The Impact of Digital Advancements and Their Influence on Marketing, Value Chains, and Business Models

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Although good mastery of digital innovations can be highly advantageous in today's environment, as business models and industries are changing rapidly due to digital innovations, there are significant gaps in the literature on digital innovations. By defining terms and examining the particulars of this new field of study, we add to the body of literature. The impact of digital innovation on marketing, value chain, and business models is then covered, with particular attention paid to conflicts and marketing difficulties, value chain dynamics, and business model evolutions. We offer recommendations for more research in our conclusion.
INTRODUCTION

Major organizations are embracing digital transformation and going through organizational change all across the world. According to Yoo, Henfridsson, and Lyttinen (2010), digital innovations are creative product combinations that combine digital and physical elements in a new way, giving businesses a competitive edge over their rivals. In order to generate value and enhance organizational performance, digitalization entails the application of cutting-edge business models and digital technologies; consequently, digital transformations alter value chains and business models and enhance a company's reputation (Anderson, 2014).

Three benefits can arise from effectively mastering digital innovations: enhanced customer experience; optimized operations; and new company opportunities (Fitzgerald, Kruschwitz, Bonnet, & Welch, 2013). Companies are achieving the greatest results through automation in integrating digital technologies into operations and customer experience. Fitzgerald et al. (2013) suggest that a digital transformation might originate with customers, with the enhancement of the customer experience serving as a primary catalyst for change. The rise of the tech-savvy, connected consumer has altered consumer expectations of businesses. Digital advances have brought about a profound transformation in the way that people search for information, purchase, consume, discuss, and share their experiences with products and services. Digital advances present new avenues for corporations to reach, inform, engage, sell to, learn about, and support their customers (Lamberton & Stephen, 2015, p. 146).

Industries and business models are shifting due to digital developments. For example, contactless payments have completely changed the banking industry. Personalized premiums are being introduced by smart, connected objects, which are having an impact on the insurance industry. Furthermore, a
A vast amount of client data is gathered as a result of digital developments. This challenges consumers' faith in new innovations and transforms marketing strategies, raising privacy concerns because many innovative products can only fully realize their value if they rely on personal information from customers (Miltgen, Henseler, Gelhard, & Popovič, 2016).

Understanding how consumers can acquire and accept digital advances is very important, since the adoption of these technologies is linked to high levels of uncertainty for potential customers. According to Kuester, Konya-Baumbach, and Schuhmacher (2018), the main goals of e-innovation go-to-market strategy design should be to convey usability and trustworthiness. In their discussion of the novel business model of a digital library, Laifi and Josserand (2016) demonstrate how, in order for digital innovations to be successfully implemented, the industry's players must legitimate them.

Even with these recent developments, the literature on digital innovation has two main problems: first, from a theoretical perspective, the effects of digital innovations on marketing, value chains, and business models are still primarily examined using theories and concepts that were created prior to the digital revolution (Elia, Margherita, & Petti, 2016); second, from a managerial perspective, Lamberton and Stephen (2015) point out multiple areas where practice and academia diverge. In order to better understand, analyze, and theorize how digital innovations arise, create value, enhance customer experience, move to market, are embraced by customers, and impact the value chain, CJAS therefore solicited contributions.

DIGITAL INNOVATIONS: A NEW FIELD OF STUDY

Definition and Specification

The idea of "digital innovation" has generated a lot of interest recently, both from practitioners and scholars. In 2018, Scopus found 180 relevant articles using two keywords, compared to just 10 in 2011. Although there is a growing body of study on digital innovation, it is still somewhat nebulous; instead, what we have is an emergent corpus of theory and practice that pulls from a variety of social scientific disciplines. Nonetheless, in order to better guide scholarly research and practice (Nylén & Holmström, 2015), there are generally held goals to gradually establish theoretical and conceptual coherence in digital innovation (Nambisan, Lyytinen, Majchrzak, & Song, 2017).

Therefore, it is essential to learn more about the more detailed processes of this transition and to further develop the theorization of digital innovation activities. According to Dörner and Edelman (2015), citing McKinsey's definition, digital is more about how firms operate than it is about a process. Three concepts arise from this: generating value; streamlining operations that have an immediate impact on the customer experience; and devising strategies to bolster all endeavors.
According to Nambisan et al. (2017), digital innovation is the application of digital technology either as a catalyst for innovation or as a byproduct of it. Digital technologies are the foundation of many innovations that enable people to produce, acquire, distribute, and consume information at a level and value never before possible (Pournaras & Lazakidou, 2008). Additionally, the creation of digital information is becoming a more important way for businesses to create value. Hardware goods may have a significant or weak correlation with this numerical value (Brynjolfsson & McAfee, 2014). Specifically, they propose the conceptual framework of value spaces as a tool to better understand the creation and capture of value in digital innovation. Henfridsson, Nandhakumar, Scarbrough, and Panourgias (2018) approach digital innovation as the result of activities by which a set of digital resources are recombined in their design and use through connections between valuable spaces.

