

IMPACT OF DIGITAL ERA ON ORGANIZATIONAL PERFORMANCE

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Abstract

The digital era is changing consistently the previous marketing scenarios and actual issues have to be addressed in order to close the capabilities gap created by digital innovations. Various authors have proposed different theories that cope with the issues brought out by the digitalization of the marketing channels and the subsequent increase in the volume of the digital data. This study aims in developing a proposition and theoretical framework through a reconceptualization and reframing of previous theoretical constructs from marketing literature. In a dynamic, fast changing, and data-rich environment, the resulting model offers insights about marketing processes and marketing capabilities needed to cope with digital era.

Key words: Digital era, organisational performance, environmental factors, technological factors, etc.

1. Introduction

The recent marketing literature widely recognizes that radical environmental and technological changes are transforming marketing scenarios. The main contemporary issues derived from that literature are: the exploding data volume; the new computer mediated environment or networked and pervasive information technology; and the customer touch-points and fragmentation of marketing channels. How to manage and make sense of the data and information overload derived from fragmented marketing channel and digital environment in order to comprehend and react to environmental changes has been common question tried to be answered in previous arguments. Marketing literature increasingly accentuates the presence of gaps in organizational and marketing capabilities and skills due to the technological and environmental changes and especially in digital market context it does call for coping with these issues. This study focuses on the business–customer and business–business interactions in order to propose a theoretical framework that takes both the business–customer and business–business interactions into consideration and the insights from previous literature and at the same time tries to manage with these more recent issues caused by digitalized marketplace.

In business–customer interactions, “the role of information has become more explicit in this framework” and extending the strategic capabilities framework to digital contexts due to enhanced customer and consumer visibility, which permits the business to collect and manage, detailed customer information. The theoretical and traditional roots of marketing capabilities based resource based view had to redefine due the high rate environmental changes in digital era. But when business operates in high-velocity market they have to develop dynamic capabilities in order to obtain at least a series of short-lived competitive advantages or even a sustainable competitive advantage. To obtain at least a

series of short-lived competitive advantages or even a sustainable competitive advantage there is an increasing attention is given by business in theoretically framing and studying marketing capabilities as part of dynamic capabilities as part of dynamic capabilities perspective, say in the studies on dynamic marketing capabilities framework. The aim of dynamic marketing capabilities framework is to deepen the understanding of relations between marketing and dynamic capabilities and the role of marketing resources and capabilities in developing a sustainable competitive advantage. What both the traditional dynamic capabilities perspective and the more recent dynamic marketing capabilities framework have in common is a concern toward the importance of developing market knowledge to sense and seize, or respond to, new opportunities. Dynamic marketing capabilities are specifically aimed at developing, releasing and integrating market knowledge. Business needs sensing capabilities in order to discover new opportunities and seizing capabilities to exploit them. Organizations can sense new opportunity toward a “scanning, creation, learning, and interpretive activity” and they need “differential access to existing information” because new information and new knowledge can create opportunities.

The development of market knowledge involves interpreting available information in whatever form it appears and managers need real-time information, especially in high-velocity market, to “adjust their actions since problems and opportunities are spotted”. In the actual marketing scenario, the information coming from digital data are becoming central in decision making process, the volume of business related digital data is ever-increasing, it comes from dispersed sources, with high-level of granularity and it is difficult to analyze. But given that attention of managers is limited and they cannot focus on all the possible issues and problems, research has to deepen the question about which types of information and knowledge have to be taken into consideration to achieve competitive advantage. Both dynamic capabilities literature and market and strategic orientation literature agree on at least three main issues that organizations have to take into consideration: customers, competitors and technological developments. Business has to accumulate and filter information scanning and monitoring internal and external technological developments customer needs and competitor activity. In the literature reviewed for this study emerges that both strategic/market orientation literature already contemplate different theoretical constructs that explain the relations among high information processing, market knowledge, market responsiveness and organizational performance. What is missing is a framework that reorganizes and keeps up-to-date these theoretical constructs to respond to the call for adjourning the “strategic capabilities framework to digital contexts” and also take into consideration the initially mentioned issues of the so called digital revolution.

2. Objectives of the study

1. To develop a theoretical framework that could explain how the digitalization of marketing channels and the consequent massive explosion of real-time data can impact on organizational performance,
2. Identify the specific dynamic capabilities involved and also the processes that act as micro foundations of dynamic capability.
3. To develop a set of theoretical propositions that can be tested in future empirical research.

3. Increasing volume of digital data and organizational knowledge

The great expansion of internet, mobile and social media technologies, say the “digital era”, has created a massive volume of digital data available to business, but this “deluge of data” is challenging the traditional marketing capabilities. The first step to theoretically reframe the strategic capabilities framework is to define the characteristics that distinguish the data coming from the marketing “digital revolution” from the previous traditional source of information. The data characteristics over which both digital and marketing literature agree are: the ever increasing volume; the fine grained nature of the data; the different digital sources they come from, such as web, social media and mobile applications and finally; and they are real time produced and potentially analysable real time. Real time digital data permit to deploy real time data analytics and as a consequence a real time decision making. On the other hand, in presence of a massive amount of data, organizations risk the so called “paralysis through analysis” due to the overload of data and analysis that slow down decision making processes. But if organizations deploy proper analytics they can make sense of data and use them strategically moreover recent studies have empirically tested the positive impact of analytics over business performance. What emerges from organizational learning theory is that the availability of information does not necessarily increase organizational performance. Information processing abilities are critical due to the increasing volume of available market data and these abilities are valuable in order to obtain a competitive advantage because they are difficult to achieve and to imitate. For this reason, the concept of organizational knowledge processes is introduced in the theoretical framework. The technological opportunism concept is developed in such a way that it is defined as the “sense-and-respond capability of business with respect to new technologies”. Technological opportunism concept is conceived, from its origin, as constituted by two distinct capabilities: technology-sensing capability, or the “organization’s ability to acquire knowledge about and understand new technology development”, and the technology-response capability, which is the “organization’s willingness and ability to respond to the new technologies it senses in its environment”.

