

Article Title

“Towards Digital Transformation:

Lessons learned from Traditional Organisations”

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Article Summary

This paper explores the introduction of digital transformation initiatives within traditional organisations. The authors develop a conceptual framework to support managerial actions for digital transformation implementation.

Short title

“Digital Business Model Transformation”

Key Points

Digitally enabled organisations are supported by new information and communication technologies (ICT), referred to as digital technologies, which increasingly promise enormous opportunities for growth.

This paper seeks to explore how traditional organisations (non-digitally native organisations) are implementing digital transformation initiatives.

The study reviews ten case studies from the literature and analysis the approaches these organisations have taken to successfully implement digital technologies.

The findings reveal a conceptual framework that seeks to support management in understanding the actions required to implement digital transformation.

This study has implications for both researchers and practitioners in providing an exploratory review of digital transformation.

J.E.L. classification codes

D83, L86, O33

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**“Towards Digital Transformation:
Lessons learned from Traditional Organisations”**

Introduction

Digitally enabled organisations are supported by new information and communication technologies (ICT), referred to as digital technologies, which increasingly promise enormous opportunities for growth. These new digital technologies embrace ICT systems such as virtualization, mobility, and analytical systems, and are integrated with back-office ICT to provide a holistic view of the digital enterprise. Such initiatives are referred to as digital transformations, which require organisations, and respective management, to significantly reflect on the process of successful implementation. Yet, history teaches us that the implementation of large-scale ICT-enabled change initiatives have a poor rate of success across organisations. Some studies, for example, cite up to 90% failure rates for the implementation of enterprise systems. Yet, our empirical understanding of how organisations implement digital transformation initiatives remains fragmented, with Hess et al, for example, noting that “recent work in academia has been largely concerned with providing guidance on certain aspects of digital transformation” (2016: 124). Consequently, this study seeks to explore the actions required when implementing digital transformation within traditional organisations. The paper reviews ten digital transformations from the case literature and proposes a conceptual framework. The proposed framework will support researchers in building an exploratory perspective on the topic of actions taken by leaders for digital transformation implementation, while providing practitioners with a useful benchmarking tool to checklist key criteria important to the successful implementation of digital transformation. The paper firstly begins with a preliminary review of the literature on organizational business models and digital transformation initiatives. The paper then discusses the methodological approach to inquiry, which is followed by findings and the proposition of a conceptual framework. The paper concludes by

drawing out the key academic and managerial implications from this study before briefly noting the study limitations and proposing suggestions for future research inquiry.

Organisational Business Models

As this paper seeks to explore the actions required by organisations that choose to digitally transform their organisations, it is firstly important to provide a brief overview of the effect this emerging topic has on respective business models. According to Lambert and Davidson, who reviewed empirical studies that used the business model construct between 1996-2010, “there is no widely agreed upon definition and composition of the business model concept” (2013: 668). For example they note that Weill and Vitale describe the business model as a set of “roles and relationships among a firms consumers, customers, allies, and suppliers” (2002: 34), while Afuah notes that it “is a set of activities which a firm performs” (2004: 9), with Osterwalder and Pigneur viewing it as a support “in articulating how the firm creates and captures value” (2009:14), and finally Zott and Amit viewing the business model as a “system of interdependent activities that transcend the focal firm and spans its boundaries” (2010: 216). Despite the differing views on what the business model is, there is general consensus amongst scholars and practitioners alike that it is an important tool in supporting organisational strategic choices (Parry et al, 2014, Myrthianos et al, 2014).

Organisations seeking to deploy digital technologies to garner greater competitive advantages must also ensure their respective business models are aligned. According to Westerman et al, there are five archetypes of business model reinvention driven by digital technology, namely (i) reinventing the entire industry, for example as Airbnb did to the hotel market, (ii) substituting products and services, e.g. Tesla cars are with traditional oil fueled cars (iii) creating new digital businesses with the development of new products and services, as Nike+ did via iPod and iPhone connections (iv) reconfiguring value

delivery models, where products and services are reimagined within the value chain, e.g. where car maker Volvo reconfigured its business model to provide more direct services to its customers, and finally (v) rethinking value propositions, (2014: 78). In order to better explore the cases under scrutiny in this paper, these five business model archetypes will form part of the articles proposed empirical framework.

