Consumers: New Insights into the Furniture Market. *Journal of Retailing and Consumer Services*, 17(4), 241–250.
- Antico, M., Moenaert, R. K., Lindgreen, A. & Wetzels, M. G. M. (2008). Organizational Antecedents to and Consequences of Service Business Orientations in Manufacturing Companies. *Journal of the Academy of Marketing Science*, 36(3), 337-358.
- Arakji, R. Y. & Lang, K. R. (2007). The Virtual Cathedral and the Virtual Bazaar. *ACM SIGMIS Database*, 38(4), 32-39.
- Auh, S., Bell, S. J., McLeod, C. S. & Shih, E. (2007). Co-production and Customer Loyalty in Financial Services. *Journal of Retailing*, 83(3), 359-370.
- Ballantyne, D. & Varey, R. J. (2006). Creating Value-In-Use through Marketing Interaction: The Exchange Logic of Relating, Communicating and Knowing. *Marketing Theory*, 6(3), 335-348. 4.
- Bangare, M. L., Bangare, P. M., Ramirez-Asis, E. & Bhat, D. A. R. (2021). Role of machine learning in improving tourism and education sector. *Materials Today: Proceedings*, 51(8), 2457-2461.
- Barney, J. B. (1991). Firms Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99-120.
- Barros, L. A. M. (2001). *Inovação Como Fator De Competitividade: O Segmento Da Indústria Eletroeletrônica* (Dissertação de mestrado). Programa de Pós-graduação em Administração de Empresas, Universidade Presbiteriana Mackenzie, São Paulo.
- Bhat, D. A. R. & Sharma, V. (2022). Enabling Service Innovation and Firm Performance: The Role of Co-Creation and Technological Innovation in the Hospitality Industry. *Technology Analysis & Strategic Management*, 34(7), 774-786.
- Bhat, D. A. R. & Sharma, V. (2021). Dimensionality and Consequences of Service Innovation: An Empirical Study of the Hospitality Industry. *Cogent Business & Management*, 8(1), 1-17.
- Bjork, P. & Sfantla, C. (2009). A Tripartite Model of Tourist Experience. *Finnish Journal of Tourism*, 5(2), 5-18.
- Boehlje, M. (1999). Structural Changes in the Agricultural Industry: How Do We Measure, Analyze And Understand Them? *American Journal of Agricultural Economics*, 81(5), 1028-1041.

- Brodie, R. J., Hollebeek, L. D., Juric, B. & Ilic, A. (2011). Customer Engagement: Conceptual Domain, Fundamental Propositions, and Implications for Research. *Journal of Service Research*, 14(3), 252-271.
- Brynjolfsson, E. & McAfee, A. (2014). *The Second Machine Age: Work, Progress and Prosperity in a Time of Brilliant Technologies*. New York: Norton & Company.
- Bucklin, L. P. & Sengupta, S. (1993). Organizing Successful Co-Marketing Alliances. *Journal of Marketing*, 57(2), 32-46.
- Buonincontri, P., Morvillo, A., Okumus, F. & M. van Niekerk, M. V. (2017). Managing the Experience Co-Creation Process in Tourism Destination: Empirical Findings from Naples. *Tourism Management*, 62(c), 264-277.
- Camison, C. & Monfort-Mir, M. R. (2012). Measuring Innovation in Tourism from the Schumpeterian and the Dynamic-Capabilities Perspectives. *Tourism Management*, 33(4), 776-789.
- Chen, J. S., Kerr, D., Chou, C. Y. & Ang, C. (2017). Business Co-Creation for Service Innovation in the Hospitality and Tourism Industry. *International Journal of Contemporary Hospitality Management*, 29(6), 1522-1540.
- Chuang, S. H. & Lin, H. N. (2015). Co-creating E-Service Innovation: Theory, Practice and Impact on Firm Performance. *International Journal of Information Management*, 35(3), 277-291.
- Churchill, G. & Iacobucci, D. (2002). *Marketing Research, Methodological Foundations (8th ed.)*. Harcourt publishing: London.
- Conto, S. M. D., Júnior, J. A. V. A. & Vaccaro, G. L. R. (2016). Innovation as a Competitive Advantage Issue: A Cooperative Study on an Organic Juice and Wine Producer. *Gest. Prod., São Carlos*, 23(2), 397-407.
- Daellenbach, H. G. (1994). *Systems and Decision Making: A Management Science Approach*. New York: John Wiley & Sons, Inc.
- Damanpour, F. & Gopalakrishnan, S. (1998), Theories of Organizational Structure and Innovation Adoption: The Role of Environmental Change. *Journal of Engineering and Technology Management*, 15(1), 1-24.
- Damanpour, F., Walker, R. M. & Avellaneda, C. N. (2009). Combinative Effects of Innovation Types and Organisational Performance: A Longitudinal Study of Service Organisations. *Journal of Management Studies*, 46(4), 650-675.
