ICSIM

Exploring the Fuzzy Front-End of the New Service Development Process – A Conceptual Framework

Achilleas Boukis, a Kostas Kaminakisb*

aStrathclyde Business School, 173 Cathedral Str, Glasgow, G4 0RQ, UK
bAthens University of Economics and Business, 76 Patission Str, Athens, 11473, Greece

Abstract

Existing streams of literature in service innovation and services marketing are integrated to propose a conceptual framework which describes specific team-related and interfunctional level antecedents of the fuzzy front-end (FFE) of the new service development process and discusses their role for enhancing FFE execution quality. In particular, the importance of Internal Market Orientation for role stress, motivation to participate in NSD (team-related antecedents), personalization strategy, conflict resolution and employee integration (interfunctional drivers) is discussed. Additionally, the impact of the aforementioned variables on FFE execution quality is proposed. The moderating effect of some critical contingencies of FFE (i.e. political activity) is also discussed.

Selection and peer-review under responsibility of the 2nd International Conference on Strategic Innovative Marketing.

Keywords: New Service Development; Fuzzy Front End; Internal Market Orientation

1. Introduction

As new service development (NSD) has emerged as a strategic imperative for most service firms, an increasing body of research has examined the nature and S/F factors of the NSD process (Papastathopoulou and Hultink, 2012; Vermeulen, 2004). However, our knowledge about the organization of NSD remains incomplete, as several studies argue that different phases of the innovation process should be considered separately (i.e. front-end vs. back-end) due to different uncertainty levels, resource requirements and strategies for effective management (de Brentani and

* Corresponding author.

E-mail address: achilleas.boukis@strath.ac.uk
Reid, 2012; Kim and Wilemon, 2002). This conceptual paper focuses on the front-end phase of NSD or “the fuzzy front-end” (FFE) which includes the stages of idea generation, idea screening and concept development and is characterized by low levels of formalization, high information intensity and uncertainty, as it involves imprecise process and ad hoc decisions (Alam, 2006). Although a growing body of research suggests that a firm should effectively manage and optimize the FFE to boost the development of successful innovations (de Brentani and Reid, 2012), the identification of managerial practices and intra-organizational contingencies, which facilitate or impede FFE has attracted little research scrutiny (Verworn et al., 2008; Poskela and Martinsuo, 2009). Against this background, the aim of this conceptual model is to provide a deeper understanding of the FFE so as to help service firms to more successfully manage the front-end stages of service innovation. In this vein, some research propositions are presented (Figure 1) so as to illustrate how the adoption of an Internal Market Orientation (IMO) can influence some team-related (role ambiguity and motivation to participate to NSD) and interfunctional antecedents (personalization strategy, employee integration and conflict resolution) of the FFE execution quality. By addressing these issues, this conceptual paper is expected to add to the understanding of the front-end stages of NSD by developing a solid basis for future empirical research.

2. Conceptual framework and Model development

The main argument of this study is that adopting IMO helps service firms towards a more successful FFE. IMO is a managerial philosophy, which emphasizes the formation of effective relationships between the firm’s employees and management based on a commitment to providing superior value for employees (Gounaris, 2006). Acknowledging contact employees’ pivotal role within NSD (Melton and Hartline, 2010), we stress their motivation to participate to NSD. The adoption of IMO through the use of non-financial practices (i.e. recognition programs) increases contact employees’ perceptions of job-related value (Gounaris et al., 2010) and rewards behaviours beneficial for the firm (i.e. ideas generation), increasing thus, contact employees’ intrinsic motivation during NSD. In addition, financial internal marketing practices (i.e. performance incentives) can enhance contact employees’ extrinsic motivation levels (Lawler, 1973). Thus, IMO can enhance contact employee motivation to participate to NSD (P1).

Based on role theory, scholars highlight role ambiguity as a key ingredient of role stress and define it as a lack of understanding and clarifying about job responsibilities and knowing what is expected in terms of employees’ job
performance (Wang and Lin, 2012). Given that employees’ perceptions of their role is mainly shaped by the influences they perceive from supervisors, IMO through increased subordinates’ communication with their supervisor is anticipated to render NSD project requirements and priorities more explicitly communicated to all parties involved to NSD (Sanchez-Hernandez et al., 2011). Internal communication systems can effectively disseminate market-related info, reducing thus, employees’ perceptions of inadequate knowledge for their role requirement during FFE. Moreover, IMO entails a significant amount of empowerment (Gounaris, 2008), which helps employees to develop their own skills and enhance their self-efficacy levels (Hartline and Ferrell, 1996), reducing thus role ambiguity. Therefore, we propose that IMO can reduce contact employee role ambiguity within FFE (P2).

