

INFLUENCE OF DIGITAL MARKETING ON INCUMBENT FIRM IN BRAND RECOGNITION AND FORMING BENCHMARK IN THE MARKET

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Combining extant literature with insights from the case, we argue that incumbent firms face four competing concerns—capability (existing versus requisite), focus (product versus process), collaboration (internal versus external), and governance (control versus flexibility)—and that these concerns are systemically interrelated. Past research provides instructive yet incomplete answers as to how incumbent firms can address competing concerns as they embrace digital innovation. In particular, it offers only partial explanations of why different concerns emerge, how they manifest, and how firms can manage them.

KEYWORDS :- INCUMBENT FIRMS, DIGITAL INNOVATION.

ABSTRACT

Incumbent firms are often thought to focus on incremental innovations and only respond to a major technological change once its impact on established markets and/or dominant designs becomes clear. We argue, however, that incumbent firms have many reasons to proactively invent early in cycles of technological change. Our interest is in the strategies that allow incumbents to be successful in this endeavor during the infancy of an emerging field—the period before it is clear how the field will affect dominant designs. Our evidence counters the stereotypical view that incumbent firms play a passive role in major technological changes by adhering to incremental inventions in the existing dominant designs. Rather, we find significant inventions by incumbents outside the existing dominant designs and relate their success to their willingness to search novel areas, explore scientific knowledge in the public domain, and form alliances with a balanced portfolio of partners.

INTRODUCTION

In this chapter, we introduce the reader to the subject of what this study aims to explore. We provide you with insight towards the concepts of influence of digital marketing on incumbent firm in brand recognition and forming benchmark in the market. After that, we introduce you to the problem background of the issue and argue for its relevance to the field. We highlight what the previous research has said and the gaps that exist, and how we intend to fill some of those gaps. Finally, we conclude this chapter by stating our research questions and purpose of the research.

As incumbent firms embed digital technologies into both products and innovation processes they are forced to break away from established innovation paths (Henfridsson et al. 2014; Henfridsson and Yoo 2014). Tripsas (2009) suggests that firms must shift their identity as digital technologies intertwine with the routines, procedures, and beliefs of key constituents. Lee and Berente (2012) argue that they must go beyond institutionalized architectural thinking and adopt a systems integration perspective to reshape

their product development. Drawing on received empirical studies across different industries, we synthesize four competing concerns incumbent firms face as they embrace digital innovation .

LITERATURE REVIEW

Fredrik Svahn, Lars Mathiassen, Rikard Lindgren(March 2017), as per their study they have focused on incumbent firms, they have mentioned four competing concerns in digital innovation and indicated the conceptual origins of these concerns in digital innovation research. They have showed empirically how and why they differentiate and interrelate, and demonstrated their relations to the more general literature in the field. Finally, they argued that managers must deliberately manage these concerns cohesively to embrace digital innovation. Our main contribution to the extant literature, which recognizes these four concerns separately, is an awareness of their individual trajectories, joint emergence, and multifaceted integration. Their analyses identified the contours of the systemic interrelating and cohesive management that corroborate and go beyond insights from available intellectual tools. We complement their work by explicating the linkage between systemic interrelating and the building of generative capability. We suggest that a sustainable design vision is at the heart of managerial intervention , whereas prior research depicts digital innovation as an emergent process wherein deliberate managerial intervention can not help avoid unpredictable outcomes. Our research paves the way for further research to uncover empirical patterns and intellectual tools for understanding and managing the competing concerns incumbent firms face as they embrace digital innovation. Such research could build on our study of car connectivity at Volvo Cars and draw on alternative theoretical framings to further explore the manifestation and management of competing concerns.

Innovation capability: existing versus requisite.

Firms must develop new capabilities without jeopardizing existing product innovation practices. This creates tensions between employees who seek to bring about change and those whose capabilities have become core rigidities. Such rigidities cause competency traps, inhibiting effective responses to digital options.

Innovation focus: product versus process.

