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Atypical Shifts Post-failure: Influence of Co-creation on Attribution and Future Motivation to Co-create

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Abstract

This study investigates how the effect of the failure of co-created products or services influences: (a) internal attribution (i.e. the self) and external attribution (i.e. the firm), (b) customers' expectancies of success, and (c) customers' future motivation to co-create and contribute to recovery from failure. We use attribution theory and the attribution–expectancy framework to explain the theoretical relationships we advance and test our hypotheses in two independent experiments that stimulate co-creation through role-play and vignettes. The results show that customer co-creation shifts the attribution for failure to the self, resulting in atypical shifts in expectancy (increasing customers' expectancy of future success and motivation to continue co-creating in the future). Our results suggest that utilizing customers' efforts and skills in the co-creation of products and services can help firms to manage failure effectively. The implications of our findings on co-creation research and product and service failures are discussed, specific applications within the digital context are considered, and suggestions are offered for future research.

Keywords: Co-creation; Failure; Attribution; Customer participation; Service recovery; Expectancy

Introduction

Co-creation involves customer participation in various stages of production and use processes through the application of operant resources such as knowledge, skills, and effort (Vargo and Lusch 2004, 2008). Co-creation and computer technology have supplemented each other's advancement over the last decade, particularly after Prahalad and Ramaswamy's (2004) seminal paper was published in the *Journal of Interactive Marketing*. The interactive technology platforms that have been created as an outcome of the internet revolution have supported co-creation between firms and customers by facilitating collaboration, interactivity, outreach, speed, and flexibility (Bacile, Ye, and Swilley 2014; Bolton and Saxena-Iyer 2009; Rossmann, Ranjan, and Sugathan 2016; Sawhney, Verona, and Prandelli 2005). Consequently, several scholars in the domain of interactive marketing have devoted a significant effort to understanding customization, firm–customer interactions, and co-creation (Bacile, Ye, and Swilley 2014; Hsieh and Chang 2016; Miceli, Ricotta, and Costabile 2007; Wind and Rangaswamy 2001).

Firms are increasingly adopting co-creation for three reasons. First, the internet has facilitated the emergence of new channels of consumer–firm engagement. Second, new technologies such as 3D printing and Web 2.0 technology have enabled firms and consumers to co-create with ease. Third, as customers are becoming more informed and interconnected, they are demanding participation and co-creation as opposed to remaining passive receivers of value (Deighton and Kornfeld 2009; Sawhney, Verona, and Prandelli 2005; Schaefer and VanTine 2010; Shankar and Malthouse 2009). An IBM survey found that 78% of consumers worldwide are willing to co-create products and services with their retailers (Schaefer and VanTine 2010). Technology has made it possible for leaders in innovation such as P&G, BMW, Siemens, and Beiersdorf to engage in co-creation (Bilgram, Bartl, and Biel 2011). In the digital world, firms are using customer designs to co-create everything from apparels to

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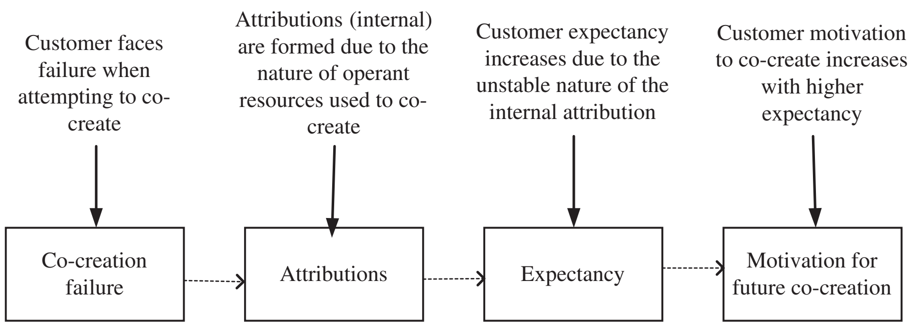

Fig. 1. Reduced model.

automobiles (e.g., Local Motors, Threadless). Therefore, research on co-creation has gained importance across diverse areas, including public policy, innovation, operations, and marketing (Galvagno and Dalli 2014; Voorberg, Bekkers, and Tummers 2015). As such, it is emerging as a new and strategically beneficial frontier in the competitive effectiveness of modern organizations (Bendapudi and Leone 2003; Vargo and Lusch 2016). However, the positive effects of co-creation are accompanied by the challenges of managing firm–consumer interactivity and dealing with the implications of failed co-created products and services.

