How leaders manage their business models using information

Brett Parnell, Merlin Stone and Eleni Aravopoulou

# Abstract

## Purpose

The purpose of this study is to explore the information leaders use to keep their organisations competitive by determining if their business model is under threat and/or needs changing and whether business model innovation is needed.

## Design/methodology/approach

This study uses a grounded theory approach to probe an area which has been so far researched very little.

## Findings

The article identifies that while quality of management information affects leaders’ decisions about whether their business model is under threat or needs changing, leaders may or may not choose to use it.

## Research limitations/implications

The research was carried out with large firm in six sectors in the UK. Research in other sectors, in smaller firms and in other countries should be carried out to test generalisability.

## Practical implications

Although many large firms have made very large investments into areas such as customer insight in the last few years, there may be resistance to using this information even if it indicates that a firm’s current business model is under threat, because of straightforward denial or because of the inertia associated with factors such as difficulties in changing business models or the extent to which the firm’s financial situation is based upon exploiting its current business model, no matter how much that model is under threat from firms with other business models. Therefore, in strategic reviews, firms should factor in these risks and seek to mitigate them.

## Social implications

In public sector organisations, these risks of denial or inertia may be stronger due to conservatism and lack of willingness to take the risks of change, so public sector decision makers need to be particularly aware of these risks and seek to mitigate them.

## Originality/value

The theoretical contribution of this research is to add to business model and strategic management literature by explaining the role that information plays in business model choice, and how its role depends on whether and how the information is used by senior management.

# Keywords

Business models, leader, strategy, management information, competition

# Type: Research Paper

# Introduction

Much has been written about the importance of business models and the generation of new business models (Foss and Saebi, 2017), but little is understood about the role of a business’s leader (whether a Chief Executive Officer of a large corporation or a small entrepreneur) in developing a new business model, and how that leader may work with members of a new ecosystem of suppliers, partners and customers to create a new business model (Foss and Stieglitz, 2015).

This study focuses on board-level leaders from market-leading organisations in six industries - media and communications, financial services, travel, information technology, higher education and retail. Three organisations, with a leader from each, were chosen for each industry, generally with two market-leading organisations and the third a strong challenger in the market. The data was collected by semi-structured interviews. This was supplemented by company reports, business model and strategy documentation and grey literature. Grey literature has become more important for qualitative research such as this partly because more stringent disclosure and governance requirements have forced large public companies and public-sector organisations to be much more explicit about how they do business and their business models.

The challenges faced in these sectors are different. For example, one challenge in media industries is the threat of digital business models to print and broadcast businesses, in travel and transport that of low-cost versus scheduled airline models. However, in both cases, digital technology is the underlying basis of threats to incumbents, so this was identified at the beginning of this research, allowing the research and analysis to focus on challenges posed to business models by digital technology. The latter is covered extensively in the grey literature, particularly the disruptive changes created by digital media (Manyika *et al.,* 2013). However, as the study progressed, it became clear that while this was indeed a challenge, it was just one issue within the wider issue of leadership involvement in business model decisions.

The aim of the research is to understand the relationship between business model choice, including business model innovation, the role of leadership in these areas, and the relationship between the information business leaders receive and their business model decision-making. To achieve this aim, it addresses the following research questions:

* How do leaders make choices about new business models, particularly ones where digitalisation is a key component of the model?
* What are the barriers to creating new business models and how do leaders overcome them?
* What information do leaders use to identify whether to adopt a new business model, whether their existing model is threatened, or whether their current model is working?

# Literature review

Although definitions of “business model” differ across studies, most current definitions are relatively consistent with that of Teece’s (2010, p. 172) as the “design or architecture of the value creation, delivery, and capture mechanisms” of the organisation. Furthermore, as Saebi *et al.* (2016) show, despite using different terminology, the literature has converged on the components of a business model as being the value proposition and market segments, value chain structure needed to realize the value proposition, value-capture mechanisms used by the organisation deploys, and how these elements combine into an architecture.

