

Managing Customer Participation Through Customer Education

Mohamed Sobhy Ahmed Hassan Temerak

Heidi Winklhofer

Sally Hibbert

Abstract

With the acknowledgement that customers are co-creators of value (Vargo and Lusch, 2004) has come greater prominence for customer education as a crucial aspect of communications that contributes to the management of customers' participation. This paper proposes an overarching model of the relationship between customer education and customer participation, based on a review of the extant literature. The model consists of four basic parts, namely, forms of customer education, forms of customer participation, psychological mechanisms mediating customer education-participation relationships and contextual factors moderating customer education effects. A review of the extant literature reveals relationships that have been conceptualised and empirically examined; it explores research methods, design, measurement and sampling issues and considers fragmentation in the literature that has left gaps in current knowledge and even obscured our understanding of the customer education-participation relationship. The paper concludes with an agenda for future research in this area.

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1. Introduction

Customer learning is central to the co-creation of value (Payne et al., 2008). Customers need to learn a set of skills and behaviours relevant to the purchase, production, consumption/use of goods and services to be able to effectively participate in and contribute towards value creation (Bitner et al., 1997; Meuter et al., 2000). Otherwise, co-creation opportunities are threatened by poor customer performance (Honebein and Cammarano, 2005; Etgar, 2008).

Many firms recognise the benefits of developing their customers' capabilities (e.g. Home Depot, Nikon, Charles Swap, WeightWatchers) and have implemented customer education programs of various sorts (Honebein and Cammarano, 2005). Common tools include traditional media such as professional advice, seminars, advertising, FAQs and booklets (Burton, 2002), but these are increasingly complimented by, interact with or even compete with customer education via new media such as on-line videos, simulations, blogs and forums (Gruen et al., 2006).

A growing body of empirical research has successfully demonstrated that where customers are exposed to or engage with educational tools, there are positive impacts on participative behaviours (e.g. Kelley et al., 1992; Auh et al., 2007). In addition, scholars have conceptualised and empirically examined some psychological processes (e.g. self-efficacy, role clarity, perceived control) by which consumer education prepares customers to participate (e.g. Faranda, 1994; Dellande et al., 2004; Zaho et al., 2008). However, there is substantial fragmentation within this body of literature in

terms of the conceptualization of both customer education and participative behaviours as well as in the way they address the relationship between them. There is as yet no overarching model of the customer education-participation relationship, despite the desirability of a common theoretical framework to enable synthesis of research as knowledge of this issue develops.

The purpose of this paper is to work towards an overarching theoretical framework of the relationship between customer education and participation. We present a model that depicts this relationship and the intervening psychological processes. The model also indicates the influence of personal, situational and temporal factors on the education-participation relationship. Explanation of the model draws on extant literature, reviewing the scholarship in which these relationships have been conceptualised and/or examined empirically. We also address two key limitations of the extant literature by accounting for the dynamic nature of the customer education process and acknowledging that there are multiple sources of customer education that often influence participative behaviours in combination, rather than in isolation. Our model is not intended as a definitive theoretical framework, but we hope to provide the foundation for further debate of consumer learning and customer participation.

2. A Model of Customer Learning and Participation

Figure 1 depicts a model that details the processes through which customer education leads to customer participation. The four core elements of the model are the forms of customer education, the types of customer participation, the psychological responses that mediate the education-participation relationship and the contextual factors that

moderate the effects of customer education. The model reflects the dynamic nature of the process such that it indicates the influence of particular factors at $t_{(n)}$ (during the current episode) and at $t_{(n-1)}$ (from the previous episode). The forms of customer education are characterised in terms of the educational source, channel, content and timing. Customer participation includes customer co-creation and citizenship behaviours. The mediating psychological responses include customer role readiness variables (i.e. ability, motivation and role clarity), behavioural control, customer trust in the firm and commitment, customer satisfaction with his/her own performance and customer satisfaction with the firm. Finally, the contextual factors refer to the situational, personal and temporal factors influencing these responses.