- Della Corte, V., Savastano, I. & Storlazzi, A. (2009). Service Innovation in Cultural Heritages Management and Valorization. *International Journal of Quality and Service Sciences*, 1(3), 225-240.
- Diaz, O. P., R., Giner, G. & Marin, M. R. P. (2016). The Impact of Co-creation on the Student Satisfaction: Analysis Through Structural Equation Modeling. *Hindawi Publishing Corporation*, 1-10.
- Dong, B., Evans, K. R. & Zou, S. (2008). The Effects of Customer Participation in Co-created Service Recovery. *Journal of the Academy of Marketing Science*, 36(1), 123-137.
- Durst, S., Mention, A. L. & Poutanen, P. (2015). Service Innovation and its Impact: What Do We Know About?, *Economía de la Empresa*, 21(2), 65-72.
- El-Gohary, H. (2012). Factors Affecting E-Marketing Adoption and Implementation in Tourism Firms: An Empirical Investigation of Egyptian Small Tourism Organizations. *Tourism Management*, 33(5), 1256-1269.
- Ferraz, I. N. & Santos, N. M. (2016). The Relationship between Service Innovation and Performance: A Bibliometric Analysis and Research Agenda Proposal. *RAI Revista de Administração e Inovação*, 13(4), 251-260.

- Fisher, D. K., Norvell, J., Sonka, S. & Nelson, M. J. (2000). Understanding Technology Adoption through System Dynamics Modeling: Implications for Agribusiness Management. *International Food and Agribusiness Management Review*, 3(3), 281-296.
- Fornell, C. & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18(1), 39-50.
- Gössling, S. & Hall, C. M. (2006). Uncertainties in Predicting Tourist Flows under Scenarios of Climate Change. *Climatic Change*, 79(3), 163-173
- Grisseman, U. S. & Stokburger-Sauer, N. E. (2012). Customer Co-creation of Travel Services: The Role of Company Support and Customer Satisfaction with the Co-creation Performance. *Tourism Management*, 33(6), 1483-1492.
- Gronroos, C. & P. Voima. (2013). Critical service Logic: Making Sense of Value Creation and Co-creation. *Journal of the Academy of Marketing Science*, 41(2), 133-150.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E. & Tatham, R. L. (2010). *Multivariate Data Analysis*. Pearson Prentice Hall: Hoboken.
- Hjalager, A. M. (2010). A Review of Innovation Research in Tourism. *Tourism Management*, 31(1), 1-12.
- Hoyer, W. D., Kroschke, M., Schmitt, B., Kraume, K. & Shankar, V. (2020). Transforming the Customer Experience Through New Technologies. *Journal of Interactive Marketing*, 51(1), 57-71.
- Hsiao, C., Lee, Y. H. & W. J. Chen. (2015). The Effect of Servant Leadership on Customer Value Co-creation: A Cross-Level Analysis of Key Mediating Roles. *Tourism Management*, 49(C), 45-57.
- Ida, E. (2017). The Role of Customers Involvement in Value Co-Creation Behaviour is Value Co-creation the Source of Competitive Advantage?. *Journal of Competitiveness*, 9(3), 51-66.
- Im, J. & Qu, H. (2017). Drivers and Resources of Customer Co-creation: Scenario-Based Case in the Restaurant Industry. *International Journal of Hospitality Management*, 64, 31-40. doi: 10.1016/j.ijhm.2017.03.007.
- Kasnakoglu, B. T. (2016). Antecedents and Consequences of Co-Creation in Credence-Based Service Contexts. *The Service Industries Journal*, 36(1-2), 1-20.
- Kokins, G., Straujuma, A. & Lapiņa, I. (2021). The Role of Consumer and Customer Journeys in Customer Experience Driven and Open Innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(3), 1-20.
- Kyei, D. A. & Bayoh, A. T. M. (2017). Innovation and Customer Retention in the Ghanaian Telecommunication Industry. *International Journal of Innovation*, 5(2), 171-183
- Lagrosen, S. (2005). Customer Involvement in New Product Development: A Relationship Marketing Perspective. *European Journal of Innovation Management*, 8(4), 424-436.
- Lariviere, B., Bowen, D., Andreassen, T. W., Kunz, W., Sirianni, N. J., Voss, C., Wunderlich, N. V. & Keyser, A. D. (2017). Service Encounter 2.0: An Investigation into the Roles of Technology, Employees and Customers. *Journal of Business Research*, 79, 238-246.
- Lee, S. M., Olson, D. L. & Trimi, S. (2012). Co-innovation: Convergencomics, Collaboration, and Co-Creation for Organizational Values. *Management Decision*, 50(5), 817-831.