Mitchell and Coles (2003) posit the idea of companies being able to apply innovation to business models, but this insight has only recently become more than an afterthought (Zott *et* al., 2011). Despite much practitioner and scholarly interest in business model innovation, the literature exhibits many characteristics of emerging research, notably, a lack of construct clarity (Suddaby, 2010). Supporting this is the observation that business model innovation is “a slippery construct to study” (Casadesus-Masanell and Zhu, 2013, p. 480). Foss and Saebi (2017) also point out that measurement and operationalisation can be difficult without construct clarity. Further, their research suggests that the literature does not demonstrate clearly articulated research models of the underlying causal web-connecting antecedent, moderating, and mediating variables with the key construct and consequences. This suggests that these characteristics hinder cumulativeness of research efforts - indeed observations of this nature have been made concerning the wider business model literature (Foss and Saebi, 2015; Zott *et al.*, 2011). Foss and Saebi (2017) suggest that it is unsurprising that these characteristics of business model research are shared with business model innovation research, but citing Singer (1975, p. 203), they point out that “cumulativeness in science is usually taken to be dependent on constructs, models, and heuristics being clear and agreed on”.

In their discussion on the origin and development on the business model concept, Wirtz *et al.* (2016) support this view, suggesting that business models are still poorly understood. Teece (2010) also suggest that there is poor theoretical grounding in economics or in business studies for the concept. Wirtz *et al.* (2016) assign selected business model research publications to the categories of technology, organisation and strategy, suggesting an increasing consensus about the purpose of the business model concept and its role in existing business concepts, from operational process management to future-oriented strategy.

The increased involvement of strategically-focused authors has led to questions about the difference between business models and strategies. The lack of agreement on this at practitioner level (Stott, 2016) was also found during the interviews for this study. However, research by Wirtz *et al.* (2016), supported by Osterwalder (2004), Rajala and Westerlund (2005), Casadesus-Masanell and Ricart (2010), Al-Debei et al. (2008), Amit and Zott (2001) and Tikkanen *et al.* (2005), shows that while the concepts of strategy and business model intersect, they are not identical.

Wirtz *et al.* (2016) suggest that a strategy involves a vision, positioning relative to the environment or competitors, an idea of which direction the business will take, and that this view is supported by many classic strategy authors. Faghih *et al.* (2018), in an article which presents a particularly good synthesis of the discussion of the relationship between business model innovation, strategy and strategic innovation, suggest that all firms have a business model, whether implicit or implicit, but not all firms have a strategy. Osterwalder *et al.* (2005) argue that, when fundamental decisions are made on a company’s medium and long-term objectives, the business model concept applies to the value creation logic of a company, as a holistic, aggregated, description of company activities, including processes. So, while a new business model may entail changes in medium to longer-term outcomes, traditionally the role of strategy, a strategic change may entail adoption of a new model, with different ways of working, so while the two concepts are intertwined, the term “business model” can also link future strategy or planning with operational implementation – for example, process management (Wirtz et al., 2016).

Foss and Saebi (2017) suggest that business model innovation is a source of sustained value creation. Innovative models positively influence performance of entrepreneurial organisations, while established organisations that innovate their models improve their performance (Cucculelli and Bettinelli, 2015).

One factor in continued success is quality of executive leadership. The traits, characteristics and philosophies of good leadership have been widely studied (Morse and Babcock, 2007). Chen (1996) proposes the awareness-motivation-capability framework for understanding the relationship between leadership behaviour and competitive success. This focuses on three interrelated behavioural drivers that influence an organisation's competitive behaviour. Awareness captures how far an organisation is cognizant of "its competitors, the drivers of competition within the industry, and the general competitive environment" (Smith *et al.*, 2001, p. 320). Motivation encompasses the incentives that lead an organisation to enact competitive actions. Capability to act covers the organisation's resources (or access to resources) and its decision-making processes (Grimm *et al.*, 2006). These three characteristics determine an organisation's likelihood to engage in competitive actions or reactions. While competitive behaviour may take various forms, competitive actions with greater strategic scope are unique (Chen and Miller, 2012). Strategic competitive behaviours are long-term actions or reactions involving significant commitment of resources, are not easily reversed once implemented (Smith *et al.*, 1992). In this respect, they resemble business model changes.

Foss and Saebi (2017) suggest that the business model is an antecedent of heterogeneity in organisation performance, with some types of model outperforming others (Weill *et al.*, 2005; Zott and Amit, 2007, 2010). Successful models are examples to be imitated (cf. Chesbrough, 2010; Teece, 2010) or replicated (Doz and Kosonen, 2010; Winter and Szulanski, 2001).