Digital Transformation

Digitally enabled organisations are supported by new information and communication technologies (ICT), referred to as digital technologies, which increasingly promise enormous opportunities for growth. Digital enterprises are empowered by the deployment of ICT systems that combine three key technologies, namely; (i) virtualization systems, e.g. cloud computing (ii) mobility systems, e.g. social media, the Internet of Things, smartphones and tablets, and (iii) embedded analytics systems, e.g. big data. These three technologies combined with integrated back-office ICT systems such as Enterprise Systems enable the digital enterprise. Organisations that successfully craft a vision that aligns internal business process integration with external digital technology opportunities will leverage significant strategic advantages within their respective industry. Research by Westerman et al, where the authors 'surveyed 391 large companies with revenues of \$500 million or more across 30 countries, found that organisations with successful digital strategies were 26% more profitable than their industry peers and generated 9% higher revenue from their physical assets' (2014: 17-18). In financial terms Bughin et al, from research across four industry sectors that represent almost 20% of global industry sales, found that digital technologies have the potential to unlock between \$900 billion to \$1.3 trillion in value for organizations (2012). For example, 'global business spending on cloud technologies alone surpassed \$174 billion' in 2015 (Edelman et al, 2015). As a consequence, digital transformation has become a high priority for management within traditional organisations, with nearly 90% of business leaders in the U.S. and U.K. expecting ICT and digital

technologies to make an increasing strategic contribution to their overall business in the coming decade (Bonnet et al, 2012).

From a manufacturing perspective, for example, digital technologies allow for greater individual customization of products and services and will eventually lead to 'mass customization' of products produced at the same price as current mass-produced products (Marsh, 2012). Similarly, Coreynen et al note that digital technologies support the process of servitization, where manufacturers are increasingly offering services that are directly coupled to their products (2016). Such a process of the digitization of manufacturing is further highlighted by Vendrell-Herrero et al, who note that because of the dematerialization of physical products supply chains are gradually adopting service business models where digital technologies are increasingly embedded in physical products leading management to adopt a digital servitization approach (2017).

Industries that are consumer-centric, such as healthcare (Agarwal et al, 2010, Kane, 2015), retail, hospitality and travel, sports and entertainment, legal services, financial services, residential real estate are also particularly interested in realizing the benefits from digital transformation initiatives (Gray et al, 2013). As one such example, Burberry has digitally transformed its business in order to deliver a seamless customer experience. In fact, Burberry attributed its strong growth of 30% during the financial crisis largely to its omnichannel (an integrated multichannel approach to sales and marketing) initiative (Hansen & Sia, 2015). Digital transformation initiatives focus on leveraging greater customer engagement, bringing further flexibility and agility to standardized, and centralized, operational processes, and providing new strategic opportunities to organisations by reconfiguring business models, creating new products and services, and in some cases disrupting and reinventing entire value chains and industries (Westerman & Bonnet, 2015). According to Berman, "to succeed in digital transformation leading companies focus on two complimentary activities; reshaping customer value propositions and transforming their operations using digital technologies for greater customer interaction and collaboration" (2012: 17).

Yet, many organisations have struggled with the emergence of digital technologies and the respective transformation initiatives of their organisations. In fact, Desmet et al note that while “the average corporate life span has been falling for more than half a century—Standard & Poor’s data show it was 61 years in 1958, 25 years in 1980, and just 18 years in 2011—digitization is placing unprecedented pressure on organizations to evolve. At the present rate, 75 percent of S&P 500 incumbents will be gone by 2027. That means managing your transition to a digitally driven business model isn’t just critical to beating competitors; it’s crucial to survival” (2015: 1). “Unfortunately, there are many recent examples of organizations that have been unable to keep pace with the new digital reality. Prominent examples include the bankruptcy of the movie-rental company Blockbuster and the sale of the Washington Post to Jeff Bezos, founder of Amazon—largely resulting from those firms’ digitally based business models” (Hess et al, 2016: 123-124).