Firms must strike a balance between developing new design and management processes and leveraging digital technology in products and services. For managers, this dilemma creates challenges such as conflicting time horizons and resource distribution across means–ends.

• ***Innovation collaboration: internal versus external.***

Firms must develop the skills and relationships of the people operating within internal work arrangements while also engaging external partners and resources. Focusing internally, managers might overlook important opportunities for boundary-spanning value creation; focusing externally, they challenge the equilibrium of internal work arrangements.

• ***Innovation governance: control versus flexibility.***

Firms must develop managerial practices and systems that recognize creativity and differentiation at the expense of prevailing authority structures and integration arrangements. Accordingly, managers must negotiate a balance between control and flexibility to afford exploration of digital options. Existing studies provide few concrete

answers as to how incumbent firms can address these competing concerns. In particular, because the four concerns have never been investigated in the same digital innovation context, we have limited knowledge to explain how they emerge, manifest, and interrelate, and how firms can manage them. Our research note presents a detailed case study of Volvo Car Corporation (Volvo Cars), which first experimented with telematics solutions in the late 1990s to reinforce its safety agenda. These early attempts to connect a car with an external infrastructure were technologically and functionally feasible, but covering associated costs for specific services proved difficult. In 2008, Apple's iOS and Google's Android gained momentum, which triggered the automotive industry to rethink car connectivity vis-à-vis the implications these platforms had for consumer electronics. Volvo Cars made connected cars a strategic focus area in 2010. We had the opportunity to follow this initiative from its formal initiation to the introduction of the first products in 2014. The Appendix offers a description of our approach to this engaged scholarship.

Establishing the Innovation Hub

In May 2010, Volvo Cars' executive team discussed how to kick-start implementation of the vision. The smartphone trend suggested car connectivity would render a new innovation focus. In contrast to pushing well-defined, incrementally improved product attributes to market through model year facelifts, a connected car had to be designed for continuous evolution across its lifetime (*product versus process focus*). To focus on means rather than ends, Volvo Cars had to build new capability for cross-fertilizing its innovation environments. However, that would require the automaker to break away from its conventional practices—which strictly applied

separation of labor and specialization—to reinforce incremental, component-based innovation. To address these competing concerns (*existing versus requisite capabilities*), the executive team established the Connectivity Hub. A manager with innovation experience in various areas, who eventually became the Hub's director, said,

The main job was to establish a new network that didn't reflect the existing organization, but the different stakeholders expected to be involved in the design or use of connected cars.... The Hub was an opportunity to bring different parts of the firm to the same table. Before, we didn't have an integrated forum where we could discuss those things.

By the end of 2010, the Hub included members from R&D, Global Offers, Global Marketing, Accessories, IT, Design, Product Strategy, and Customer Service (see Table 2). Hub members were updated on automotive and connectivity trends, and they were willing to critically reflecting upon existing norms and practices. Despite its promising configuration, the director was aware the Hub also needed strong top management support. He recalled that the CEO felt personal commitment to car connectivity, while parts of the executive team (particularly the finance people) largely perceived it as a high-risk, low-return investment. Thus, the Hub director encouraged further top-level commitment by sharing information at executive team meetings and by including a vice president of the executive team as member of the Hub. Volvo Cars soon understood it could not realize the connected car vision through an external subsidiary. Instead, it required careful internal management of the competing concerns between existing practices and requisite new capabilities. To prevent the Hub from evolving into a rival organization (potentially causing domestic turbulence), it was set up as a transient initiative and dissolved in 2012 when it had gained enough momentum to be self-sustaining.

Engaging Internal Stakeholders

The Hub orchestrated a broad internal debate about how to develop new innovation capabilities for connected cars. Initially, this created substantial pushback within the organization, and the uncertainty that followed spawned frustration and disenchantment among Hub members. As a product marketing manager put it,

People think you're nagging: "Here he is again with his mantras. What's coming out of it?" Unless people accept this kind of conceptual thinking, it's like a dialogue among the deaf.