Stott ‘s (2016) research into 54 UK companies, selected to represent all UK businesses, found that 73% ranked the model as a strategic decision-making tool, 66% perceived lack of alignment between their strategy, business model and processes, but 71% acknowledged the extreme importance of alignment of these elements. This is even though nearly 10 years before Stott’s study, a high proportion of the 765 managing directors who took part in a global business model study shared this evaluation, with financially successful companies attaching around twice as much importance to sustainable business model management as less financially successful companies (IBM, 2007). If these findings are generalisable, this suggests that the area of business model innovation is one where there may be much discussion and awareness, but also much uncertainty as to how effect change.

The link between competitive advantage and choice of business model has been explored extensively (e.g. Zott and Amit, 2007; Amit and Zott, 2001). Stone (1984) documents how Japanese companies used different models to challenge US and European competitors, using ideas from the military theories of Lanchester (1916), the ideas from which were promoted in the Japanese market (Campbell and Roberts, 1986). These ideas included developing an agile and different business model and using it to attack one part of a market at a time by concentrating resources, after splitting the enemy force, and separating targets including distinguishing between smaller competitors that can be attacked and larger competitors against which the company must protect itself.

Economists have suggested association between innovation and business models, leading to “creative destruction” of what we might call old models (Schumpeter, 1994). However, they use terms like ‘modes’ and ‘recipes’, rather than ‘business model’, to discuss how industrial revolutions have been defined by changes in those recipes (Baden-Fuller and Mangematin, 2013).

Despite advances in thought on the processes, drivers and facilitators of business model change (notably Andries *et al.*, 2013; Achtenhagen *et al.*, 2013; Willemstein *et al.*, 2007; Andries and Debackere, 2006, 2007; Bohnsack *et al.*,2014; Mason and Leek, 2008; McNamara *et al.*, 2013;), Saebi *et al.* (2016, p. 1) assert that there is “little knowledge of how organisations adapt their business models in response to external threats and opportunities”, suggesting that failure to adapt business models quickly may occur because managers do not recognise that external changes have occurred. Managerial cognition, especially interpretation in relation to changes in the environment, can be significant in shaping organisational responses (Ginsberg and Venkatraman, 1995; Barr, 1998; Barr *et al.*, 1992; Tripsas and Gavetti, 2000).

Research is divided on whether negative (perceived threat or weakness) or positive (perceived opportunity or strength) framing of events is more likely to motivate organisational response (Saebi *et al.*, 2017). Proponents of threat-rigidity theory argue that perceptions of threat encourage managers to rely on existing routines, while perceptions of opportunity induce more risk-taking behaviour (Dutton and Jackson, 1987; Staw *et al.*, 1981). However, prospect theory predicts the opposite, that under perceived threat, as opposed to more favourable conditions, managers are seen to be more accepting and motivated to take risks (Barberis, 2013; Kahneman and Tversky, 1979). This is known popularly as the “burning platform” situation. Research also indicates that an organisation’s strategic orientation emerges from its experience, with solutions and heuristics resulting in different approaches to organisational change and adaptability (Day, 1994; Gatignon and Xuereb, 1997; Lant and Mezias, 1992). However, organisations and managers oriented to finding new market opportunities might be more perceptive and so better equipped to adapt their business model in face of emerging threats and opportunities than those with more defensive postures (Teece, 2007).

Saebi et al. (2016) assert that adapting an existing business model may be difficult and that adaptation might involve changes to market segment, value chain, value proposition and value-capture processes, along with how these are linked in an architecture. However, adapting a business model may involve uncertainty about outcomes (Andries and Debackere, 2007; McNamara *et al.*, 2013). Saebi *et al.* (2016) suggest that given organisational inertia and outcome uncertainty, organisations are less likely to change model without a strong incentive, even where the need for adaption is apparent, because an organisation’s strategic processes may impede needed model change in response to new market demands or competitive threats.

Research by Foss and Stieglitz (2014) identify that leadership aspects of business model innovation have been poorly addressed in the literature. They suggest that, depending on the innovation, the change could be minor (e.g. market segments, revenue model), or necessitate enterprise-wide change (e.g. processes, activities, employees). So, while different business model innovation types may have different leadership requirements, no analysis was found systematically linking business model innovation types to different leadership competences and organisational design requirements. However, Foss and Stieglitz (2014) point out that some leadership and organisational challenges associated with business models and model innovation have been researched (notably, Teece, 2010; Zott and Amit, 2010; Amit and Zott, 2012; Demil and Lecoq, 2010; Doz and Kosenen, 2010). Still, the literature does not represent well the heterogeneity of business model innovation and the different leadership challenges that different kinds of business model innovation create (Foss and Stieglitz, 2014).