Accordingly, this study reviewed the digital transformation literature in an effort to understand the issues behind successful implementation. The authors found a fragmented literature set, with only 24 articles published in academic journals under the title “digital transformation”. This point is further supported by Hess et al, who note that, “recent work in academia has been largely concerned with providing guidance on certain aspects of digital transformation” (2016: 124), with the field lacking empirical inquiry. As a consequence, this study seeks to explore the managerial actions required when implementing digital transformation within traditional organisations.

Methods

This study focused on a systematic review of the case literature in order to explore the topic under investigation. Specifically, cases were selected from the case centre clearinghouse, which “is the case method resource for business education worldwide, holding the world’s largest and most diverse collection of management cases” (www.casecentre.org). The systematic review followed a

similar methodological process as proposed by Frizzo-Barker et al (2016: 404), where three phases for review were deployed, namely (i) selection of cases, (ii) data collection, and (iii) data analysis. The first phase began by adapting Lambert and Davidson's (2013: 670) criterion for selecting case studies for inclusion in this study. In particular, this paper held three criteria that needed to be met by selected case studies, namely, (i) the term 'digital transformation' is included in the title of the case study. As a first filter to eliminate papers that make only an incidental references to digital transformation we restricted the search to those with the words "digital transformation" in the title, (ii) the paper has gone through a review process and is published by a University research centre or publishing house, and (iii) the digital transformation concept is the focus of the paper. In all 13 case studies were identified from the initial data collection phase of the research. During the first round of filtering, three cases were dropped from the selection, namely because the case study was not published in English, cases were from the same company, i.e. the study would not select two cases about the same organisation, or the case studies were editorials or opinions pieces rather than an organisational case. As a further filter to support data collection and assist in eliminating papers that did not adhere to the criterion above, the authors also read and reviewed all nominated case study papers. This filtering round revealed 10 case studies that fulfilled the criterion set out above. Figure 1 below provides a background to the selected case studies (as adapted from Hess et al (2016) study on within-case data analysis). Finally, the third phase involved data analysis. The authors firstly looked at the key words and abstracts of all case studies and created a Microsoft Excel 'open code' database, where key words and phrases from this first round of analysis were developed. The case studies were then read through, noting specific words and concepts. These developing concepts were then added to the database. The second phase of analysis involved the prioritization or categorization of words into similar themes. This round of analysis brought the four key themes of (i) strategy-centric, (ii) customer-centric, (iii) organisation-centric, and finally technology-centric to the fore. The third and final phase of data analysis involved rereading each case to draw out key characteristics that

were unique to each of the four themes above. Figure 1 below illustrates the final phase of this data coding process.

Findings

The within case analysis revealed four key themes that this study found to be critical for traditional organisations when implementing digital transformation initiatives (which are illustrated in Fig. 2 below). The four themes are referred to as managerial 'actions' and are categorized into an "organizing framework", where "strategic" and "operational" organisational perspectives (horizontal view) and "internal" and "external" organisational perspectives (vertical view) are used to illustrate the characteristics of respective themes. From a strategic perspective, the key themes of "business model innovation" and "organisation" have emerged. Organisations seeking to successfully implement digital technologies need to attend to developing a clear view of the required business model and the respective innovations required to align with the needs of the transformation initiative. Similarly, the organisation will also need to ensure that transformation is viewed from a "business" perspective and not driven as a technology solution. From an "operational" perspective, a critical theme is the importance attributed to understanding customer needs and expectations and embedding processes that 'bring the customer in'. Finally, the framework reveals the importance of applying the relevant information technology to ensure both internal systems and external digital systems are integrated and able to 'speak to one another'.