Figure 1: A Model of Customer Education Leading to Customer Participation

-----Insert Figure 1 about here-----

2.1 Understanding and Managing Customer Education

Customer education is widely acknowledged as an essential step in improving, soliciting and enhancing customer participation (Lovelock and Young, 1979; Bitner et al., 1997; Zeithaml et al., 2004). Prominent methods of customer education include advertising, service personnel, leaflets, seminars and web sites. (Aubert, 2006; Burton, 2002). There is a greater requirement for customer education for difficult to use products (e.g. digital cameras) (Aubert, 2006), for complex services and for novice rather than expert consumers (Goodwin, 1988; Burton, 2002). It is also required for services that involve high levels of customisation, whether the service acts are directed at people (e.g. medical services and health clubs) or at intangible entities (e.g. stock broker and trust banking) (Kelley et al., 1990). Under these circumstances

customer skills typically need to be developed in order for them to collaborate effectively in creating value (Fodness et al., 1993).

Although firms stand to benefit from encouraging customers to contribute to value creating activities, high levels of uncertainty about its outcomes make it is a risky enterprise that requires careful management (Ennew and Binks, 1996; Hsieh et al., 2004; Zeithaml et al., 2004). This demands a thorough understanding of how customers respond to different forms of consumer education under particular circumstances. Further, changes in the communications environment continue to present new challenges. While the sources of customer learning have remained the same for several decades, there have been dramatic changes in the channels and the content of communications in recent years due to developments in ICT. For example, firms have been able to communicate in more tailored ways through targeted advertising and direct marketing and to blend communications more effectively. But perhaps the most striking change has been the massive growth in customer-to-customer communication. The resultant democracy of information is hailed as a key driver of consumer empowerment (Pires et al., 2006). One of the greatest challenges for firms seeking to understand and manage customer education is how this powerful and unpredictable source of consumer learning can be harnessed and integrated with their own efforts to educate customers.

2.2 Customer Education and Learning

To effectively manage customer education requires understanding of how characteristics of customer education influences people, both in terms of their participative behaviour and the psychological processes that mediate its effects.

Two main streams of literature inform our understanding of these relationships; customer education and customer socialisation. Both streams of literature provide insights into customer learning, participative behaviours and outcomes such as satisfaction. Experimental and survey methods have been most widely adopted in both streams of research (Kelley et al., 1992; Lengnick-Hall et al., 2000; Evans et al., 2008) but they are distinguished by whether the source of learning is identified. Customer socialization is seen as synonymous with the customers' understanding of the service script (e.g. Kelley et al., 1992; Groth, 2005), or taken as a proxy for role clarity (e.g. Lengnick-Hall et al., 2000). This literature has made valuable contributions to understanding customer learning processes but, with a small number of exceptions (Evans et al., 2008; Feranda, 1994), it has provided few insights into the impact of various educational channels, their source, content or timing. For instance, it does not distinguish the role of education that comes from the firm as opposed to other customers. In contrast, the customer education literature has placed greater emphasis on examining the characteristics of particular forms of customer education, providing more specific managerial guidance for the implementation of customer education communications.

Definitions of customer education have focused on either the methods or psychological consequences of customer education. For instance, Honebein and Cammarano (2005) argue that "a company invests in improving customer expertise in relation to the goods and services the company markets, [therefore] the methods employed by a company fall under the label of customer education" (p176). This contrasts with definitions (e.g. Bell and Eisingerich, 2007) that focus on customer learning outcomes that follow from engagement with customer education