Threats rarely appear from nowhere. Today’s leading companies in information and communications technology and associated services e.g. Apple, Google, Amazon, took years to grow to where they posed a severe threat to competitors. At some stage, it can be argued that information about their success moved from the “interesting” to the “urgent” for companies whose activities they threatened. One issue is the problem of denial, explored in the competitive strategy and military literature (Stone, 2015a). Another theme is timing of threats. For example, in an article concerning the media and telecoms industry, it was suggested that “on the internet, it's always better to jump before you're pushed”, referring to BSkyB’s move to allow consumers to access its content on an ad-hoc basis (through NowTV.com), rather than by subscription, using content from its core business to head off defections to rival services – Netflix, Amazon Prime Video, Apple TV and others (Guardian.com, 2012).

The literature review demonstrates that theories of business model development and business model innovation are still emergent, with many views on how to innovate business models.

# Research methodology

Given that the information used by business leaders to make choices concerning business model is an area where little research had been conducted, the research approach chosen was exploratory. The approach used was grounded theory methodology as developed by Glaser and Strauss (2017).

The grounded theory approach is particularly useful for exploring an area such as business model innovation and its relationship with strategy, given the relatively early stage of development of theory and concepts in this area, and has very recently been used by Faghih et al (2018) in a closely-related and similar-scale study of business model innovation and strategic innovation in information and communications technology firms.

The data was gathered from respondents using unstructured interviews. The interviews were then coded sentence-by-sentence to allow concepts to emerge. As part of the open coding process, categories are further specified in terms of their properties and dimensions of the properties. Properties are attributes or characteristics pertaining to a category whereas dimensions are location of properties along a continuum (Corbin and Strauss, 2008).

The open codes emerged from responses to interview questions. A list of codes was built and compared against transcripts to ensure that a given code was used throughout all the transcripts. These were compared with other responses to the relevant question and those identified as relating to a common theme were grouped to form concepts and subsequently the category. The coding process was followed for all interview questions, to identify emergent concepts and categories based on responses from the interview questions, which sometimes overlap. For example, “competitive service offerings” emerged as an open category expressed through its properties: changing consumer behaviours, competition and internet technology enablement. The views referenced the reflection of competition and internet technology enablement on business model success.

The next stage of the research was “axial coding”, in which the relationships between categories and their properties (Strauss and Corbin, 1990) are identified to “form more precise and complete explanation about the phenomenon” (Strauss and Corbin, 1998, p. 124). This is done by making connections between categories along the lines of their properties and dimensions.

Propositions indicate generalised relationships between a category and its concepts and between discrete categories (Howell, 2013). Through constant comparison, theoretical propositions were generated, refined and validated to describe the interrelationship among categories (Strauss and Corbin, 1998).

# Research findings and discussion

The sample was constructed from six target industries as follows.

* In each industry, two organisations were chosen because analysis of grey literature showed them to be direct competitors (the competitive dyad)
* A third organisation was chosen from that industry because it was a significant player in the sector but not such a direct competitor.

In more detail, the sample was as follows:

* Media – two multiple play companies (broadcast and Internet TV, broadband, mobile telephony, fixed line telephony) and one company focused on broadcasting and Internet
* Information technology – two corporate database system and outsourced management provision and one company focused more on desktop computer and server software
* Retailing – two grocery retailers and one pharmaceutical, health and beauty retailer
* Travel and transport – two airlines and one public transport operation
* Higher education – two conventional universities and one distance learning provider
* Financial services – two insurers and one bank

By simultaneously comparing concepts discussed in the interviews to identify similarities and differences, fifteen open categories emerged in terms of properties and dimensions. They were

* Acknowledging and addressing weaknesses
* Challenges of business model change
* Communication of business model performance
* Competitive service offerings
* Degree of innovation/disruption
* Influence of business model decision-maker mix
* Innovation as competitive advantage
* Measurement of performance
* Motivation for business model change
* Partner satisfaction
* Partnering for competitive advantage
* Relationship of strategy and business model
* Teams/functions to stay ahead of competition and trends
* Understanding client value
* Value of management information.