- Lekgau, R. J. & Tichaawa, T. M. (2022). Exploring the Use of Virtual and Hybrid Events for MICE Sector Resilience: The Case of South Africa. *African Journal of Hospitality, Tourism and Leisure*, 11(4), 1579-1594.

- Lorenzo-Romero, C., Andrés-Martínez, M. E., Cordente-Rodríguez, M. & Gómez-Borja, M. A. (2021). Active Participation of E-Consumer: A Qualitative Analysis from Fashion Retailer Perspective. *Sage Open*, 11(1), 1-15.
- Lorenzo-Romero, C., Constantinides, E. & Brünink, L. A. (2014). Co-creation: Customer Integration In Social Media Based Product and Service Development. *Procedia-Social and Behavioral Sciences*.
- Lundkvist, A. & Yakhlef, A. (2004). Customer Involvement in New Service Development: A Conversational Approach. *Managing Service Quality*, 14(2/3), 249-257.
- Ma, S., Gu, H., Wang, Y. & Hampson, D. P. (2017). Opportunities and Challenges of Value Co-creation. *International Journal of Contemporary Hospitality Management*, 29(12), 3023-3043.
- Mainardes, E. W., Funchal, B. & Soares, J. (2017). The Informatics Technology and Innovation in the Service Production. *Structural Change and Economic Dynamics*, 43, 27-38.
- Manfredo, M. J. (1989). An Investigation of the Basis for External Information Search in Recreation and Tourism. *Leisure Sciences*, 11(1), 29-45.
- Maroto-Sánchez, A. (2012). Productivity in the Services Sector: Conventional and Current Explanations. *The Service Industries Journal*, 32(5), 719-746.
- Martinez-Canas, R., Ruiz-Palomino, P., Linuesa-Langreo, J. & Blazquez-Resino J. J. (2016). Consumer Participation in Co-Creation: An Enlightening Model of Causes and Effects Based on Ethical Values and Transcendent Motives. *Frontiers in Psychology*, 7, 1-17.
- Mathis, E. F., Kim, H. L, Uysal, M., Sirgy, J. M. & Prebensen, N. K. (2016). The Effect of Co-Creation Experience on Outcome Variable. *Annals of Tourism Research*, 57(C), 62-75.
- Mention, A. L. (2011). Intellectual Capital, Innovation and Performance: A Systematic Review of the Literature. *Business and Economic Research*, 2(1), 1-37.
- Nambisan, S. (2002). Designing Virtual Customer Environments for New Product Development: Toward A Theory. *Academy of Management Review*, 27(3), 392-413.
- O'Hern, M. S. & Rindfleisch, A. (2009). Customer Co-Creation: A Typology and Research Agenda. In N. K. Malhotra. & Armonk (Eds.), *Review of Marketing Research* (pp. 84-106). Sharpe Publication: New York.
- Oertzen, A. S., Odekerken, G. & Mager, B. (2017). Service Innovation in Value Co-Creation: A Context and an Outcome. *Conference Paper*. Available at <https://www.researchgate.net/publication/318463601>[Retrieved 12 October 2023].
- Pacauskas, D., Rajala, R., Westerlund, M. & Mäntymäki, M. (2018). Harnessing User Innovation for Social Media Marketing: Case Study of a Crowd sourced Hamburger. *International Journal of Information Management*, 43, 319-327.
- Panayiedes, P. (2006). Enhancing Innovation Capability through Relationship Management and Implications for Performance. *European Journal of Innovation Management*, 9(4), 466-483.
- Patterson, P., Yu, T. & De Ruyter, K. (2006). *Understanding Customer Engagement in Services*, In Proceedings of ANZMAC 2006 Conference, Advancing Theory, Maintaining Relevance, 4-6 December (Brisbane, QLD).
- Payne, A. F., Storbacka, K. & Frow, P. (2008). Managing the Co-Creation of Value. *Journal of the Academy of Marketing Science*, 36(1), 83-96.
- Pena, A. I. P., Jamilena, D. M. F. & Molina, M. A. R. (2014). Value Co-creation via Information and Communications Technology. *The Service Industries Journal*, 34(13), 1043-1059.

- Piligrimiene, Z., Dovaliene. A. & Virvilaite, R. (2015). Consumer Engagement in Value Cocreation: What Kind of Value it creates for The Company? *Inzinerene Ekonomika Engineering Economics*, 26(4), 452–460.
- Piller, F., Vossen, A. & Ihl, C. (2012). From Social Media to Social Product Development: The Impact of Social Media on Co-creation of Innovation. *Die Unternehmung*, 66(1), 7-27.
- Prahalad, C. K. & Ramaswamy, V. (2004). Co-creating Unique Value with Customers. *Strategy & Leadership*, 32(3), 4–9.
