Modeling Mobile Business

MeMo: Meta-Business Model for Mobile Services

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1. The Mobile Service Industry in Need of New Business Models

Over the last few decades, new market conditions and technological advances have characterized the dynamic environment of the mobile service sector and challenged existing views on business models. As the advent of the Internet and related technologies has changed the way we conduct business, interest in business models has increased among managers and scholars. As such, we have seen a rapid emergence of various business models in the mobile service sector, formed to meet a context that is typically more complex than those of traditional businesses. Extant research has also indicated a need to develop sustainable business models. Therefore, understanding, designing, and managing business models have become uniquely important issues in view of relatively new and rapidly evolving sectors such as the mobile services industry.

Today’s mobile environment has been compared to the early stages of the wired Web, given its fragmented network, applications, and device platforms. Further, networks of cooperating firms continue to develop and provide value networks to companies in the mobile industry. The move toward value networks implies a transition from closed to open innovation; meaning that innovations can move easier between the firm and its surrounding environment. Research indicates that new business models are of central importance in open innovation. In addition, while researchers have traditionally viewed business models traditionally as simple, static concepts, recent studies have recognized that they rather are dynamic and complex. Hence, in the quest for creating successful innovations, financial performance, and growth, the mobile service industry is currently facing a challenge where creativity and flexibility are confronted with standardized and stable structures.

Against this backdrop, this team conducted the multidisciplinary research project MeMo. The objectives were to identify and describe business models for mobile services and suggest a meta-business model intended create future efficient businesses for mobile service providers.

2. Method

Since the current project aimed to present a meta-business model for mobile services, it was crucial to use a broad methodological approach that incorporated many different stakeholder perspectives as well as broad range of data collection methods. As this subject has been relatively unexplored, academically, it was also important to use an iterative process where theory and empirical studies reinforced each other. Furthermore, the researchers conducted the empirical studies throughout the entire project in order for previous studies to inform and guide subsequent studies. In the following, we present the different types of data collected and the purpose behind these data collections.

Literature Study

The project began with a literature review of the interdisciplinary research field of business models, both in general and in particular, that are connected to the mobile service industry. A central question was how business models have been studied within different fields of research. The findings from this literature study were used as a theoretical base throughout the research project. Further, this study helped frame the various empirical studies, define the research questions, and develop the interview questions and questionnaires. Though the main parts of the literature study were conducted at the beginning of the project, updates were made continuously. After the literature study, we conducted several empirical studies, which are summarized below.
**Empirical Studies**

1. An exploratory and longitudinal study of a pioneering SME in the service sector that entered the mobile market via the iPhone market. The aim of this study was to explore important business model features related to the mobile market. The study was based on 5 discussions/semi-structured interviews that resulted in 7-8 hours of interview with a start-up owner. Together with the literature study, this empirical study helped frame future studies.

2. Semi-structured interviews and discussion forums with over 50 mobile service development companies in Sweden, the UK, and the U.S. The aim of this study was to describe the characteristics of these companies, their different business models, and their views and relations to third-party development platforms for mobile applications.

3. Survey of mobile consumers consisted of collecting 1,052 questionnaires that covered three different services. The aim of this study was to collect quantitative data on desired customer value of mobile services, willingness to pay for such services, and customer characteristics (i.e., mobile-related behaviors, involvement in mobile phones, and personal innovativeness).

4. Semi-structured interviews with five managers of small mobile service developer firms focused on the components of the firms’ business models, core resources, and contingency factors.

5. Five interviews with top managers from two operators were conducted to understand the business models of these operators as well as how these business models have changed over the past years with the introduction of internet surfing, mobile services, and new players (e.g., Google and Apple).

6. Longitudinal interviews and in-suit real life observations of financiers’ assessment work of business models and their decision-making. These interviews and observations were carried out over a period of two years with eight financiers. The purpose with this study was to capture which components of business models are assessed, how they are assessed, and the consequences of access to financial capital as a result of the assessments. This included identifying the importance of disclosure of business model information in decision outcomes.

7. Interviews and cognitive mapping of multi-entrepreneurs’ business models within the mobile service sector. The purpose with this study was to map and analyze both current and future business models, how such business model are used and development, and central factors behind the business models. This study was based on 69 business models in the mobile service industry.