(i) Strategy (Business Model)-centric Actions

According to Westerman et al (2014: 78-79), there are typically five archetypes of business model reinvention attributed to digital transformation, namely, (i) reinventing industries, where digital technologies fundamentally disrupt the industry similar to how AirBnB reshaped the Hotel & Hospitality sector, (ii) substituting products or services, where your core products or services become substitutable by a new digital format, for example smartphones role in displacing

telephone services, (iii) creating new digital businesses, where creating new, or transforming current, products and services generate additional revenue and business, (iv) reconfiguring value delivery methods, where products, services, and data are recombined to change how the firm plays in the value chain, and finally (v), rethinking value propositions, where organisations deploy digital technologies to target unmet customer needs. This study found three key business model innovations to be present across the case analysis from their respective digital transformations, (i) creating new digital businesses (cases of AccorHotels and Tate Museum), (ii) reconfiguring value delivery models (cases of Tesco, Publicis, and First Republic Bank), and (iii) rethinking value propositions (cases of Merck, Philips, and Novartis). Perhaps, it is unsurprising that no case sought to deploy a business model that would “reinvent their industry”, as they were all traditional organisations that were adapting to digital transformation. Similarly, there was no evidence of business model innovation to “substitute products or services”, again pointing to how the cases reviewed consider digital transformation as an enhancement to their traditional business models rather than a replacement for respective strategic operations.

Focusing on business model innovation across the reviewed cases, as illustrated by the Tate Museum case study, “the organisation wanted to reconceptualise digital as a dimension of everything, by expanding digital activities beyond those that supported what was happening in the physical galleries”, (Avery, 2014: 12) effectively creating new digital businesses. AccorHotels, faced with significant disruptions within the industry, for example AirBnB, wanted to create a business model that would enrich experiences, via integrated digital platforms, along a new customer journey (Dubois, et al, 2016), thus affording new digital business opportunities. Similarly, Klockner ‘had begun to digitalise its operations in order to create an online marketplace for its customers and suppliers. The aim of this cases digital transformation strategy was disruption, where an innovative business model was proposed that would bring together the real and virtual worlds, thereby creating a digitally integrated industry (Bhatnagar, 2016).

Three cases (Tesco, Publicis, and First Republic Bank) sought to adopt a business model approach that allowed greater reconfiguring of value delivery models through digital transformation. For example, the First Republic Bank case notes, “so much of the digital transformation is focused on bringing information together into one place so you can see it all at once. Our focus as a bank is to serve you as a client holistically, and we want the technology to provide that holistic view” (Kansara, 2016: 6). Similarly, the Tesco case notes, “Tesco adopted a holistic approach to its multichannel offering and looked at how customers were interacting through its online, digital, and in-store points of contact. The management realized that any future success would depend upon the successful integration of offline and online points of contact” (Satish & Kumar, 2015: 9). The fusion of products and services supported by an integrated approach to technology allowed these cases to reconfigure their business models in order to gain a more holistic view of the organisation and respective customers. Finally, the remaining three case studies reviewed (Merck, Philips, and Novartis), adopted a business model approach that would rethink respective value propositions after implementing digital transformation. For example, the Novartis case notes, “an era of speed over perfection, an era of collaboration over connectedness that transcended geographies, functional responsibilities and established organisational structures. Digital technology was beginning to bring a wholesale transformation in the way Novartis engaged with its customers and went to market” (Marchand & Bochukova, 2014: 16). Similarly, the Merck case notes, “digital transformation is the realignment of, or investment in, technology and business models to more effectively engage digital customers at every touchpoint in the customer experience lifecycle” (Ratna, 2015: 2). In other words, the pursuit of new value propositions requires a transformational approach to customer engagement, where unmet customer needs can be identified and met through digital transformation. It is worth noting that the three case studies that pursue such a digital business model approach are from the healthcare/pharmaceutical industry.