Relying on theory as a statement of concepts and their interrelations that shows how and/or why a phenomenon occurs (Corley & Gioia, 2011, p. 12) will be essential to enhancing research in digital innovation in the years to come. Some companies, like Airbnb, Amazon, Google, or Facebook, have achieved a turnover in the billions of dollars. However, Svahn, Mathiassen, Lindgren, and Kane (2017) and Westerman and Bonnet (2015) point out that the opportunity to innovate by digitalizing products and offering digital services is proving to be a challenge for well-established companies. In particular, we contend that conceptual models must be created in order to improve knowledge of the unique characteristics, dynamics, and development of digital innovations; the intricacy of the socio-material interactions among the actors involved in these innovations; the phenomenon of digital entrepreneurship (Sahut, Landoli, & Teulon, 2019); production processes and the organizational structures they produce; and the effects of digital innovations on marketing, the value chain, and business models.

DIGITAL INNOVATION’S EFFECT ON VALUE CHAINS, MARKETING, AND BUSINESS MODELS

Conflicts and Marketing Obstacles

The digital transformation of enterprises is a result of digital innovations (Serval, 2018); we cannot undervalue this transformation as a strategic imperative that necessitates accelerating internal company investments in the knowledge, ownership, and application of digital innovations. Customers' expectations, interests, and behaviors have drastically changed as a result of the widespread use of mobile devices and the Internet in daily life. The emergence of disruptive technologies like blockchain, augmented reality, virtual reality, connected things, AI, VR, and driverless cars is another factor. Human behavior will continue to shift due to innovations.

Consumers go from the status quo to the modern. According to Brandt and Henning (2002), digital changes in society have made it possible for people
to conduct numerous real-time transactions, connect with each other across time and space, and access a wide range of information globally. This innovation enables users to produce and distribute their own content over a wider web network rather than merely downloading or looking for static material. The relationships that these digital advances provide between users, however, may mean that managers may not fully comprehend the customers using them.

Digital transformation is primarily driven by an understanding of how consumer behavior and preferences are evolving. However, only about one-third of businesses have fully mapped their clients' journeys to define and prioritize digital transformation strategies, and less than half of them research how mobile devices affect consumers. According to Schultz and Peltier (2013), most businesses have found that their biggest challenge has not been creating and launching digital channels, but rather improving their usability and attractiveness to customers. As it happens, digital transformation is a complicated topic that has an impact on most or all of a company's operations. For this change to be successful, managers must strike a balance between resource exploration and exploitation in order to achieve the anticipated organizational agility. The growing digitalization presents substantial hurdles for marketing managers. They are dealing with markets that are out of their control and are becoming more complex and nimble. Therefore, businesses must comprehend these developments and know how to respond to them.

In this environment, businesses face tremendous challenges as a result of the digital transformation in society at large and specifically in marketing. The majority of the marketing literature now in publication has examined the digital revolution's effects philosophically. There are several attempts to understand this issue, and authors are genuinely eager to investigate how digital innovation affects marketing, but it is difficult to come to a consensus that would permit generalizations. Furthermore, the narrow focus of the topics discussed and the diversity of the research domains contribute to a limited comprehension of the effects of digital innovation on marketing. Examples include research on how user-generated material affects the generation of shareholder value (Tirunillai & Tellis, 2012), models for analyzing big data news (Feit, Wang, Bradlow, & Fader, 2013), and the Fader and Winer special issue of Marketing Science (2012). Nonetheless, this work has allowed for a greater understanding of how digital innovation affects marketing as well as the identification of the main obstacles to this change. In keeping with this research, Leeflang, Verhoef, Dahlström, and Freundt (2014) provide three more ways to investigate the conflicts in marketing brought on by digital transformation. The writers emphasize that these conflicts or difficulties might be seen as opportunities or dangers depending on how they are viewed. They are divided into three groups: organization and capabilities; go-to-market operations
and execution; and business strategy and customer knowledge.