Findings from the MeMo project were used in the development of a meta-business model intended for use by key actors in the mobile service industry to create and capture value via collaboration. Project results have also, in close cooperation with SMEs in the mobile service sector, brought forward a practical tool for business model development. This tool aims to be used by researchers to guide companies in their business model development in close cooperation with companies.
3. Drawing the Map: Main Actors

Until a few years ago, the mobile application market was primarily managed and controlled by mobile network operators, mobile phone manufacturers, and some mobile application and content providers. Additionally, the value network included many actors who intervened throughout the value creation. However, things have begun to change with the introduction of proprietary third-party development platforms, such as those of iPhone and Android. These platforms have opened the mobile service market and market structure and have played a role in the evolution of value networks. For example, platform owners have become new and powerful actors and a new, and standardized, value network had begun to develop.

Today, the mobile service sector still involves several actors, who differ with respect to their roles in the value network and in terms of their size, strategies, and business models. As shown in Figure 1, the main actors within the Swedish mobile service sector can be clustered into six major categories (i.e., “backbone” companies, application/service developers, platform and channel firms, content providers, supporting services, and end customers). The “backbone” consists of companies who build networks and infrastructure, operators who provide these networks, and firms that develop and manufacture handsets. Put simply, these players supply the prerequisites for application and service developers, who represent another important category of actors. Further, due to the launch of third-party development platforms, a large number of micro-companies (1-10 employees), individual developers, and hobbyists have entered the market. As such, since the launch of Apple’s iPhone and AppStore in 2009, the global market for mobile applications has grown tremendously.

![Figure 1: Main Actors in the Mobile Service Sector](image-url)
4. What’s Stuff Made Of? Components of Dynamic Business Models

Generally speaking, business models define the logic of the firm and reflect its business strategy. By identifying and developing the different components that, together, constitute a business model, managers can attain a better understanding of how and where value is created and captured. Hence, through dynamic and innovative business models, managers can increase value for the firm and its stakeholders, who include customers and external financiers, which will result in a competitive advantage.

In recent years, business model development has been partially driven by trends of open innovation in services, such as shifting from product to service, user empowerment in innovation, etc. (Nedimovic, 2009). These trends have contributed to the importance of understanding the impact of contingency aspects on the development of business model components and designing sustainable business models. To illustrate this impact, we propose a conceptual dynamic business model (see Figure 2) that extends earlier frameworks on business models by adding contingency aspects and the view of core resources into a dynamic business model. This extended model is based on empirical findings from the MeMo project. Of note, one sector that has been exposed to a rapid pace of change is the mobile service sector.

Two main contingencies are proposed in the dynamic business model: (1) pace of change regarding technology development and industry characteristics and (2) regulatory constraints. Specifically, the mobile service industry is characterized by discontinuity in technological change and a high degree of technical uncertainty driven by highly complex technological systems, short product development-to-market cycle times and short product life cycles. Further, as argued by Jones et al. (2000), the number of competitors increases rapidly as firms identify opportunities within the market.

Figure 2: Dynamic Business Model

As with all types of context, human, social, and financial resources are important for designing a sustainable business model in an open innovation context. In the mobile service industry, access to a useful social network has proven important, particularly for SMEs in the mobile service sector. Human resources, composed by e.g. the founders, appear crucial in compensating for financial constraints (cf. Honig, 1998). Entrepreneurs in SMEs who lack basic resources (i.e., human and financial capital) tend to mobilize support within their social networks (Brüerl & Preisendörfer, 1998). Our findings suggest that entrepreneurs with experience from similar businesses may bring relevant knowledge and relationships that
significantly reduce the liability of newness\(^1\), which appears especially important when the pace of change is fast.

The maturity of the offerings provided, or stages of product life cycle, may also affect access to resources, in particular, financial resources to invest in value creation and a financial model for revenue generation, cost structure, and profit potential. The financial model is, for instance, displayed on the financial statement while financial resources are displayed on the balance sheet. An important issue to address is the chicken-egg problem of finance and gaining access to resources to enable the development of a sustainable business model. Networking and collaboration may generate resources for this process and may help decrease the cost of human capital, administration, customer relations and customer channels, and provide a scale economy that, in a long run, may increase turnover for key partners in line with bootstrap financing\(^2\). Sharing resources among network partners may also be a possibility to avoid high costs and spending energy on seeking external financing.