(ii) Customer-centric Actions

The study found that the reviewed case studies displayed three key approaches to developing digital customer-centric approaches, namely; (i) designing a customer experience from the outside-in, (ii) reaching and engaging customers and online communities, and (iii) blending a physical and digital (or virtual) customer experience. For some cases reviewed, redesigning the entire customer experience was key to their respective digital transformation initiatives. For example, AccorHotels sought to create a new 'customer journey', where "digital technologies could transform customers' expectations by enabling travellers to connect with others and share their experience throughout their journey". New digital technologies, such as WhatsApp and WeChat (for China) can further support this 'outside-in' customer experience for organisations (Dubois et al, 2016: 5). Reaching and engaging customers and online communities was also an important step in developing a customer-centric perspective during digital transformation. For example, Tesco introduced 'click and collect kiosks, mobile apps, Facebook accounts, Pinterest, Google+, and Twitter accounts in an effort to provide a varied social media strategy that would allow the organisation to reach and engage their customers and respective online communities. Customers that provided information and feedback on issues were rewarded with Club Card top-ups (Satish & Kumar, 2015). Similarly, the Philips case review noted, that the organisation wanted to move from a product-based to a customer-centric company, where "with the help of digital technology, the company is building an eco-system around connected products, called 'communities of interest" (Sharma, 2015: 9). Finally, digital transformation requires a blending of the physical and digital for some organisations. For example, the Tate Museum case noted, that the organisation actively sought to create a 'blended customer experience with initiatives such as 'Art in Action'-a 15 week festival that delivered 40 live performances encouraging audience/artist participation, the 'Tweet me Up' initiative saw over 122,000 participations from the public via Facebook, Twitter, Google+, to lastly the largest physical/digital combination experience called 'Bloomberg Connects' initiative saw 75 interactive screens installed in the Museum, which projected visitor tweets, comments, photographs, and digital drawings' (Avery, 2015).

(iii) Organisational-centric Actions

The study found that the reviewed case studies revealed three organization-centric approaches when introducing digital transformation initiatives, namely; (i) recognizing the importance of fostering a digital culture, (ii) having a clear understanding of the key critical success factors required to deliver upon digital transformation, and (iii) focusing on the organization rather than the technology in delivering change. Novartis, for example, found that fostering a digital culture across the organization was critical to success, with Epstein, Head of Novartis' Pharmaceutical Division, a Digital Immersion Workshop for the organization, which centered on four key themes; (i) customer centricity, co-creation, market making, and digital culture, where Epstein believed that "Novartis' culture had to evolve to embody the core tenets of digital, i.e. speed to market, collaboration, and smart use of data" (Marchand & Bochukova, 2014: 16). In an effort to support it with its digital transformation initiative, the Publicis Groupe purchased a company called Digitas, where "the Digitas acquisition was used to spur the total transformation of Publicis Groupe, to have all pieces move in one unique digital direction...Digitas had a start-up culture, accustomed to rapid decision-making. Digitas was very much an organization of entrepreneurs...if there isn't change every year then people think there is something wrong, it's going stale, we are not keeping fresh" (Kanter & Bird, 2009: 5). The second key theme emerging from the reviewed case studies is understanding the factors deemed critical to digital transformation success. Critical success factors (CSFs) are frequently cited within the management literature as key areas for concern in ensuring large-scale ICT-enabled change (Loonam et al, 2017). The study found that a number of factors were deemed critical to ensure successful digital transformation, including, effective leadership (e.g. Philips and First Republic Bank), a focus on change management (e.g. Philips and Publicis Groupe), and organisational-wide communication (e.g. Tesco and Tate). Finally, the third theme revealed from the cases reviewed focuses on the importance of acknowledging the organisation in digital transformations. In other words, it is critical that management are aware of legacy business processes and organisational structures when adapting digital technologies. For example, the

Publicis Groupe created a new organisational structure to meet the challenge of digital transformation with a focus on “two axes, technology and talent. The centerpiece was a digital nerve centre—a platform of performance measurement, social media, and mobile communication tools” (Kanter & Bird, 2009: 11). Similarly, AccorHotels focused on redesigning their organisational structure in order to integrate online content into the organisations business processes (Dubois et al, 2016: 11).