The Chain of Values

According to Henfridsson et al. (2014) and Yoo et al. (2012), the digitalization of innovation puts traditional value-creation theories to the test, necessitating the development of new theories and alternative ideas about value creation. In fact, non-linear distributed control and dynamic processes in networked settings are what generate the value of digital innovation, as opposed to a traditional value chain that is often seen in traditional businesses (Boland Jr., Lyttinen, & Yoo, 2007; Westergren & Holmström, 2012). Moreover, digitalization—the encoding of analog information in digital format—is at the core of digital innovation (Tilson, Lyttinen, & Sorensen, 2010; Yoo et al., 2012). Physical and digital technologies are now integrated in formerly non-digital products like cameras (Tripsas, 2009), magazines (Nylén, Holmström, & Lyttinen, 2014), phones (Ghazawneh & Henfridsson, 2013), and automobiles (Svahn et al., 2017) thanks to digitalization. These digitalized devices can offer a far wider range of functionality than non-digital products because of advancements in digital technology.

Fichman, Dos Santos, and Zheng (2014) depend on the investigation of the relationship between digital innovation configurations and value generation to highlight these possibilities:

1) Acknowledging the intricacy of sociomaterial connections within digital innovation, formulate explanations for it. For instance, Jonsson, Mathiassen, and Holmström (2018) examine how a dispersed network of employees chooses when and how to repair equipment by utilizing a diverse portfolio of digital technologies.

2) Provide definitions of digital innovation that take into account the unique features of digital technology. Nylén et al. (2014), for instance, investigate how a media corporation uses digital innovations to enhance consumer experience and revitalize an e-magazine.

3) Provide an oscillation between the specific and the generic to explain digital innovation. Without drawing any broad conclusions, the majority of empirical research on digital innovation to date offers unduly detailed empirical explanations of the phenomenon. This leads to inconsistent and fragmented research findings.

Digital Innovations' Effect on the Business Model

Although the idea of the business model (BM) was first proposed in the 1960s (Sahut et al., 2013), its rise in popularity coincided with the digital economy. With the advent of e-commerce in the 1990s, electronic business models (eBM) and digital BM in the contemporary digital economy marked the beginning of the mainstreaming of BM literature (Blank, 2013; Osterwalder & Pigneur, 2010; Teece, 2018).
The ability of the organization to conduct business with its stakeholders is determined by a system of interconnected and interdependent activities that is known as the business model. Put differently, an enterprise business model is a system of specialized actions designed to meet the perceived needs of the market. It outlines the components and their relationships, or, as partners identify the activities, the ways in which those activities are tied to one another. A company's business system is made up of three design elements: governance, structure, and content. Modifying any one of these components will alter the model as a whole. It is an innovation of the business model if the new model is new to the globe as well as new to the company. The choice of tasks to be completed constitutes the content of an activity system; it stands for the what. The structure, often known as the comment, explains the relationships between the actions and their sequence. According to Schallmo, Williams, and Boardman (2017), governance is the who of the activity system—the party carrying out the activities.

When a new business model is well-thought-out, it can benefit suppliers, partners, and customers alike. Since the business model outlines a company's relationship to its ecosystem (consisting of agents, customers, suppliers, institutions, and so forth), designing it is one of the most important decisions that entrepreneurs and managers have to make. Actors who were previously unconnected can be reunited or connected in novel ways with one another.

Having said that, current research is less concerned with the new business models that result from the integration of these technological advancements and more with the advancement of technology. Furthermore, there are numerous examples from the recent past of businesses who were unable to adapt to the new digital world. For example, the inability of the movie rental company Blockbuster LLC to quickly create and implement a new digital business model was a major factor in its bankruptcy (El Kalak & Hudson, 2016). Additionally, the new industrial paradigm brought about by society's digital transformation is also changing the ways in which value is created today because it necessitates changes in productive processes and technological advancements (Arnold, Kiel, & Voigt, 2017; Bauer, Hämmerle, Schlund, & Vocke, 2015). These changes can result in more supportive work environments, better customer
interactions, or the introduction of new products and services. This necessitates reconsidering business models as a concept.

The business model approach has its roots in strategy, but since a business model is a new venture's expected method of producing digital value, it is pertinent to the literature on entrepreneurship and innovation. The increased flexibility that digital technologies provide has made the concept of business models relevant in the fields of strategy and entrepreneurship. These technologies allow for the coordination of the several stages and phases of a firm's value creation process. This makes a business model canvas similar to a more traditional value-chain model, which was quite common in the pre-digital era, but with digital enhancements.

Any organization, no matter how big or little, digital or not, can create a business canvas, but because digital technologies can help implement innovations and one or more of a BM's building blocks in a variety of ways, different BMs are frequently feasible. For instance, the flexibility provided by online access and payments considerably enhances the adoption of various revenue models, such as the "freemium" model or subscription-based models. The availability of several online resources opens up different options for how communication channels might be set up. Value production can be divided and distributed across several actors in more ways thanks to the decrease in transaction costs enabled by digital collaboration.