However, from a long-term perspective, constrained financial resources may result in companies being outdistanced by copycats (of mobile applications) who imitate and quickly innovate business ideas. Therefore, firms that lack financial capital during their developmental period face significant competition difficulties, especially in an open innovation context. For example, such firms are at a higher risk of being out-innovated by financially stronger firms. As such, the proposed business model deals with both short- and long-term perspectives to enable the management of resources and develop activities and businesses that fit within the current available resources and planned future resource acquisitions. While human, social, and financial resources are seen to influence all components of the business model, the relationship is reciprocal as decisions regarding these components define what type of and how many resources will be required.

**Business Model Components**

The value proposition explains that value is created for users by the offerings of the product or service. That is, which of our customers’ problems will we help solve? Which customer needs will we satisfy? Which bundles of goods and services will we offer to targeted markets or market segments? Importantly, value is perceived and determined by the customer, which means that firms can only propose value. Additionally, customer value is generally considered a trade-off between perceived benefits and perceived sacrifice of the offering (i.e., what you get vs. what you give). Therefore, developers can increase the value to the customer by creating or increasing benefits or by decreasing sacrifice (e.g., lower price, less effort and inconvenience, reduced risk). As customer value is contextual, specific benefits and sacrifices must be assessed for each product or product category. However, since many mobile service developers lack a clear view of who their customers are, they are also unclear about their customers’ problems and needs. On an overarching “meta” level, the independence of time and place is the primary benefit of mobile services, such as mobile applications; however, specifically formulated value propositions for applications or services are usually lacking.

Rather, for developers, the value creation at the company and application level tends to merge. When it comes to packaging different offerings we identified a large variety among developers. Specifically, the majority of developers has a broad range of offerings in their application portfolio and argues that it is very difficult to focus on only one or two application categories.

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1 Liability of newness means a greater risk of failure of a new organization compared to an older organization.
2 A collection of methods used to minimize the amount of outside debt and equity financing needed from banks and investors.
However, some developers have managed to specialize in a certain type of offering, such as games, well-being applications, or audio books. To date, there are few examples of bundled offerings from developers regardless of a narrow or broad application portfolio, even while we do see tendencies toward these offerings. Some developers also offer value propositions on two levels; to their business customers and to the business customers’ customers.

Understanding which value dimensions are more important for customers (i.e., the desired value of the offering) enables companies to make more effective targeting and marketing communication decisions. For example, our consumer survey showed that for the three studied applications, emotional benefits (e.g., entertaining, fun to use) and functional features (e.g., easy to use, consistent quality) were generally rated as considerably more important than social aspects (e.g., giving a sense of belonging, an opportunity to get to know others). However, there were significant differences between the three services in terms of how important different features/benefits were and which could be explained both by disparities between the services and variations among the customers. This means that the firm must consider which benefits (from a customer perspective) should be communicated, in what way customer segments differ, and which benefits should be aimed at each segment.

As Figure 3 indicates, it is also important to determine the threshold for functional features. That is, it is probably not sufficient to provide an easy-to-use and reliable service – such features are likely to cause dissatisfaction if they are not present, but may not delight the customer by their mere presence. Rather, firms need to determine which benefits are critical success factors that differentiate their service from competitors’ services by delivering superior customer value. Moreover, as customers compare price, not only to similar services but also to substitutes (e.g., games for computers or consoles), the price either should be lower than available alternatives, or the delivered value should be higher. Finally, it should be noted that benefits/features that, today, provide a differential advantage are likely to become threshold features over time. Therefore, continuous development and improvement is essential.

Target market decisions require specifying to whom the value proposition should be aimed. That is, for who is the offering useful and for what purpose? Results from the current project suggest that service developers who focus on business customers often have a relatively clear view of segment and target groups. These individuals also have a close relation with their customers and traditional customer contact is common. Further, developers of consumer services seem to have a vaguer picture of who their actual and potential customers are. Concerning platform developers, this unclear view can be explained by the fact that the

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3 A music game, a streaming audio-book service, and a position-based shopping service.
platforms offer a given consumer base in combination with a broad reach of certain types of applications. Developers do, however, have a rather good perception about the market potential of different platforms and mobile devices. Additionally, developers are well aware of what type of value the development work creates for themselves; that is, making money, personal learning and development, and the pure “joy of development.” Perhaps, due to their close relation to (or identification with) their jobs, developers tend to use themselves, friends, and families as references in application development. However, market research in the traditional sense seems to be rare.