(iv) Technology-centric Actions

Adopting a technology-centric perspective was also found amongst the cases reviewed to be important in advancing digital transformation. Specifically, the study found three key approaches, namely, (i) an integrated approach to systems across the organisation, (ii) gaining insights from data analytics, and (iii) building across platforms, where digital technologies can seamlessly interact with one another. To match the efforts made in aligning organisational structure and business processes, internal organisational systems must be integrated in order to maximize on digital transformation. Information systems such as enterprise resource planning systems, customer relationship management systems, and supply chain management systems, assist the organisation in providing a single view of its business processes. Such systems can then connect with digital technologies, where customer preferences and requirements can inform every activity of the value chain. For example, the FRB case reveals that an integrated approach to systems delivery is critical for their digital transformation initiative, noting “our focus on digital transformation is applying automation internally to help with better work flow, to help provide a high-tech enabled, high-touch experience....Externally it is the same thing. It really is about bringing this information into one place, so you can see it all at once” (Kansara, 2016: 6). The second approach to building a technology-centric perspective is to develop greater insights from data. Typically, the emergence of big data systems supports increased analytics within organisations. For example, Merck deployed the ‘Revolution Analytics’ gsDesign Explorer, a graphical user interface to drastically shorten the time consumed in clinical drug trials...this prevented

money wasted on failed trials (each trial would cost \$10 million) and instrumented improved patient outcomes' (Ratna, 2015: 6). For Merck, insights garnered from data analytics promises to provide the organisation with a significant technology-centric ability in delivering digital transformation. Finally, the third approach revealed from the cases highlights the importance of building across-platforms, where all customer touch-points are reached. As Berman noted, "online, customers switch back and forth between email and social networks. They change platforms and channels-comparing prices on a smart phone one minute, trying on shoes in a bricks-and-mortar shop the next, and later making a transaction on their PC or tablet" (2012: 22). Similarly, the case literature revealed that such cohesion is essential during digital transformation. For example, "Tesco provided its customers with various options to access shopping online. They could log on to the website directly or access it through mobile phones and tablets" (Satish & Kumar, 2015: 8), thus affording customers with an integrated multichannel experience across different platforms.

Towards Digital Transformation

This study offers an exploratory overview of the topic of building an understanding of digital transformation within traditional organisations. Clearly, traditional organisations have much to learn from digital native organisations if they are to successfully implement digital transformation initiatives. The study found that management needs to be cognizant of the critical perspectives of strategic-centric, customer-centric, organisational-centric, and technology-centric views in order to deliver digital transformations. Key issues with regard to the four themes are the competing values held by each. The framework above reveals that particular conflicts exist, for example the "organisation" and "customer" themes. While organisations have always valued the importance of customer insight and opinion into respective product and service development, the issue here is challenging management to think very differently about their relationship with the customer. Instead of being casual onlookers, organisations seeking to implement effective digital technologies will

need to ensure customers become active participants, where insights directly influence the product and service on offer. This obviously challenges the power and control held by many organisations and opens management to external influence, and indeed scrutiny. Such an approach will clearly require a digital cultural programme for the organisation. Similarly, the remaining themes of “strategy” and “technology” can also conflict in their sense of importance and influence on the organisation. Management on the “strategic” side of the house may very well feel that the technology should be made to fit with any proposed business model innovations. However, advocates of digital technology may adopt a bottom-up approach to implementation, believing that the very disruptive nature of such technology requires a flexible approach by management, where any proposed business model changes will adapt to emergent technological demands. Therefore, it is critical for management to understand the competing demands upon each perspective but appropriately adopt a holistic approach to digital transformation implementation.

Conclusion

Digital transformations will continue to grow in importance for organisations over the forthcoming decade, making a focus on understanding how companies can better prepare for such disruption. Accordingly, this paper sought to take lessons from the case literature in exploring digital transformation. The study reviewed ten digital transformation cases and developed a conceptual framework to support researchers and practitioners. The study found four key themes, i.e. strategic-centric, customer-centric, organisation-centric, and technology-centric perspective, which organisations typically need to deploy when implementing digital business model transformations.

This study has implications for both academia and practice. From an academic perspective, the study provides an exploratory review of the case literature on digital transformation. The authors develop a conceptual framework of the key managerial actions required when introducing digital transformation initiatives. This framework provides an initial perspective on factors management must

address in order to conduct successful digital transformations. From a practitioners perspective, the framework provides leaders with a specific tool to support the implementation process by providing a holistic view of the strategic and operational factors deemed critical to digital transformation.