4. Organizational knowledge processes and market performance

The idea that market related information processing, say market intelligence is strongly connected with the business' market responsiveness dates back to seminal studies on market orientation which include the concept of responsiveness inside the market orientation construct itself. Even if different studies have shown a direct positive effect of customer and competitor knowledge process over product innovation and even a slightly significant direct effect of knowledge processes over business performance, most of the marketing and digital literature agrees on the mediating role of organizational responsiveness. Responsiveness is the action taken in response to intelligence that is generated and disseminated. In the framing of organizational responsiveness, in order to consider the dimension of the strategic orientation framework, say the technological changes, the study refers to the literature on technological opportunism. Given the above mentioned theoretical statements and empirical verifications the first three propositions can be stated:

Proposition 1: The use of customer related digital real-time data has a positive impact over customer responsiveness mediated by customer knowledge process.

Proposition 2: The use of competitor related digital real-time data has a positive impact over competitor responsiveness mediated by competitor knowledge process.

Proposition 3: The use of technology related digital real-time data has a positive impact over technology responsiveness mediated by technology knowledge process.

The last step for developing a comprehensive theoretical framework is to advance propositions that clarify the impact of the previously mentioned construct over organizational performance. As Dickson suggests the variance in responsiveness and the exploit of knowledge and response imperfection can be sources of competitive advantage. Also the dynamic capabilities literature has emphasized the importance of being responsive to new opportunities and changes in order to gain competitive advantage. Then the positive effect of organizational responsiveness over performance is tested in both strategic management and marketing literature. Different empirical studies have shown that customer responsiveness has a positive impact on market performance. Recently other studies have empirically verified in more general terms the relation among organizational responsiveness and competitive advantage finding a positive and consistent relationship. This study tries to maintain the same principle and coherence in the following propositions about the relationship of organizational responsiveness and performance.

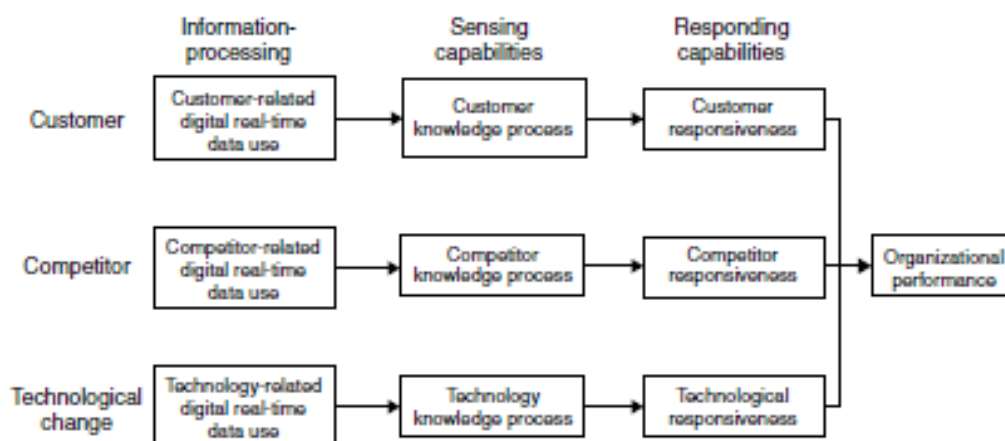


Fig. 1 – The sense and respond capabilities model in the digital era.

Proposition 4: Customer responsiveness is positively related with organizational performance.

Proposition 5: Competitor responsiveness is positively related with organizational performance.

Proposition 6: Technological changes responsiveness is positively related with organizational performance.

All the developed theoretical proposition can be visualized in the above figure that represents a hypothesis of the model which can be tested in future research. The model shows in the horizontal axis the different organizational features considered and the vertical axis displays the three strategic orientation dimensions considered.

5. Conclusion

After approximately forty years from the seminal papers about strategic, market orientation and organisational learning theory have been proposed, some of these concepts developed in that historical period could still be in actual context valid yardsticks but they need to be reframed to answer to the recent trends of closing the capabilities gap in this digital era. This study shows that reframing and redefining some of historical concepts lead to theoretically supported propositions that can answer also to the issues of the digital era. To deepen the knowledge about how this “deluge of [digital] data” is processed inside the organizations to gain useful insights about the external environment, especially how organizations filter and select the most consistent data and how highly automated and algorithmic analytics influence these processes. This study brings out some specific processes and capabilities that undergird sense and seizing dynamic capabilities giving the chance to empirically test with future research the impact of these specific micro foundations over organizational performance and competitive advantage potentially contributing to the debate on micro foundations of dynamic capabilities.

6. Reference

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