Despite the need for interfunctional coordination within the NSD front-end stages becomes substantial due to high task interdependencies, scholars rarely explore knowledge the role of management strategies for ensuring high communication quality during FFE (Storey and Hull, 2010). In this vein, we propose that IMO can enhance the pursuit of a personalization strategy within the FFE. Adopting a personalization strategy encourages employees to share their knowledge with other people in the organization through interpersonal interactions and personal relationships. IMO can enhance a personalization strategy by facilitating formal and informal info sharing and feedback between NSD participants from different organizational levels, ensuring high info use during NSD meetings. IMO through internal communications not only enhances the diffusion of new ideas by disseminating NSD knowledge across the firm (Vermeulen and Van der Aa, 2003), but also builds commitment for the project and reduces the amount of risk and uncertainty surrounding it (Lievens et al., 1999). Due to higher employee-supervisor direct info exchange, info bidirectionality provides an opportunity for both parties to increase the clarity of communication exchanges as well as the opportunity for healthy constructive discussion during FFE-related interactions. Internal marketing practices also add through the formation of a trust climate where employees feel safe to exchange info and combine it in new ways to create shared meanings (Nonaka, 1994). Therefore, we propose that IMO favours the pursuit of a personalization strategy during the FFE (P3).

Extant studies argue that a part of the innovation strategy execution relates to resolving conflicts within innovation teams (DeDreu, 2006), as conflicting priorities between participants from various functions often impair relationship quality during NSD (Vermeulen, 2004). Moreover, effective conflict management is associated with higher innovation team performance (Song et al., 2006). This study focuses on conflict resolution and define it as NSD participants’ perceptions that conflicts were resolved. Studies examining conflict at the team level ignore the resolution of the conflict episode (Somech et al., 2009), despite participants’ perceptions of unresolved conflicts during the FFE may produce destructive outcomes during later innovation stages due to conflict transformation effects (Greer et al., 2008). Based on the notion of internal customer which suggests that employees should consider themselves as members of a value chain and see the linkage between their actions and their impact on the ‘next customer’ of this chain (Gronroos, 1981), we propose that IMO can help NSD managers and participants to integrate more effectively conflicting views during innovation efforts and reach mutually satisfying solutions for all parties involved. As IMO shapes a working climate of psychological support and mutual trust (Johnston et al., 1990), it can affect participants’ understanding of the perspectives of other participants, increasing, thus, their perceptions of effective conflict resolution. Thus, IMO can enhance conflict resolution within the FFE (P4).

Employee integration refers to the degree to which employees between different functions cooperate in conducting specific NSD-related tasks and its advantage is that allows better dissemination and utilization of firm knowledge, so NSD participants are challenged in formulating new service concepts. Gupta and Rogers (1991) suggest that IM is a mechanism, which can lead to the integration of different functions to overcome the difficulties of getting new ideas adopted. Ahmed and Rafiq (2003) suggest that IM is able to reinforce aspects that determine quality of NSD process such as communication between employees at different levels, inter-functional integration and cooperative behaviour. Internal communication quality throughout the NSD project’s life cycle can reduce uncertainty (Souder and Moenaert, 1992) while cross functional training enhances participants’ better understanding of other participants’ perspectives. As integrating employees effectively constitutes a prerequisite for NSD success (Perks and Riihela, 2004), we propose that IMO will have a positive influence on employee integration within the FFE (P5).
Although high levels of FFE execution quality are associated with more successful back-end execution and higher innovation capabilities (Kim and Wilemon, 2002; Reid and de brentani, 2004), the identification of internal contingencies that enhance FFE execution quality has attracted little attention (Verworn et al., 2008; Poskela and Martinsuo, 2009). First, we illustrate the role of contact employees’ motivation for FFE execution quality as they can generate new ideas in the planning stage, provide invaluable market info during NSD interactions and facilitate the diffusion of market intelligence across various functions (Vermeulen and Van der Aa, 2003; Cadwallader et al., 2010). Contact employee extrinsic motivation can also enhance FFE execution quality due to the provision of performance incentives and bonuses associated with innovation results. Thus, we propose that contact employee motivation to participate in NSD can enhance FFE execution quality (P6).

As no previous studies have considered role ambiguity in innovation from the perspective of contact employee participation (Rodriguez-Escudero et al., 2010; Leung et al., 2010), we emphasize role ambiguity as a suppressor of FFE execution quality. Under conditions of high role ambiguity, boundary spanners that interact with different role senders for info exchange are likely to invest a lot of cognitive resources in seeking role clarification and reconciling conflicting demands instead of developing new customer knowledge (Onyemah, 2008). As role ambiguity increases, the ability of the employees to make accurate judgments decreases (Bagozzi, 1980), resulting thus, in a low level of outcome expectation in their performance within the FFE. This is understandable because clear goal setting in employees’ roles helps them pursue excellence and concentrate on attaining expected higher levels of performance (Smith, 2002). We propose that contact employee role ambiguity can reduce FFE execution quality (P7).