Lastly, a study stream centered on digital BMs is beginning to take shape (Margiono, Zolin, & Chang, 2018; Richter, Kraus, Brem, Durst, & Giselbrecht, 2017). This research is based on the characterization of new BM typologies made possible by digitalization as well as a discussion of the difficulties they face. This research, in particular, demonstrates how digitalization is forcing businesses to alter their business models along two critical axes: first, the understanding of customer needs, as digital technologies enable the discovery of customers' intrinsic motivations in a world where consumption is increasingly motivated by self-expression rather than just gathering demographic information and past purchases (Pariser, 2011); and the second dimension suggests switching from a network orientation that is based on a web of relationships to a regulated value-chain orientation. The upcoming generation of companies and entrepreneurs will need to develop in these new value creation dimensions.

What's in this Special Issue

This special edition of the Canadian Journal of Administrative Sciences (CJAS) compiles pertinent pieces about marketing from the standpoint of digital value creation. Our first goal was to concentrate specifically on the ways in which the development and use of digital information influence the actions of entrepreneurs and the emergence of new businesses.
A topical open request for papers led to the selection of the pieces in this special edition. The standard CJAS review processes were applied to those who had positive assessments. The items that are offered here have successfully completed this procedure. The chosen articles, as a result of this selection process, do not correspond to every research stream found in our review of this burgeoning literature; rather, they further knowledge of digitalization and its difficulties. The articles and their contributions to the theme and viewpoints of this special issue are briefly introduced for each one in the sections that follow.

In their contribution "Claiming a family brand identity: The semiotics of website storytelling," Ramadani, Canziani, Welsh, and Dana highlight the importance of family as a primary communication goal in narrative. By analyzing winery websites, they add to the body of research by revealing the ways in which companies are expressing their family brand identities. According to their findings, website texts make three statements that are essential to the development of family brand identities. The writers talk about the usefulness of it.

"Exploring consumer attitudes to online collaborative consumption: A typology of collaborative consumer profiles" is a presentation by Hallem, Ben Arfi, and Teulon. The authors of this research observe that peer networks which allow peers to interact, communicate, and even provide services to one another through digital sharing platforms are strengthened by online collaborative consumption. This study investigates the driving forces and impediments to collaborative consumption through a qualitative approach. The authors then create a typology of consumer profiles for collaborative consumption and determine which kind of online sharing platform is most suited for each profile. The results show four distinct consumer profiles for collaborative consumption: pragmatists, committed, intermittent, and skeptical. These profiles show distinct preferences for various types of online sharing platforms.

"How mobile technologies support business models: Case study-based empirical analysis" is provided by Peris-Ortiz, Devece, and Hikkerova. According to the writers, mobile technologies have increased IT system connectivity to the point where it is now possible for objects and people to be constantly connected. They point out that the quantity of data that businesses own has grown dramatically, primarily as a result of geolocation and the wide range of sensors built into mobile devices. Not only can this data be utilized to improve operations and procedures in the corporate world, but it can also be leveraged to develop new company models. The authors evaluate mobile technology as facilitating activity shifts while concentrating on business models. They take into account what makes mobile technology unique and look at how they may help with various business operations. Through a study employing Fuzzy-Set Qualitative Comparative Analysis (FSQCA) on thirty cases from various industries, they are able to determine the success elements of mobile technology for several core
tasks. The findings demonstrate that when various mobile technology projects align with the business strategy, they offer a competitive advantage.

IN THE DIRECTION OF UPCOMING STUDIES ON DIGITAL INNOVATION CONCERNS

The effect of digital innovation on marketing was covered previously. Each of the essays in this special issue makes a unique contribution to the body of literature. All in all, this inspires us to pursue more investigation.

We concur that further research, motivated by the Ramadani et al. article, might examine the effectiveness of text-based stories in comparison to alternative online storytelling formats, like family stories that are narrated on video and placed on the company website. Consistency could be the subject of future investigation as the paper suggests. To draw the conclusion that certain companies are purposefully directing the creation of a family-brand image through the methodical application of online family-identity-based story elements is not supported by the Ramadani et al. article alone. We suggest that more research could be conducted in the future.

Future study may utilize quantitative approaches to test ideas presented in the Hallem et al. article because it is a qualitative work. Making generalizations could lead to new lines of inquiry. Similarly, a bigger sample size than could be studied quantitatively using case studies in Peris-Ortiz et al.'s work could be studied in future research.

REFERENCES