- Prajogo, D. I. (2006). A Process-Based Classification of Knowledge Maps and Application Examples. *Knowledge and Process Management*, 13(3), 218–225.
- Prebensen, N. K. & Foss, L. (2011). Coping and Co-creating in Tourist Experiences. *International Journal of Tourism Research*, 13(1), 54–67.
- Prebensen, N. K. & J. Xie. (2017). Efficacy of Co-Creation and Mastering on Perceived Value and Satisfaction in Tourists' Consumption. *Tourism Management*, 60(C), 166-76.
- Prebensen, N. K., H. Kim. & Uysal, M. (2016). Co-creation as Moderator between the Experience Value and Satisfaction Relationship. *Journal of Travel Research*, 55(7), 934-45.
- Preikschas, M. W., Cabanelas, P., Rudiger, K. & Lampon, J. F. (2015). Value Co-creation, Dynamic Capabilities and Customer Retention in Industrial Markets. *Munich Personal RePEc Archive*, Paper No. 65391, 1-17.
- Ramaswamy, R. & Gouillart, F. (2010). *Building the Co-creative Enterprise*. Available at <http://www.gsg.com.au/media/24460/r1010j-pdf-eng.pdf>. [Retrieved 03 March 2011].
- Ranjan, K. R. & Read, S. (2016). Value Co-creation: Concept and Measurement. *Journal of the Academy of Marketing Science*, 42(4), 290-315.
- Ratchford, M. & Barnhart, M. (2012). Development and Validation of the Technology Adoption Propensity (TAP) Index. *Journal of Business Research*, 65(8), 1209-1215.
- Seppä, M. & Tanev, S. (2011). The Future of Co-Creation. *Open Source Business Resource*, Available at <http://timreview.ca/article/423> [Retrieved March 2011].
- Sharma, V. & Bhat, D. A. R. (2020). An Empirical Study Exploring the Relationship among Human Capital Innovation, Service Innovation, Competitive Advantage and Employee Productivity in Hospitality Services. *African Journal of Hospitality, Tourism and Leisure*, 9(2), 1-14.
- Sharma, V. & Bhat, D. A. R. (2020a). Co-creation and Service Innovation as Performance Indicators in the Hospitality Industry. *Journal of Tourism, Hospitality & Culinary Arts*, 12(2), 76-95.
- Shaw, G., Bailey, A. & Williams, A. (2011). Aspects of Service-Dominant Logic and its Implications for Tourism Management: Examples from the Hotel Industry. *Tourism Management*, 32(2), 207-214.
- Silva, F. J., Camacho, M. A. & Vázquez, M. (2013). Heterogeneity of Customers of Personal Image Services: A Segmentation Based on Value Co-Creation. *International Entrepreneurship Management Journal*, 9(4), 619-630.
- Storey, C. & Larbig, C. (2017). Absorbing Customer Knowledge: How Customer Involvement Enables Service Design Success. *Journal of Service Research*, 21(1), 101-118.
- Sugathan, P. & K. R. Ranjan. (2019). Co-creating the Tourism Experience. *Journal of Business Research*, 100, 207-217.
- Taherdoost, H. (2018). A Review of Technology Acceptance and Adoption Models and Theories. *Procedia Manufacturing*, 22, 960-967.10.1016/j.promfg.2018.03.137.



- Tapscott, D. & Williams, A. D. (2006) *Wikinomics: How Mass Collaboration Changes Everything*. Portfolio Publisher: New York.
- Tippins, M, J. & Sohi, R, S. (2003). IT Competency and Firm Performance: Is Organizational Learning a Missing Link?. *Strategic Management Journal*, 24(8), 745-761.
- Tsou, H. T. & Chen, J. S., (2012). The Influence of Inter-Firm Co-Development Competency on E-Service Innovation. *Information & Management*, 49(3-4), 177–189.
- Wang, Z. & H. G. Kim. (2017). Can Social Media Marketing Improve Customer Relationship Capabilities and Firm Performance: Dynamic Capability Perspective? *Journal of Interactive Marketing*, 39(c), 15-26.
- Wikström, S. (1996). The Customer as Co-producer. *European Journal of Marketing*, 30(4), 6-19.
- Yi, Y., Natarajan, R. & Gong, T (2011). Customer Participation and Citizenship Behavioral Influences on Employee Performance, Satisfaction, Commitment and Turnover Intention. *Journal of Business Research*, 64(1), 87-95
- Zhang, X. & Chen, R. (2008). Examining the Mechanism of the Value Co-Creation with Customers. *International Journal of Production Economics*, 116(2), 242-250.
- Zhou, B., Yim, D. & Tse, J. Mark. (2005). The Effects of Strategic Orientations on Technology- and Market-Based Breakthrough Innovations. *Journal of Marketing*, 69(2), 42-60.