Extant research has predominantly focused on successful co-creation, which has somewhat overshadowed research that aims to understand the 'failure of co-created products or services' (henceforth, simply *failure*)[1] (Dong, Evans, and Zou 2008; Heidenreich et al. 2015). The interactive processes of co-creation bring diverse groups of customers into contact with firms and an increased number of customer–firm touchpoints increases the propensity of failure (Hart, Heskett, and Sasser 1989; Zeithaml, Parasuraman, and Berry 1985). Failure indicates that the co-created product or service does not meet the customer's desired usage objectives. As it is unintentional and outside of customers' control, it is distinct from other adverse situations such as the co-destruction of value (Smith 2013), dysfunctional customer behavior during co-creation (Greer 2015), or the boomerang effect (Kull and Heath, 2016). On the one hand, the possibility of failure might negatively influence customers' satisfaction and intentions to repurchase (Keaveney 1995; McCollough, Berry, and Yadav 2000). On the other hand, the interaction and other positive effects of co-creation may generate value (Srivastava and Shainesh 2015). Therefore, the overall effect and nature of failure are theoretically intriguing and important to understand in terms of practice.

This study contributes to the literature by offering a clear understanding of consumers' evaluation of failure, their subsequent attributions, their expectancy of success, and their willingness to co-create in the future (henceforth, CCF). We attempt to answer the following open questions: (1) Once failure has occurred, how are attributions influenced by degrees of co-creation? (2) How do these attributions influence customer expectancies? (3) How does attribution, and in turn, expectancy, affect CCF? These questions are investigated by using the attribution–expectancy framework (Teas and McElroy 1986) to support our central argument that co-creation will affect failure attribution, which will in turn positively affect customer expectancies and CCF (Fig. 1).

This study makes three contributions to the research on failure and co-creation. First, we explain customer co-creation as an inexpensive mechanism to shift failure attribution from the firm to the customer. Second, using expectancy as a mediator, we link attribution processes and motivation to co-creation when customers face failure, thereby offering an important mechanism for managing the adverse consequences of failure. Third, we demonstrate the advantage of co-creation's capacity to cause an atypical improvement in customers' willingness to initiate recovery efforts and remain involved in them, despite having previously experienced failure. The explanation of atypical expectancy shifts within the context of co-creation offers insights into the attribution–expectancy theory put forth in psychology.

The remainder of this article is organized as follows. A formal introduction to co-creation within the context of our research is followed by a synthesis of attribution and expectancy theories in order to derive our central hypotheses. Next, we delineate our empirical research, which comprised two experiments (including data collection methods, analyses, and findings). Lastly, the Discussion section addresses the implications and limitations of the research.

Conceptual Development

Co-creation

Co-creation has been conceptualized in various ways. It entails the creation of value *for* each other by two or more entities across several loci of production and consumption and through the processes of interaction, engagement, personalization, equity, relationship, and usage experiences (Ranjan and Read 2016; Vargo and Lusch 2016). Co-creation has also been defined as the mutual and compensatory expenditure of resources and effort by co-creators (Arnould, Price, and Malshe 2006; Heidenreich et al. 2015; McColl-Kennedy et al. 2012). In a literature review of co-creation behavior, Handrich and Heidenreich (2013) found that 65% of the studies used customer effort as the major descriptor of customer co-creation, while the remainder used personalization. We incorporate this diversity in

[1] For the simplicity of presentation, 'failure' implies the 'failure of co-created products or services', unless specified otherwise.