

Literature Review and Perspectives on Digital Customer Orientation in the Context of Digitization

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Abstract

With the advent of the digital era, the entrepreneurial environment has changed dramatically. Driven by demand and technological innovation, various types of platform enterprises have emerged and developed into a digital ecosystem dominated by core platform enterprises, with members of the industry evolving in a collaborative and mutually beneficial manner. For start-ups with "new entry deficiencies", only by further embracing the digital ecosystem can they make better use of complementary resources to achieve growth. Through a review of the classic literature on digital customer orientation at home and abroad, the concept, composition, measurement and application of digital customer orientation are systematically reviewed. The study shows that digital customer orientation is a concept different from customer orientation, a way for companies to provide real-time and customized customer experiences by embracing digital ecosystems, and that it plays a key role in the process of embracing digital ecosystems by start-ups. The shortcomings of digital customer orientation research are summarized and future research directions are proposed with the aim of promoting the further development of digital innovation research.

Keywords

Digital Customer Orientation; Start-Ups; Digital Ecosystems.

1. Introduction

With the advent of the digital era, the entrepreneurial environment has changed dramatically, driven by demand and technological innovation, various types of platform enterprises have emerged and developed into a digital ecosystem dominated by the core platform enterprises, with members of the industry evolving in a collaborative and mutually beneficial way. The report of the 20th Party Congress proposes to give full play to the amplifying, superimposing and multiplying effects of digital technology on economic development, promote the deep integration of the Internet, big data and artificial intelligence with industry, and grasp the opportunities of the era of digital economic development. In this context, the most important form of competition in the economy has gradually changed from competition between enterprises to competition between platforms and ecosystems. In order to be invincible in the competition, many enterprises have put the construction of ecosystems into a very prominent position, including Tencent, Alibaba, including a large number of well-known platform companies have put forward their ecosystem strategy. For start-ups with 'new entry deficiencies', only by further embracing the digital ecosystem can they make better use of complementary resources to achieve growth. How to stand on the shoulders of giants to embrace the digital ecosystem and meet customer needs in an open and symbiotic manner has become a source of competitive advantage for start-ups, especially digital natives.

Customer orientation reflects a company's strategic attitudes and choices towards its customer markets, determining the company's engagement in information gathering, dissemination and

response to better serve its customers, allowing the company to more precisely align customer needs in the value creation and customer engagement process. For example, a response to a search query on Google, a recommendation from Netflix, Amazon or Facebook aligns individual customer needs with increasing accuracy. The digital customer orientation view therefore suggests that companies offer products, services and customized solutions in real time, constantly adapting and tracking them in advance according to customer needs and behaviour, rather than responding passively. As ICTs increasingly mediate interactions between consumers, within firms and between firms and users, firms are able to create an omni-channel communication environment for their customers, enabling them to more accurately target customer needs as well as better serve customer preferences and enhance the customer's digital experience. At the same time, it is easy for organizations to gain real-time insights into each digital user by tracking the latest information about their customers' needs, and then proactively responding to them. However, research on digital customer orientation is still at an exploratory stage, with no consensus on its basic concepts and its relationship with start-up growth yet to be effectively revealed, and the scope of application of digital customer orientation is not yet clear.