Table 1 exemplifies the relationship between a category and concepts.

Table 1: Example of concepts and category that emerged through analysis of coding responses to interview question 13

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Category** | **Competitive Service Offerings** | | | | |
| **Concepts included in this category – examples** | | | | | |
| High price umbrella  Internet technology enablement  Changing consumer behaviours  Cheaper alternatives | Web-based demand  Pervasiveness of the web  Increased use of mobile devices and personal communications and entertainment | | Attraction to on-demand TV services  New competition  Challenged positions  Increased ability of consumers web-enabled low-cost model | | |
| Properties | Dimensions – examples | | | | |
| Changing consumer behaviours | Search behaviours | Attitudes to value and quality | Price sensitivity | Changing lifestyles, habits and interests | Stronger ability to comment on company performance using social media |
| Competition | Intensity of competitive rivalry | Threat of new entry | Utility of alternative solutions | Bargaining power of customers | Bargaining power of suppliers |
| Internet technology enablement | Ease of access of customers to own and competitive offers | Ease of marketing new products | Reduced cost of interactions with customers | Improved ability to communicate with customers | Improved ease of working with suppliers |
| Regulatory impact | Quality monitoring | Easing competitor entry | Price regulation | Facilitating customer complaints | Disclosure of sources of profit, problems etc. |

Source: Based on Strauss and Corbin (1998)

The propositions that evolved in this research were:

1. Maintaining market share and competitive advantage and the associated degree of business model innovation and disruption is strongly influenced by leadership motivation for model change. This includes board-level acknowledgment and addressing model weaknesses, sharing of model performance and of the relationship between business strategy and model.
2. Understanding business model performance using management information including partner satisfaction and understanding of client value facilitate and mitigate the impact of the leaders’ motivation for model change.
3. Strategies including partnering and establishing teams to provide management information go some way to supporting board-level motivation for model change.
4. The consequences of above strategies can lead to improved effectiveness of leadership motivation and decision-making on business model management for competitive advantage.

The data for each company were summarised using the categories identified in the research, by competitive sector (Table 2). The researchers used an approach which has already been used in assessing companies in a related area, the deployment of the customer relationship management model (Stone *et al.*, 1996), which emerged as a new model over 30 years ago as a derivative of the direct and database marketing model (Stone and Shaw, 1987). This approach was converted into a tool for assessing whether companies were adopting the model and using it professionally (Stone *et al.*, 2000).

In Table 3 above, the researchers used the detailed results of the interviews to assess the extent to which the organisations were aware of the different issues and topics in relations to the categories identified through coding, and acted upon it.

Table 2: Research summary findings

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Sub category | Category | Leaders in denial or oblivious to issue | Information being received about issue/topic but not being interpreted by leaders for its business model significance | Leaders aware of significance issue/topic but not taking action, whether due to other priorities or not confident of ability to act | Leaders aware of significance of issue/topic and taking action, but not yet clearly successfully | Leaders aware of significance of issue/topic issue, taking action, which is very successful |
| Acknowledging and addressing weaknesses; communication of business model performance; influence of business model decision-maker mix; relationship of strategy and business model | Role of leadership and decision making |  | HE3 | HE2  Media2 | HE1  IT2, IT3  Media1, Media3  Retail1, Retail3  Transp1 | FS1, FS2, FS3  IT1  Retail2  Transp2, Transp3 |
| Competitive service offerings; degree of innovation/disruption; innovation as competitive advantage | Competitive advantage | HE3 |  | HE2  IT3  Retail1  Retail3 | FS3  IT2  Media1, Media2, Media3  Transp1 | FS1, FS2  HE1  IT1  Retail2  Transp2, Transp3 |
| Challenges of business model change; motivation for business model change | Business model change | HE3 | HE2  Retail1  Retail3 | FS3  IT2, IT3 | HE1  Media1, Media 3  Transp1 | FS1, FS2  IT1  Retail2  Transp2, Transp3 |
| Measurement of performance; partner satisfaction; understanding of client value; value of management information | Management information |  | HE3 |  | FS3  HE2  IT3  Media3  Retail1 | FS1, FS2  HE1  IT1, IT2  Media1. Media2  Retail2, Retail3  Transp1, Transp2, Transp3 |
| Partnering for competitive advantage; teams/functions to stay ahead of competition and trends | Improvement strategies | HE3 | HE2  Retail3 | FS1  Retail1 | FS3  HE1  Media1, Media2, Media3 | FS2  IT1, IT2, IT3  Retail2  Transp1. Transp2, Transp3 |