Yet, some limitations are present in this study, which could be overcome with future research inquiry. In particular, the lack of empirical field study scrutiny to substantiate the proposed framework is a limiting factor. Future research might seek to evaluate the empirical nature of this framework; in particular studies seeking to conduct a more exploratory field case study, which would significantly advance our understanding of this topic and substantiate the claims proposed in the conceptual framework. Furthermore, a wider array of data collection techniques, where focus-groups, questionnaires, and semi-structured interviews could be deployed, would support a more in-depth analysis of data and again provide a more holistic understanding to the topic of digital transformation implementation within traditional organisations.

No.	Case Study Title	Publication Source	Industry	Authors	Date Published	Keywords	Digital Transformation Overview
1	THE STATE'S DIGITAL TRANSFORMATION	Harvard Business Publishing	Entertainment Art	Avery, Bill	2015	Non-profit organizations; Social enterprise; Marketing; Marketing communications; Internet marketing; Marketing strategy; Social media	Tate's fifth gallery into a virtual place filled with immersive and engaging content, activities, experiences, and communities.
2	MERCK: LEVERAGING DIGITAL TRANSFORMATION	Amity Research Centers	Pharmaceutical	Ratna, Garima	2015	Merck; Digital health; Global health innovation fund; Merck Medical Information and Innovation; Digital transformation; Sachin Jain; M2I; GHI	Digital transformation was about re-envisioning customer experience, operational processes, and business models
3	TESCO'S DIGITAL TRANSFORMATION	IBS Center for Management Research	Retail	Satish, D., MV. Kumar	2015	Digital transformation; Green shield stamps; Every little helps; Tesco Club Card; Tesco Online; Tesco on Social Media; Multichannel strategy	Digital transformation provided customers with an integrated multichannel interaction with the organisation with various options to online shopping
4	PUBLICIS GROUPE 2009: TOWARD A DIGITAL TRANSFORMATION	Harvard Business Publishing	Advertising	Kanter, R., M. Bird	2009	Innovation; Organizational change; Advertising; International business; Marketing; Global business; Change management; Mergers and acquisitions	Digital transformation was used to integrate technology platforms and operational processes across different agencies globally.
5	PHILIPS: DRIVING DIGITAL TRANSFORMATION TO REDEFINE BUSINESS	Amity Research Centers	Healthcare	Sharma, N	2015	Philips Global; Digital marketing; Customer experience; Digital transformation; Restructuring; Spin-off; Acquisitions; Marketing strategy; Research and development; Innovative products; Leadership change; Management change; Advertising; Product driven; Market driven	Digital transformation would assist the company in moving from a product-driven organisation to a customer-driven market-driven company
6	DIGITAL TRANSFORMATION AT NOVARTIS TO IMPROVE CUSTOMER ENGAGEMENT	IMD	Pharmaceutical	Marchand, D., P. Bohukova	2014	Digital transformation; Customer engagement; Customer relationship management (CRM); Pharmaceutical; Sales force	Digital transformation was about providing the right drug to the right patient at the right time
7	FIRST REPUBLIC BANK: DIGITAL TRANSFORMATION WITH A HUMAN TOUCH	Amity Research Centers	Banking	Kansara, K	2016	First Republic Bank; Digital transformation strategy; Business model; Evaluate banking process; Prioritizing business imperatives; Defining success criteria; Evaluating and transforming banking; Engaging leadership; Right positioning to survive competition; Management strategy; Exploring possibilities; Building brand value	Striking a balance between going digital and maintaining its traditional human touch with its clients and customers
8	ACCOR HOTELS AND THE DIGITAL TRANSFORMATION: ENRICHING EXPERIENCES THROUGH CONTENT STRATEGIES A LONG CUSTOMER JOURNEY	INSEAD	Hotel & Hospitality	Dubois, D., Chae, B., Niessing, B., Wee	2016	Digital transformation; Content marketing; Customer-centricity; Hoteling & Tourism; Social media marketing; Customer journey; Consumer experiences; Digital disruptions; Reputation; Reputation management; Accor Hotels booking Airbnb; TripAdvisor; Online reviews; Social media listening; Digital organizational integration	Using digital technologies to enrich and enhance the customer experience
9	ENCYCLOPAEDIA BRITANNICA'S DIGITAL TRANSFORMATION	Amity Research Centers	Publishing	Sharma, N	2016	Encyclopaedia Britannica; Education; Publishing; Digital learning; Strategic transformation; Digital marketing; Disruptive innovation; Offensive-defensive strategy; Core competency; Restructuring; Leadership; Forecasting; CRM systems; Print media; Strategic transition	Moving from traditional business model to digital business model
10	KLOCKNER'S DIGITAL TRANSFORMATION: WILL THE DISRUPTIVE MODEL WORK FOR THE STEEL MAJOR?	Amity Research Centers	Steel	Bhatnagar, M	2016	Intense competition; Fluctuations in steel prices; Over capacity; Fragmented markets; Digital technologies and strategies; Business growth; Innovations; Supply chain management; Automating manufacturing process; Online marketplace; Digital transformation; Disruption; Real and virtual world; Value added products; Processing services	The aim of Klockner's digital transformation strategy was disruption, which was significant to surviving and ensuring future growth both to the company and industry level. Digitalisation resulted in coming together of real and virtual worlds, thereby creating a digitally integrated industry. Klockner had successfully expanded its business through value added products and processing services.