According to the Hub director, resistance was particularly strong among middle managers, who felt trapped between long-term visions requiring novel capabilities and short-term commitments related to existing practices. Volvo Cars' prevailing product focus made these managers ask about the specific functions that connectivity would render and when they would become integral parts of new cars. Unable to provide specific and adequate answers, however, the Hub members' efforts to focus on generation of functionality fell on deaf ears (*product versus process focus*). In response, they had to develop a more persuasive rhetoric for the connected car initiative, as the Hub director explicated,

The main problem is that we believe in this [though we lack solid arguments]! The question is: Did Google and others doing similar things see the revenue upfront? Or did they just have the guts to do it?

Clearly, this was an issue of uncertainty and risk. Volvo Cars had traditionally relied on early selection of technologies and functions for its next generation of products, but experiences with other digital innovations (such as navigation) suggested that such forecasting actually pushed in the wrong direction. The director of infotainment engineering argued,

We never make [proper] risk assessments. We're doing the basic math, but what if things turn out to be better than expected—or worse?

Indeed, making decisions about car connectivity features three years ahead seemed naïve, simply because these features were generated through ongoing interplay between automakers, external developers, end-users, and public authorities. Thus, rather than refining its capability to make early commitments, Volvo Cars needed to develop new capabilities for delayed decision-making (*existing versus requisite capabilities*). The connected car vision was apparently dependent on a new set of innovation skills; to materialize it, the organization had to close some of its competency gaps. A design engineer commented,

We can't make sense of these things! We don't know how to play with platforms and communities to inform connected car innovation.

Hub members therefore agreed to set up a series of workshops in August and September 2011 on three key topics: open innovation, technological platforms, and two-sided markets. The participants read selected scholarly articles and engaged in discussions of how to apply relevant concepts from the literature. These

workshops resulted in Hub members entertaining new ideas and reflecting on their potential implications for Volvo Cars. Intrigued by the new concepts, their attention gradually shifted from internal collaboration within the firm to opportunities for engaging new partners (*internal versus external collaboration*). At the time, however, Volvo Cars was focused on coordinating its own resources to lower costs, improve quality, and increase product performance. Now, it also had to learn how to identify, encourage, and leverage external partners based on continuous scanning of emerging markets and technology developments. Given the complexity of this task, the Hub organized three scenario planning workshops in October–December 2011 to spur ideas on how to effectively exploit digital options through external ecosystems. During the workshops, participants explored trends in Volvo Cars' environment and articulated them in coherent stories:

Software and digital technology rapidly change the premises of innovation in the automotive industry. In particular, this applies to connected cars, being inherently intertwined with external environments. When introducing this new logic for innovation, history becomes increasingly weak as a guide to the future. Our established understanding of the interplay between markets, organizations, and product architectures does not resonate with external developments in society at large. In order to understand contemporary change processes, we need to shift focus toward external environments and adopt new perspectives on a world with which we are increasingly intertwined.

In February 2012, an enterprise architect reflected on the tension between existing and requisite capabilities and its implications for the connected car vision. He found that the scenario-planning workshops had rendered a shared understanding among Hub members of how to develop and implement the connected car vision:

We've created a shared value system through our discussions. Although we're not a formal unit in the Svahn et al./Embracing Digital Innovation in Incumbent Firms organization, we're a lot tighter now....In effect, we've built a shared platform for the Hub network.

Building a Platform Portfolio

When the Hub dissolved in 2012, Volvo Cars knew that external actors could play a key role in generating new ideas for the connected car initiative. As a result, it introduced a recurring innovation contest—the *Volvo Cars Challenge*—to involve key automotive industry actors. Further, it launched a crowdsourcing initiative on Facebook—*Volvo Idea Hub2*—that explored the role of innovation in its design processes. While Volvo Cars' internal practices relied on upfront specification of end-user functions, these external ecosystems called for creative leeway. Ecosystems demonstrated capability to generate specific designs over time, but Volvo Cars had to empower them by providing the necessary “raw material” for innovation (*existing versus requisite capabilities*). A senior R&D manager connected this to a product-centric innovation focus:

I struggle with this every day and try to challenge a function-oriented approach to development....We believe we can't sell a function if it doesn't have a button.