Abbreviations: HE = higher education, IT = information technology, FS = Financial services, Transp = transport

Source: Authors (2018)

During the interviews, how companies become aware of the need for information to support decisions on business model change had already emerged as an important factor. This stemmed from either the proactive drive by the senior team to grow, maintain and perform better their competition or the need to respond to new or newly identified competitor models, and the difficulty, time and expense of doing so. It was this assumption that constant comparison of concepts through the coding and analysis method helped highlight as a key area.

As Table 2 shows, most respondents understood the need for and significance of information for business model choice, with Financial Services, Transport and Information Technology-focused organisations more aware of how to use this information for competitive advantage and growth. The media organisations also tended to be aware, though for different reasons not necessarily wanting to use the information to change model, because of unwillingness to change from existing ‘cash cow’ business models and difficulty understanding the information to inform the necessary decisions. This appeared to link to the desire of leadership to participate in and support the change and their commitment to it. There were several cases where the information was compelling and readily available and was ignored, and this was often linked to cultural practices and mentalities, or the skills, knowledge and experience of the leaders were simply insufficient to process the information. The latter tended to be in Retail and Higher Education.

Many organisations had some idea of these associated challenges and some had established dedicated insight teams tasked with staying ahead of trends and competing models, providing high-quality information that was easy to digest and absorb, to equip the boards and leadership with the intelligence needed to rapidly respond rapidly to challenges. More investigation is needed to understand how to encourage leaders to pay attention to the information and then, if required, act upon it, possibly using learnings from the school of thought associated with the psychology of military intelligence and other leadership theories.

A question that also appeared to need answering is whether the quality and detail of the information is important or whether it is “big picture” material that is important (“the elephant in the room”). In several cases, detailed information was available, but leaders remained preoccupied with the minor details and so could not “see the wood for the trees”. Again, this may be linked to experience and how to interpret the information, but remains a challenge. Appointing a board member focused on insight did appear to remedy this, although one of sufficient experience was not always available.

A clear factor that affected responses was how far an organisation’s industry was affected by technological innovation, particularly in information technology, or by other factors such as market, economic, social or demographic change, as was the case with Financial Services, Information Technology, Travel and Media, whose business models and those of their competitors tended to change with greater frequency.

The speed of leaders to respond was, as might be expected, important in determining whether the organisation maintained or gained market share. Those that delayed often lost competitive advantage, and this delay was often a consequence of not having or of ignoring the information. This problem was not insurmountable, and in some cases the organisation (leadership) learnt from these mistakes and put plans in place to address them and this paid dividends.

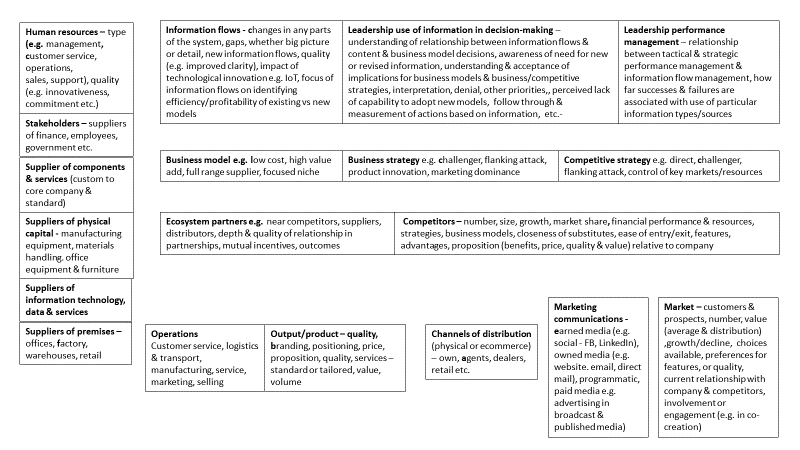
Delays by leadership in acting, for whatever reason, had a direct effect on the extent of business model innovation required (for example, adaptation of model or complete change), the degree of risk and resource commitment required by any change, and the company’s willingness and ability to take on the risk or degree of change. This highlighted the extent to which the organisation’s performance depended on good management of their existing model and how far any new model could leverage existing resources if deployed in a very different way.