communications such as improved skills and understanding that enable customers to use information more effectively. The latter is more in keeping with definitions of customer socialisation (Kelley et al., 1992) and illustrates the overlap between these two bodies of literature. In this paper we consider the methods by which organisations' seek to educate customer as the customer education, as distinct from the psychological processes and other outcomes that mediate its effects on participative behaviours. In part we favour this definition because it focuses attention on features of customer education communications but also because a range of outcomes indicate the effectiveness of customer education, which are not captured by a narrow focus on the development of customer skills and understanding. Rather education effectiveness (discussed in detail later in the paper) extend to improvement in outcomes including customer knowledge (e.g. Hutton et al., 1986; Zaho et al., 2008), level of customer satisfaction (Faranda, 1994; Zaho et al., 2008) and, changes in certain behaviour(s) (e.g. Hutton et al., 1986; Jacoby et al., 2001).

Extant scholarship has examined how characteristics of customer education including source, channel, content and timing influence the outcomes of customer education. As customer education is concerned with "methods employed by a company" to improve customer expertise, the majority of customer education studies focus on the service providers as a source of education (Auh et al., 2007; Aubert, 2006), despite the fact that there are opportunities for firms to facilitate access to customer education from other customers (e.g. forums and blogs on the firm's web site) and third parties (e.g. links to reports and other web sites).

Scholars have primarily focused on to the expertise of the source (Gruen et al., 2006; Auh et al., 2007; Dellande et al., 2004; Eisingerich and Bell, 2006; 2008; Bell and Eisingerich, 2007). Research has typically been carried out in the context of a single channel (e.g. sale personnel) and customer education has been assessed either directly (e.g. the extent to which service personnel explain the main concepts; the reliability of suggested ideas in the online forum) or indirectly (i.e. assessing customers' perception of service personnel expertise) (Dellande et al., 2004) but there is consensus amongst the findings and, together, these studies provide considerable evidence that the expertise of the customer education source positively impacts on its effectiveness.

In contrast, studies little attention has been devoted to perceptions of source credibility and findings are divergent. Within the literature that focuses solely on the service provider as a source of education, researchers have the relationship between customer education/socialisation and outcomes of trust in the firm and satisfaction. In a study by Evans et al. (2008), socialized customers (i.e. those who had received educational stimuli) show lower levels of trust and satisfaction than un-socialized ones but these results disagree with Faranda (1994) and Kelley et al. (1992) with respect to customer satisfaction and with Eisingerich and Bell (2008) with respect to customer trust.

Research that has considered different sources of customer education has provided evidence that customers express greater interest in learning from online forums than corporate websites (Bickart and Schindler, 2001) and literature on customer-to-customer know-how exchange shows that other customers are regarded as a more credible source of customer education and even to be more knowledgeable and

provide a higher quality of customer education (Harris et al., 1999; Gruen et al., 2006; 2007). These findings highlight the importance of examining consumer perceptions of the qualities of alternative sources of sources of customer education. To fully understand how the source of customer education impacts on effectiveness also requires research to investigate how channel and content factors interact with source.

With regard to channels, it is widely accepted that customers draw on a range of communication channels to educate themselves (see Meer, 1984; Honebein, 1996). Customers' propensity to use of alternative channels (e.g. advertising, mailing, face-to-face communications) for different types of information is well documented in the information search literature (Lee and Cho, 2005). Yet, our understanding of the relative importance or effectiveness of a combination of channels of customer education is still rudimentary due the strong focus on single channel research designs.

Research that examines how features of customer education content influence effectiveness is scarce. Mitatal and Sawhney (2001) highlight the importance of communicating both content-based knowledge (i.e. knowledge about product components, performance specification, etc.) and process-based knowledge (i.e. knowledge of how to use the product properly and how to perform certain tasks) and show that customer education is most effective when it combines both types of knowledge. There is wide scope to extend this aspect of the customer education literature, drawing from other streams of research in consumer behaviour and marketing communications to build understanding of how features of content (e.g. controllability, goal relevance, emotive vs. informational content) affect customer education outcomes.

Finally, the impact of customer education timing (i.e. pre-encounter education or during service encounter education) has not been evaluated and so proper guidance on the timing of customer education is scarce.