One issue needing further investigation within NSD front-stages is to explore how the use of different communication strategies can influence performance (Storey and Kahn, 2010). Despite the importance of a codification strategy for NSD proficiency (Storey and Kahn, 2010), the adoption of a personalization strategy which involves both formal (e.g., project meetings) and informal mechanisms (break conversations) will result in the sharing of tacit knowledge which is hard to articulate, acquire, and store within individuals without direct personal experience (Szulanski, 1996). A personalization strategy can enhance connectedness among functional units to ensure the effective use of the firm’s innovation competencies to engender radical outcomes (Atuahene-Gima, 2005). Its adoption can enhance employee integration as through interpersonal socialization NSD participants can enhance cross-functional understanding and combine individuals’ knowledge in new and different ways to provide new service concepts (Nonaka, 1994; Storey and Hull, 2010). Under such circumstances and given the particular FFE characteristics such as low formalization and less structured stages, a personalization strategy would enhance info exchange and use within cross-functional teams. The use of a personalization strategy will improve FFE execution quality (P8).

As FFE is a multidisciplinary process that demands info exchange and close collaboration, it relies heavily on the knowledge and skills of employees from different functions that participate in cross-functional teams (Meyer and de Tore, 1999). In fact, firms identified as having “best practices” in innovation activities employ cross-functional teams more extensively than other firms (Griffin, 1997). Effective employee integration is more critical in the FFE than to the back-end stages for two reasons. First, due to low formalization cross-functional teams are crucial so as to reduce process uncertainty (Moenaert et al., 1995); second, crucial decisions which determine later NSD stages the market opportunity, target customer and availability of resources have to be taken in the early stages of the process (Kim and Wilemon, 2002). However, our understanding of the relative importance of employee integration in the NSD front-end stages remains largely incomplete (Alam, 2012; Perks and Riihela, 2004). Thus, we hypothesize that higher employee integration will improve FFE execution quality (P9).

Although cross-functional teams have become a vital asset for NSD success (Froehle et al., 2000), not until recently scholars have begun to examine the role of NSD participants’ relationships for project success (De Jong and Vermeulen, 2003; Vermeulen, 2004). An important issue which remains under explored is how conflicts occurred within NSD teams can be effectively resolved and enhance conflict resolution, as evidence indicate that almost 60% of innovation projects entail some form of conflict (Souder, 1988). The importance of perceiving conflicts as fully resolved within NSD teams grounds on the fact that unless participants consider them as fully resolved, they may escalate conflict levels within back-end NSD stages and adopt provocative conflict behaviours instead of focusing on NSD team’s goal achievement. Moreover, their participation in parallel development teams may render them more prone to perceive task related disagreements as interpersonal clashes due to conflict transformation (Greer et al., 2008). Thus we propose that conflict resolution will enhance FFE execution quality (P10).
Political activity (PA) reflects participants’ tendency to further self- or functional interests at the expense of others in the organization (Kacmar and Baron, 1999). Political manoeuvring is anticipated to posit personal agendas ahead of innovation goals (De Clerq et al., 2008). Consequently, employee integration becomes difficult to achieve, as NSD participants often act as representatives of their own department within development teams perceiving common goals as incongruent (Vermeulen, 2004). In addition, conflict resolution can be affected as PA strengthens the negative impact of relationship conflicts on innovation performance (De Clerq et al., 2008). As a result, the decision making quality of FFE can be impaired due to the lack of effective info exchange between competing functions or due to the distortion of info exchange. Therefore, we propose that PA can suppress the impact of employee integration and conflict resolution on FFE execution quality (P11a-P11b).

3. Discussion

From a research perspective, the propositions put forward in this paper provide a first cut at considering which factors may be important to examine in further empirical studies investigating the FFE of service innovation. This conceptual paper adopts a dynamic perspective of the front-end stages of service innovation process and calls for more research regarding how service firms can effectively manage the FFE. A behavioural perspective of the FFE is introduced echoing the importance of intra-organizational contingencies for NSD success (Vermeulen, 2004). Addressing the role of IMO for NSD could provide another link into the IMO-organizational performance link, rendering, thus, IMO as a managerial philosophy that provides sustainable advantage not only through the just the performance of the front-line staff but also via the successful development of new services. Second, the role of behavioural intricacies during NSD interactions need to be further addressed as the importance of political activity and different conflict types still remains unchallenged (De Clercq et al., 2008; 2009). In overall, this paper is clearly a fruitful path of exploration ahead to help NSD project managers understand the importance of the FFE for overall new service development success. As the process of NSD is generally complex to define and articulate, there are several unique aspects of NSD that still remain uncharted in contrast to NPD. We hope that this discussion will provide research opportunities and nurture the provision of internal S/F factors of the FFE of service innovation.

References