In terms of whether management felt capable of managing any new model (whether it knows what to do) and whether it believes its people have the required capabilities and skills, the option of partnering using external suppliers, advisors and widening the ecosystem to help balance and support business functions made a difference, in some cases improving organisational performance by making information available to help leadership be clearer on business model choices.

Another factor appeared to be how the different paradigms of business model innovation and ways of developing business models affected the kind of information required and how it was used by leaders for business model choice, whether resource-based (take good resources and do something new), customer-based (use existing customers and do something else with them), products and services (use existing products and services somewhere else).

The researchers developed the below diagram (as a type of rich picture – see Lewis, 1992) to summarise the scope of the research. This approach has been used extensively in Soft Systems Methodology Mode 2 (Checkland and Haynes, 1994), and although the latter area of methodology was not the focus of this research, there is a reasonable match between the techniques used in soft systems methodology in relation to communicating with respondents to improve accuracy of findings and those used in grounded theory, so it seemed appropriate to attempt to produce a rich picture. The picture should be viewed broadly from left to right and top to bottom, indicating the process of evolution of development and implementation of a business model. However, unlike the rich pictures normally used in Soft Systems Methodology Mode 32, this diagram contains no arrows or links, as the researcher considered that there would be so many bidirectional links that the diagram would end up looking rather unintelligible.

Figure 1: Rich picture approach



# Conclusions and recommendations

The use of the grounded theory approach to theory development led to identification of a core category, “business model management: a decision of leadership” and four other main categories:

* Competitive advantage
* Business model change
* Management information
* Improvement strategies

The categories had sub-categories, providing a more granular understanding of the main categories. The approach allowed confirmation of the barriers to creating new business models, for example leadership knowledge and experience, and how leaders overcome them, for example, by appointing dedicated insight leaders, mobilising the insight team and partnering for competitive advantage and the importance of equipping leaders with the skills to assess the information needed to manage business model choice.

The findings might be considered high level and perhaps obvious to business model decision-makers, but the detailed sub-categories provide useful insights into how leaders make model decisions. The assessment methodology proposed could provide a useful supplement to methods that leaders use to make business model decisions, but would first require testing with the interviewees.

## Recommendations for future research

The coverage of this research could therefore usefully be replicated with further grounded theory studies, until a consistent picture is obtained, allowing for the ways organisations of different sizes and in different sectors make business model decisions and how these are influenced by how leaders use information. Several further studies should be undertaken, in different countries and in different sectors, with organisations of different sizes (all the organisations in this study were large or even extremely large, with a minimum turnover of £50m – the small university, and in some cases tens or even hundreds of billions of pounds in the case of several other companies). The above might be required to achieve convergence in the results. Once this is done, then it would be possible to use more deductive methods of research, using a more structured, hypothesis driven approach.

A study of how business model innovation by start-ups is influenced by the information possessed by their leaders/owners would be particularly interesting, as most large companies in this study began their lives as start-ups with radically different business models from incumbents in their markets, rather than as large companies who added or switched to a new business model. It could be argued that smaller companies have less access to market information than larger ones, but might be “closer” to the customers and suppliers whose cooperation is likely to determine the success of failure of their business model innovation i.e. the information they use is about individual cases rather than large market-level studies, so the outcomes of such research might be very different.

The focus of this article was primarily on information use as related to business model choice and change. It has not been placed in the context of how business leaders use information in general. One of the known problems in strategic decision-making processes (which include decisions on strategy and decisions on business models) is identification of whether information does have strategic implications and if so which – the problem of being able (or not) to “see the wood for the trees). Due to developments in information technology, business leaders now have access to far more information than previously, both about what is happening in their own organisations and about the outside world. Although many easily comprehensible ways of portraying this information have been developed, this does not solve the problem of information overload, although it could be argued that through good processes and learning, leaders will learn to identify which information they need for business model change decisions. However, it could also be argued that the very nature of business model innovation sometimes means that the information required is of a new type and so not routinely accessible to leaders, or else it could be existing information requiring new interpretation. This area therefore needs further research.

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