The psychological mechanisms by customer education influences participation have been the subject of a considerable part of the literature in this area (see Table 1) and this is reviewed in the following pages after the forms of customer participation have been explored. However, the review of customer education above, demonstrates that research to date has provided only a limited view of the characteristics of customer education that influence its effects on customers. Hence managers can be advised that they should seek to educate their customers, but much more research is required to be able to offer guidance on the best way to do so.

2.3 Customer Participation: Co-Creation and Citizenship Behaviour

The S-D logic paradigm places customer co-creation centre stage (e.g. Vargo and Lusch, 2004). Firms are keen to encourage customer participation because it augments customer service quality perceptions, perceived value and leads to better relationships (Kelly et al., 1990; Ennew and Binks, 1996; Claycomb et al., 2001). It also results in higher productivity (Mills et al., 1983), lower labour costs and, in turn, greater profitability (Dabholkar, 2000; Dabholkar and Bagozzi, 2002).

Customer co-creation requires efforts from the customers to participate in and contribute to the service creation and delivery process. These contributions include mental (i.e. information sharing), emotional (e.g. behaving in a patient and pleasant way when dealing with service employees) and physical inputs (i.e. exert some

physical effort) (Rodie and Kleine, 2000). In some services (e.g. health care), the service cannot be completed without active customer participation in the service creation process (Bitner et al., 1997; Zeithaml et al., 2004; Groth, 2005).

Some customer participative roles may not be directly related to the creation of the service (Bitner et al., 1997; Bettencourt, 1997); for instance, customers perform roles as oral participants (i.e. offering help and advise to other customers) (Harris et al., 1995; Harris et al., 1999; Parker and Ward, 2000; Blazevic and Lievens, 2008), organizational consultants (i.e. making suggestions to their service provider) (Bitner et al., 1997) and promoters of the firm (i.e. spreading positive word of mouth about the firm) (Bettencourt, 1997). These roles entail customer citizenship behaviour (Lengwick-Hall et al. 2000; Groth 2005) , i.e. “voluntary and discretionary behaviour of individual customers that is not directly or explicitly expected or rewarded but that, in the aggregate, leads to higher service quality and promotes the effective functioning of service organizations” (Groth, 2001:13). As Groth (2005) demonstrated, customer co-creation and citizenship behaviours are distinct constructs. Nevertheless, previous empirical work has been fairly inconsistent in its operationalization of the two constructs, or has not differentiated at all. The following summary draws on the operationalizations that distinguish customer co-creation and citizenship behaviour. Customer education affects both of those outcomes, albeit through different psychological mechanisms. In the following sections we will detail these mediating relationships.

2.4 Psychological Mediators

Only a handful of studies (Kelley, 1992; Dellande et al. 2004; Aubert, 2006; Dong et al. 2008; Zaho et al. 2008) have examined the effects of customer education/socialisation on participation via psychological mediators triggered by customer education (see Table 1), while others have related customer education directly to components of customer participation (e.g. Lengnick-Hall et al. 2000; Mittal and Sawhney, 2001; Sawhney et al. 2005). The following review of the psychological mediators will draw on the full mediation studies in conjunction with the highly fragmented literature that has investigated the psychological mediators either as direct consequences of education or as antecedents of participation and citizenship behaviour.

Insert Table 1 about here

2.4.1 Mediators Between Customer Education and Co-Creation Behaviour

The literature widely agrees that customer education provides customers with ability (Aubert, 2006; Hennig-Thurau, 2000; Dellande et al., 2004), motivation (Zaho et al., 2008) and clarity of their expected roles in the service encounter (Dellande et al., 2004; Govender, 1998 cited in Kotze and Plessis, 2003). Similar effects were reported in the context of customer socialization (e.g. Kelley et al., 1992; Faranda, 1994; Meuter et al., 2005). Customer education also improves customer self-efficacy (Zaho et al. 2008). Changes in a customer's ability in turn affect his or her willingness to participate (Rodie and Kleine, 2000), as people usually join activities which are within their perceived capability (Bandura, 1977; 1982). Customer ability, motivation

and role clarity are widely accepted as key dimensions of customer role readiness to co-create (Rodie and Keleine, 2000; Meuter et al., 2005).