2. Digital Customer Orientation

2.1. The Concept of Digital Customer Orientation

The term 'digital ecosystem' is gaining popularity in the academic and business lexicon as a result of the development of digital technologies and the dependencies between businesses that are affected by digital connectivity. This network of inter-dependencies generated by digital technologies disrupts the traditional entrepreneurial environment and has implications for the survival and growth of start-ups. Some scholars have focused on a resource-centred supply-side perspective, looking 'inward' and attempting to assess the heterogeneous resources or dynamic capabilities of start-ups (Barney, 1991; Eisenhardt and Martin, 2000; Makadok and Coff, 2002). However, limited resources are a major impediment to the growth of start-ups, and a number of management scholars studying innovation, entrepreneurship and strategy have begun to focus on the demand side of the value equation, where the demand-side perspective is orientated downstream of the product market, and the research focus is more on the dynamics and latent needs of the customer, with an emphasis on valuing the strategic importance of the customer (Priem et al., 2012). In the digital ecosystem context, based on the nature of digital products and digital services, start-ups' growth is increasingly influenced by the demand side, and they need to establish a new value proposition in order to compete effectively in the digital era. Digital customer orientation offers an alternative to creating a value advantage for start-up growth compared to an emphasis on resources. This has led to the necessity for new ventures to rely on digital customer-orientated value propositions to compete for scarce customer resources in order to respond to rapid changes in customer needs and thus gain a competitive advantage (Ghezzi et al., 2018). The openness and connectedness of digital technologies have led new ventures to place greater emphasis on stakeholder influence, and customers are important stakeholders. Therefore, as start-ups grow, they need to accurately identify customer needs with the help of digital technologies. Humphreys and Carpenter (2018) view the concept of 'customer orientation' as the understanding of customer needs and the delivery of the customer experience. Customer orientation strengthens the interaction and connection between start-ups and customers and is an indispensable factor in the growth of start-ups. Customer orientation motivates start-ups to collect and process customer data, identify unmet needs and anticipate potential needs (Van Le et al., 2019). As a result, digital ecosystems and digitization research have accelerated the emergence of digital customer orientation.

Digital Customer Orientation (DCO), first proposed by Kopalle and Kumar (2019), 'refers to the idea that firms provide customized and enriched experiences that are more real-time and based on customer feedback on usage, rather than the more passive "intercept" of asking customers for their feedback on a product or service experience feedback.' From this definition, it is clear that digital customer orientation is different from both proactive and responsive customer orientation in that it emphasizes in-use information from the customer, allowing the business to remain digitally relevant to the customer post-purchase and in-use. Therefore, the three interrelated concepts of 'digital customers, in-use information and digital experience' constitute a powerful explanation of digital customer orientation.

2.2. Components of Digital Customer Orientation

A digital customer is a customer who provides in-use information when consuming a product or service. In-use information is information that is available in real time at the time of consumption of a product or service and is characterized by ease of sharing, transient value and real-time insights; digital experience is the experience of participating in the use of information within an organization's digital ecosystem (Prahalad and Ramaswamy 2004). In-use information has three interdependent attributes: ease of sharing, real-time insights, and the ability to share information in real time. Real-time insights, and transient value. The three interdependent properties of in-use information therefore enable platform companies to leverage this information in their digital ecosystems to deliver digital experiences to digital customers.

2.3. Ways to Implement Digital Customer Orientation

Current research has touched upon the conceptualization of digital customer orientation in platform ecosystems and categorized the modes it encompasses, Sun Xinbo and Zhang Qingqiang (2021) revealed two different modes of digital customer orientation, Digital customer orientation complement and refinement (Digital customer orientation complement and Digital customer orientation refinement), and this difference is basically triggered by the difference in the establishment time of the focal firms in the platform ecosystem. The way in which companies implement DCO varies depending on the digital customer and the time of establishment of the company. For those companies that were established earlier, it takes longer to cultivate digital customers, revamp digital incentives, etc., so they usually adopt the DCO complement and gradually move from traditional CO to DCO. For those companies that were founded later, most of them grew up in the digital era. As a result, they can directly cultivate their digital customer base at the beginning of their inception and directly establish specific mechanisms for digital incentives in the platform ecosystem. Therefore, they usually adopt DCO refinement to continue expanding the boundaries and content of DCO. Kopalle and Kumar (2019) construct a roadmap for traditional firms to embrace the digital ecosystem, focusing on how traditional firms can develop digital customer orientation, but there is no analysis on how digital customer orientation affects firm outcomes. From this, it can be seen that digital customer orientation is an important factor influencing the growth of start-ups.