Figure 1: Within-case study analysis

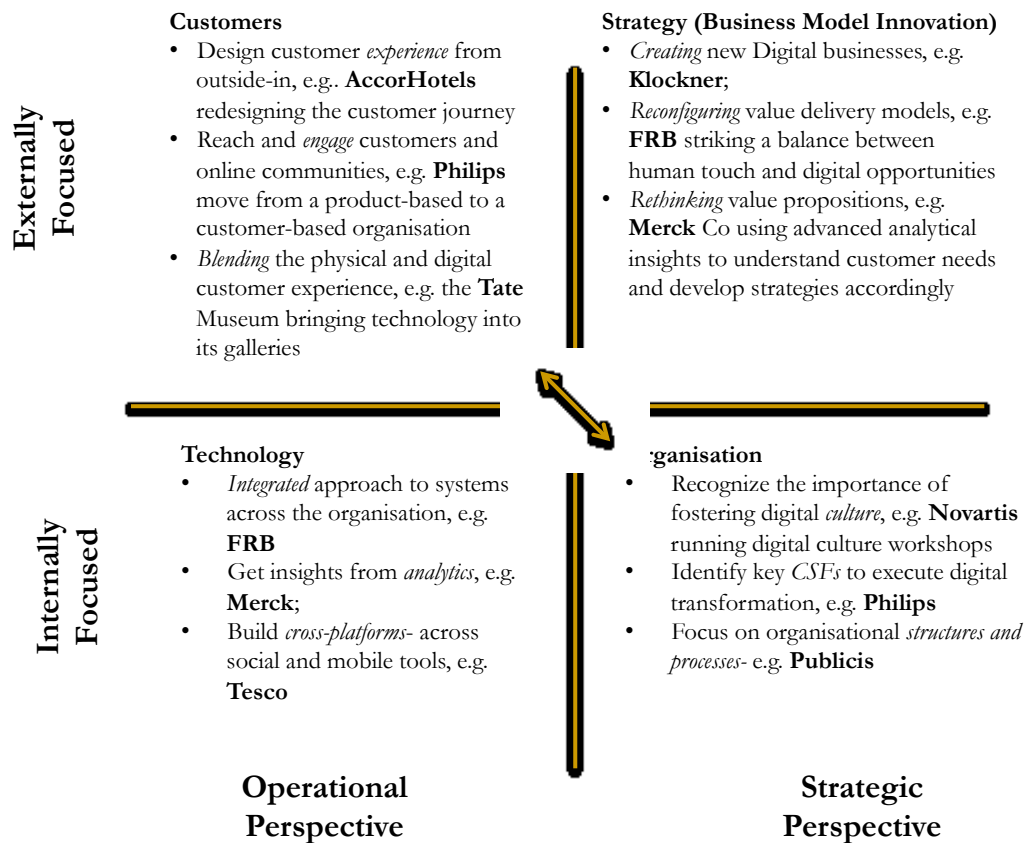


Fig. 2: Managerial Actions for Digital Transformation Initiatives

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