Empirical evidence highlights that customer education enhances a customer's perceived control (Dabholkar, 1990; Faranda, 1994), trust perceptions in the service provider (Eisingerich and Bell, 2008) and satisfaction with the firm (Kelley et al., 1992; Faranda, 1994; Zaho et al., 2008). On the other hand, customer participation is driven by customer perceived control (e.g. Langeard et al., 1981). Customer satisfaction has not yet been conclusively confirmed as a driver of co-creation behaviour. While Kelley et al. (1992) found that customer satisfaction enhances customer co-creation (i.e. mental, physical and emotional inputs), Bettencourt (1997) and Groth (2005) reported that customer satisfaction did not lead to co-creation behavior (i.e. physical and emotional inputs). Trust in the organisation as a mediator between education and participation has so far only been proposed (Lovelock and Young, 1979; Lusch et al., 1992) but not yet empirically tested. Nevertheless, customer education may change customers' attitudes toward the company and/or its products (McNeal, 1978; Hunter, 1985; Burton, 2002), which may lead to honesty (McNeal, 1978) and mutual trust (Hunter, 1985; Eisingerich and Bell, 2008). Conceptually, customer trust is recognized as one of the key variables (Lusch et al., 1992) and, as an essential step (Lovelock and Young, 1979) towards achieving customer participation in service production and delivery.

Although the co-creation process highlights the contributions of both customer and service provider during service creation, the literature, with the exception of a study by Hubbert (1995), has been mainly concerned with the effects of a customer's

satisfaction with the firm's performance and ignored a customer's satisfaction with his/her own performance. The latter is important as successful performance attainment, especially for novice customers, is likely to affect their future co-creation intentions (McKee et al., 2006), and success or failure of a customer trial can positively or negatively affect consumer self efficacy (i.e. performance) expectations, respectively (Bandura, 1977). Consequently, customer satisfaction with one's own performance is expected to be an outcome of customer co-creation behaviour in previous episodes, as it implies co-creation has taken place. Customer satisfaction with one's own performance is expected to determine customer co-creation behaviours in future episodes. This also highlights the dynamic nature of customer co-creation behaviour, a fact widely ignored in empirical studies.

2.4.2. Psychological Mediators Between Customer Education and Customer Citizenship Behaviour

The mediating psychological processes triggered by education and ultimately leading to a customer's citizenship behaviour are less developed and there are few empirical studies. Yi and Gong (2008) call for research to address the effect of customer trust on customer citizenship behaviours, following Konovsky and Pugh's (1994) conclusions that customer trust is a "macro motivator" of citizenship behaviours. Customer satisfaction with the firm has also been linked to citizenship behaviours, although the empirical evidence has produced some mixed results. Customer satisfaction with the firm was not found to lead to citizenship behaviour (i.e. spreading positive word of mouth) in the investigation by Bettencourt (1997) but more recent research by Groth (2005) did show a positive relationship. These mixed results might be attributed to the inconsistent conceptualizations of customer

participative roles, the study contexts and/or the service delivery channel (i.e. face-to-face vs internet). Hence, further investigations are needed across various service contexts and channels.