At present, the research of digital customer orientation is still in the rising period, which has attracted the attention of scholars at home and abroad, but the micro-acting mechanism of digital customer orientation in different contexts has not yet been opened, and the typicality of digital ecosystem contexts in particular needs to be further explored.

3. Influencing Factors of Digital Customer Orientation

Kopalle and Kumar (2019) identified three key factors that drive digital customer orientation, three interrelated factors that underpin how digital natives leverage their digital ecosystems for customer orientation, the three concepts are information-in-use, digital customer and

digital experience. In-use information is information that is available in real time as a product or service is being consumed and is characterized by ease of sharing, temporary value and real-time insights, Ramaswamy and Ozcan (2018) argue that in-use information is the basis for creating value through interactions with customers, and that start-ups are able to add value to their digital customers by utilizing it within their digital ecosystems to further enhance the user's of the digital experience. Ziggers and Henseler (2016) showed that customer orientation is critical in helping organizations to better understand customer needs, achieve sales growth and gain a competitive advantage. According to Guo and Han(2022), customer orientation helps digital new ventures to continuously interact with customers to identify changes in market demand, so that opportunities can be dynamically iterated on this basis. Based on the current development of modern digital technologies, business environments are turning into digital ecosystems in which the traditional inter-dependencies of firms are increasingly affected by digital connectivity, and there is now a greater emphasis on digital customer-orientated value propositions. In the digital ecosystem, start-ups promote communication and connection with customers through digital platforms, on the one hand, provide more customized and enriched digital experiences to increase customers' willingness to pay and thus improve business performance, on the other hand, through the dynamic mastery of digital customers' preferences, create and provide more value for digital customers, increase customer satisfaction and loyalty, and thus improve start-ups' and thus increase the unique competitive advantage of the start-up.

Digital customer orientation emphasizes the use of digital technology, the application of data resources, and in digital platforms, the value proposition of digital customer orientation promotes start-ups' focus on technology to further improve their digital capabilities. Annarelli (2021) define digital capabilities as enabling companies to broadly integrate digital assets and business resources and to leverage digital networks to innovate products, services and processes to achieve organizational learning and customer value. Heredia(2022) confirm that digital capabilities positively affect firm performance only through technological capabilities. Wang and Gu(2022) show that digital capabilities affect manufacturing firm performance through both internal and external pathways. Digital capabilities not only help firms to adapt to dynamic and complex changes in internal and external environments, but also provide a way for firms to expand the The depth and breadth of value creation is an important prerequisite for the source of sustainable competitive advantage. Based on existing research, it can be concluded that, on the one hand, digital capabilities help firms to create value and improve efficiency by using digital technologies in a customized service environment, and on the other hand, digital capabilities increase the possibilities for manufacturing firms to deliver value to their customers.

4. Future Research Outlook

This paper focuses on reviewing the research results on the concept, composition and realization of digital customer orientation and summarizing the current state of digital customer research. Literature research has found that most of the existing research focuses on how traditional enterprises embrace the digital ecosystem through digital customer orientation, and explores the dynamic process from customer orientation to digital customer orientation.

There are still the following shortcomings about the current research:

- 1) how start-ups can leverage digital customer orientation. Current research on digital customer orientation focuses on how customer orientation is transformed into digital customer orientation and how traditional enterprises can embrace digital ecosystems through digital customer orientation, and further research on digital customer orientation is scarce. In the future, further research on the impact of digital customer orientation on the growth of start-

ups can contribute to the theoretical understanding of digital customer orientation in the context of digital ecosystems.

2) How to quantify digital customer orientation. Most of the existing studies are based on the case study approach to get about how companies use digital customer orientation, and propose the corresponding concepts and research frameworks for traditional companies to understand how to build the ability to develop digital customer orientation. But there is no further research on the application of digital customer orientation, the future can be quantitative research on digital customer orientation affects the internal mechanism of enterprise growth, through quantitative research methods can be more intuitive to get the corresponding research results, improve the existing research gaps.

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