This focus was reflected in the firm's engagement with product platforms. While such platforms catered to cost efficient implementation of predefined product families, they did not allow for guided emergence of novel

products and services. Therefore, to manage innovation focus concerns, Volvo Cars had to explore alternative platform approaches (*product versus process focus*). One option was Sensus Connected Touch (SCT), an Android-based infotainment platform for the aftermarket that could be retroactively mounted in cars. SCT let Volvo Cars tap into existing consumer electronics ecosystems to fulfill “modern car owners’ desire to remain constantly connected” while driving.³ The platform was encapsulated to prevent unauthorized access while allowing drivers to operate services such as Spotify and TuneIn via the steering wheel, center stack controls, and voice interaction. SCT also received the prestigious Red Dot Design Award at the 2013 Las Vegas Consumer Electronics Show. However, the initiative posed challenges because of Volvo Cars’ limited influence over SCT’s creative processes, functional differentiation, and business models. The automaker also realized SCT offered too few generic resources to afford requisite integration with automobile features. So, despite the platform’s inherent capability to prevent unauthorized access, Volvo Cars found that SCT could not effectively stimulate external innovation for connected cars (*control versus flexible governance*). In view of these competing concerns, Volvo instead developed its own integrated infotainment platform, Sensus Connect, as a standard for its new cars. This platform provided a wide range of advanced resources for smooth integration with the car architecture. Volvo Cars decided against launching SensusConnect as an open platform because its flexibility would expose the firm to unacceptable risks. Instead, it created the App Development Group in October 2012, which quickly grew to approximately 30 people. This group was embedded within R&D, yet given substantial autonomy (including an independent budget), and it soon evolved into a broker mechanism that enabled internal engineers to codesign platform applications with external partners. Following this new design practice, Volvo Cars moved away from the traditional scope of automakers and began experimenting with a new class of digital platform services. Seeing the car as a platform in multisided markets would allow the firm to tap into other business transactions. As a key example, the automaker developed the digital key as a distinct platform resource it could share temporarily with couriers to allow them to deliver goods ordered online directly to a parked car. In spring 2014, this service was demonstrated in a pilot project with Sweden’s main supplier of online groceries (Linas Matkasse), which led to the development of Volvo Cars’ Roam Delivery Service. This general capability for multisided solutions was illustrated in a February 20, 2014, press release from Volvo Cars: In a groundbreaking technology move for the automotive industry, Volvo Cars demonstrates the world’s first delivery of food to the car—a new form of “roam delivery” service. The service, which will be showcased at the Mobile World Congress in Barcelona, allows consumers to have their shopping delivered straight to their car, no matter where they are.

Volvo Cars continued to experiment with digital platforms to reinforce a process focus in connected car innovation. To avoid clashes with existing product innovation practices, each initiative had a limited scope and a distinct focus on a particular class of functions. Then, once established, platforms were gradually expanded to cover a broader range of applications. As such, the automaker managed competing concerns in innovation focus through a growing portfolio of increasingly generic digital platforms.

Implementing Volvo Cloud

A key concern for Volvo Cars was to prove its ability to identify new revenue streams and to develop appropriate ways to realize them in the car connectivity realm. However, breaking away from deeply rooted product-centric practices caused tensions, as highlighted by the Hub director:

When it comes to connectivity features, we typically end up discussing whether they should be standard,

optional, or accessories, then we find a business model that goes beyond traditional thinking. But then: “No...it doesn't fit here.” It's scary and unknown, and our finance people tell us we can't trust such revenue streams.

Many proponents of car connectivity argued that its success resided with a viable aftermarket. As illustrated by the vice president in the Connectivity Hub, members were bold in their efforts to persuade the executive team to steer the organization in the aftermarket direction:

I pointed out that we invest 98 percent of our management capacity in developing new cars. That's totally wrong! We should [instead] invest more in developing the aftermarket...but we're stuck in our own model.