2.5 Moderating Effects: Individual, Situation and Temporal Influences on Customer Learning

There are a number of possible moderators that enhance or diminish the effect of customer education on learning outcomes and possibly participation. Of primary importance is a customer's expertise, which has been shown to moderate reactions to service providers' education efforts (Canziani 1997; Aubert, 2006; Eisingerich and Bell, 2008). It manifests itself in how comfortable customers feel when asking questions (Eisingerich and Bell, 2008) or their general interest in customer education programs (Canziani, 1997; Honebein and Cammarano, 2005). While its effects on certain outcomes e.g. customer education-customer satisfaction (Aubert, 2006) has been examined, little is known about its moderating effects on other well established relationships in customer education context such as the customer education-trust relationship. Amongst the customer education research that measures knowledge, the majority of studies measure subjective knowledge (e.g. Aubert, 2006; Eisingerich and Bell, 2007) due to time and effort needed to develop objective customer knowledge measures, although Duhan, et al, (1997) show that findings vary for subjective and objective knowledge. Other scholars have used a variety of proxies to capture a customer's level of expertise and familiarity with the company's services, including product usage experience (i.e. number of years) (Braunsberger et al., 2008). Greater consistency in measurement is required to enable conclusions to be reached about the ways in which expertise interacts with customer education efforts.

Customer involvement activates “domain knowledge” (Cohen and Chakravarti, 1990) and acts as an important moderator of the amount and type of information processed (Petty et al., 1983; Vakratsas and Ambler, 1999), and acquisition of new skills (i.e. customer learning) (Goodwin, 1988). Customer involvement needs to be actively considered and controlled by future customer education researchers as moderator of customer education effects. Student samples might be problematic as they often lack the motivation or level of involvement needed (Jacoby et al., 2001)

In terms of situational factors, contextual factors such as the complexity of the service and the speed of innovation in the industry are likely to have important moderating effect on customer education and, in some instances, to interact with other moderators (e.g. customer expertise). Of particular importance in the contemporary environment is the role of customer-to-customer interaction (Gruen et al., 2006; 2007). Customer-to-customer know-how exchange (i.e. sharing ideas, tips and information) has been shown to contribute to customer learning in both offline (Harris et al., 1999) and online contexts (Nambisan and Baron, 2007), but it might similarly influence mediators of customer education such as trust, commitment and satisfaction. Group support can also provide customers with emotional support and motivation to achieve their goals (Ford, 1992). These group support mechanisms may interact with a firm’s customer education efforts – enhancing or diminishing them – with consequences for customer participation. Neglect of group support is surprising given the widespread use of blogs and customer forums, although scholars have called for more research into customer-to-customer interactions (Verhoef et al., 2009).

Feedback from the firm to the customer is another potential moderator of customer education. Hutton et al. (1986) report that customers who are given education material about electricity consumption along with a device that offers feedback on their performance (i.e. consumption) reduce their electricity consumption more than those who have been given education material only. Despite its potential importance, feedback may not be feasible for a number of reasons, including, nature of the service (e.g. credence services) and company internal resources/obstacles.

Finally, Eisingerich and Bell (2008) propose that a customer's time pressure may moderate the impact of customer education initiatives. One could also speculate that a customer's time limitations affect preference for some customer educational channels over others.

3. Conclusions and Suggestions for Future Research

The present paper works towards an overarching model of the customer education-participation relationship. Our review of the literature on customer education/socialisation and customer participation highlights the fragmentation within this body of research and, in particular, that few studies have covered customer education and its effect on customer participation via mediating processes. The majority of work has either ignored mediating processes. In our model we differentiate between two forms of customer participation, namely customer co-creation and citizenship behaviours. Drawing from the extant literature, the paper identifies the intervening psychological mechanisms that mediate the relationships between customer education and the two forms of customer participation. These include customer trust and commitment, customer satisfaction with firm, customer

satisfaction with own performance, customer role readiness variables (i.e. ability, motivation and role clarity) and customer control perceptions, that link customer education and the two forms of customer participation as shown in Figure 1. These mediating effects shed light on the psychological mechanisms that may convert customer education into various forms of customer participation. While some of these effects have a great deal of empirical support (e.g. role readiness (i.e. ability, role clarity and motivation), others have received little attention (e.g. satisfaction with own performance) or have lead to conflicting conclusions (e.g. satisfaction with firm performance). The experimental nature of most of the education literature meant that only very small aspects of the overall model have been tested at any one time, and to numerous operationalisations' of customer education. We discuss individual, situational and contextual factors that may moderate the effects of customer education on customer participation.

The proposed model should be seen as an overall framework and, as our review of the literature leading to this model has shown, a number of interesting questions are unanswered, which we will detail below.

1) Researchers make use of a wide array of proxies to capture the effects of customer education. For instance, some studies use customer's perception of service personnel's expertise as a proxy for the effectiveness of a firm's customer education (see Dellande et al., 2004), while elsewhere the customers' understanding of the service script (e.g. Kelley et al., 1992; Groth, 2005) or role clarity (e.g. Lengnick-Hall et al., 2000) is taken as indicator of customer socialization. This diversity in research design makes comparison of results quite difficult.

2) Investigations of single channels are dominant within the literature (e.g. Bell and Eisingerich, 2007). Despite the value of this approach, alternative research designs that can cope with the multi-channel nature of customer education are required to understand how customers use various channels and combining marketer and non-marketer channels (e.g. on-line forums), especially given that non-marketer channels are increasingly accessible and are regarded as more trustworthy by customers than firm-based customer education.

3) The timing of customer education efforts requires further work. Experimental studies may manipulate the timing of customer education (pre-encounter and during the encounter) to compare education outcomes (e.g. improvement in knowledge/skills, customer satisfaction, customer participation) across these groups. Acknowledging that customers are likely to draw on a range of sources at different stages of the purchasing process or service episode and the importance of group support (e.g. Gruen et al. 2000; 2006), we need to have a better understanding when firm and non-firm based customer education efforts are most effective. The above also highlights, that firms and researchers should not regard customer education as a one-off event, but as a dynamic process. Even the differentiation between novice and experienced customers may be far too simplistic.

4) The literature on customer participation/co-creation implies that contributions of both parties (i.e. customer and service provider) are required. Future studies need to follow a balanced approach when addressing customer satisfaction effects in the context of customer participation and should differentiate between satisfaction with the service provider and a customer's satisfaction with his/her own performance as an

antecedent for further participation. So far, the effects of various levels of satisfaction are little understood. For example, does a low level of satisfaction with ones own performance trigger a desire for further customer education, or act as a de-motivator? Do high levels of satisfaction lead to increased participation and/or citizenship behaviour in future episodes, and under what circumstances? Again, these questions highlight the dynamic nature of the customer education – participation relationship.

5. The foregoing review of the customer participation literature review indicates that it is crucial to differentiate between co-creation and customer citizenship behaviour to maintain consistency and comparability across scholarly work. There is some empirical evidence to suggest that the antecedents of these two types of customer participation may differ across service contexts (Bettencourt, 1997) and delivery channels (Groth, 2005), and hence, more work is needed to explore differences in their antecedents. In particular, customer co-creation activities can be represented by a continuum, which encompasses both production (e.g. new product development) and consumption phases (e.g. service recovery, product maintenance and disposal), the effects of customer education and its antecedents may vary greatly across those phases.

6) We discussed a number of potential moderators, including group support, feedback, a customer's level of expertise, customer involvement and a customer's time pressure that could impact on the effects of customer education and ultimately on customer participation. The literature on which these links are built is rather thin and is highly fragmented, allowing little by the way of comparison. Future research is required to assess exactly what parts of the relationship these variables are moderating.

Customer education is an exciting stream of research in times when growing customer empowerment is driving demand for genuinely superior suppliers of goods and services and management attitudes are shifting to recognise the need to work 'with' customers. Customer education literature has burgeoned in recent years, but its potential usefulness is threatened by a lack of coherence. This paper seeks to address this problem and to strengthen the foundations for the future development of customer education scholarship.

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