Whereas Volvo Cars focused largely on internal collaboration for competitive advantage in original sales, a viable and dynamic aftermarket required external collaboration to facilitate a steady stream of novel applications and services (*internal versus external collaboration*). Several former members of the Hub mentioned this tension and explained how existing product innovation practices relied on a capability to freeze designs prior to production, while an aftermarket orientation focused on keeping design spaces open across the car's lifecycle (*existing versus requisite capabilities*). The Hub director commented:

Our major challenge is to grasp that the car is not completed when it leaves the plant. It won't be completed until it's taken in for scrapping.

To manage these competing concerns, Volvo Cars exploited cloud technology. The introduction of HTML5 afforded implementation of many complex applications based on web browsers. As a connectivity strategist explained, this made functionality fundamentally detached from the car and defined in real-time through external back-end servers:

There's no physical intervention, and we don't even run the software in the car. We just integrate with the cloud in most cases.

In practice, this instant delivery of software-based functions allowed Volvo Cars to shortcut existing routines. While preloaded software essentially had to submit to established processes, the cloud solution promised change and variation. This afforded opportunities to shape aftermarket business growth through economy of scope instead of economy of scale. The focus was apparently on stimulating this functional variation when Volvo Cars teamed up with Ericsson in December 2014 to realize the connected vehicle cloud. With its leadership in telecom network infrastructure and multimedia and its device-manufacturing legacy, Ericsson also promised to offer invaluable tentacles that could help scan external ecosystems for innovation opportunities. Volvo Cars continued to make significant investments in developing its cloud-centric product architecture—including a firewall solution—to spur further external innovation. This architecture enabled flexible integration with existing backend systems, while at the same time preventing unauthorized access to critical systems (*control versus flexible governance*). The Hub director commented,

We're extending our data warehouse to support this cloud solution, and we integrate new security

functions—in cars as well as in the back-end—to prevent intrusion. A connected car will basically be integrated with the IT systems controlling finance, production, and design.

Volvo Cars emphasized its cloud solution's inherent malleability at the 2014 consumer electronics show in Las Vegas. By keeping design spaces open without touching the car's hardware or software, the solution enabled new processes that continuously supply functions and services without jeopardizing traditional product cycle plans (*product versus process focus*). A press release explained the effects of the cloud solution's central nodes: These nodes enable efficient provision and communication of services and information to the cars. All in all, the 'cloud' offers great flexibility to adjust capacity and local presence of content based on end user demands.

CONCLUSION

With a focus on incumbent firms, we have identified four competing concerns in digital innovation and indicated the conceptual origins of these concerns in digital innovation research. We also showed empirically how and why they differentiate and interrelate, and demonstrated their relations of the more general literature in the field. Finally, we argued that managers must deliberately manage these concerns cohesively to embrace digital innovation. Our main contribution to the extant literature, which recognizes these four concerns separately, is an awareness of their individual trajectories, joint emergence, and multifaceted integration. Our findings suggest that, given such awareness, incumbent firms can manage the systemic interrelating of competing concerns and the ongoing tradeoffs between them to perform well in relation to all four concerns.

Our analyses identified the contours of the systemic interrelating and cohesive management that corroborate and go beyond insights from available intellectual tools. While Gregory et al. (2015) identify concerns managers must resolve in IT transformation programs, they primarily address intraorganizational situations rather than those interorganizational arrangements that characterize digital innovation. Adopting an ecosystem perspective, Eaton et al. (2015) conceptualize distributed tuning as the innovation process through which heterogeneous actors shape and reshape digital technologies into organizational resources, but they stay silent on relationships between competing concerns and associated management initiatives. Wareham et al. (2014) offer a dialectic analysis of such relationships and discuss their potential relevance to the emergence of different types of generativity in digital innovation. We complement their work by explicating the linkage between systemic interrelating and the building of generative capability. We suggest that a sustainable design vision is at the heart of managerial intervention, whereas prior research depicts digital innovation as an emergent process wherein deliberate managerial intervention cannot help avoid unpredictable outcomes.

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