Considering that customers have specific needs and wants in relation to certain services and applications, it is important that developers improve their knowledge of their target market and the value propositions of each service/application. With regard to the development process, this could mean that developers involve customers/end users to a larger extent in development activities that presently involve only friends and families. To find relevant target groups, firms should conduct market segmentation based on, for example, benefits sought or personal characteristics such as innovativeness (i.e., the willingness of an individual to try a new information technology).

The structure of a firm’s value chain specifies which key activities are required to create and distribute the offering. Thus, this business model component includes “make or buy” decisions. For mobile service developers, technology development, as pictured in the traditional value chain below, could be seen as part of operations.

![Value Chain Diagram](image)

While finding engineers for programming tasks may not be very difficult, many mobile service companies lack competency within the areas of artistic graphic design and marketing. Hence, there could be an opportunity for businesses to specialize in these areas. As such companies could form clusters to gain access to such competencies. Currently, the main efforts within marketing and sales, concerning consumers, seem to be by attempting to reach visibility on the sales charts (e.g., AppStore top 25), customer recommendations, professional reviews (which are seen as important since they can create hype), and social media (to maximize exposure to customers).

Marketing and sales, as well as outbound logistics (i.e., distribution), have partly become standardized due to the growing number of applications delivered via platforms such as Apple’s AppStore and Google’s Android Market. While this, in a sense, has simplified the value chain, developers often feel they know too little about platform owners’ strategic decisions, which
affects their ability to make their own strategic decisions. Moreover, developers perceive that platforms make it difficult to communicate with users/customers. While there are some possibilities for developers to be visible on the platform if they manage to be included in one or more of the available top lists, it is the marketing channels that these developers are most dissatisfied with. Hence, for developers, the marketing of an application is a major activity in the development process, besides the coding of the application. Further, many developers request better communication channels with their customers as well as the possibility to cluster customers according to different criteria such as age, nationality, device, etc.

As a consequence of undefined segments and target groups, after sales services, in terms of customer relations, is quite underdeveloped. The majority of customer relations seem to be connected to the development process, including idea generation, beta testing, and user feedback. Existing customer relations for B2C services are primarily maintained via the Internet; for example, via feedback forms and e-mail, while B2B firms also use traditional personal selling and visits to their customers. However, since developers usually do not have a formalized or explicit business model, it is quite difficult to identify the connections between the business model and their after sales service/customer relations.

The financial sustainability of the business model is analyzed through an assessment of the financial model, which outlines the revenue generation, cost structure, and profit potential (given revenues and costs) of the service or firm as displayed on the financial statement. Increasing revenue is central for a sustainable business model. However, equally important is cost management (e.g., to further decrease the cost structure), balancing the goals of expansion, and cost structure that should reveal how direct and indirect costs are allocated and whether it is possible to reach economies of scale.

Regarding revenue generation, a firm must consider questions such as: Which benefits are customers really willing to pay for? What are they paying for today, and in what way? How would they prefer to pay? How much will each revenue stream contribute to total turnover? Revenue mechanisms for mobile applications today include per-unit sales, in-app sales, subscriptions, licensing, and advertising-sponsored models. As Distimo (2011) noted, the growing share of free application downloads seems to have caused developers to shift to other revenue models than charging per unit. For those operating via platforms such as Apple’s AppStore and Google’s Android Market, revenue channel and share of revenue streams have become standardized (e.g., Apple charges a fixed ratio of 30% of revenue). On one hand, this simplifies part of a developer’s business model, while, on the other hand, it limits flexibility in pricing decisions.

It is well known that “The way in which a firm prices its products or services holds the key to its success or failure” (Cunningham & Hornby, 1993, p. 46). Accordingly, pricing is a key challenge for developing a sustainable business model. From an accounting perspective, full cost of offerings are the base for pricing, at least for long-term pricing decisions, which is the case in reaching sustainability. Conversely, basing price on variable costs is only a short-term solution. In addition, an important dimension of pricing to consider is the competition-based dimension, which means that the price of a mobile service is set based on a chosen strategy in relation to the competitors’ pricing structures.

From a marketing perspective, customers “buy on the basis of perceived value, not what it costs the seller to produce and have the product available for sale” (Monroe, 2003). Therefore, customers’ willingness to pay (WTP) can be viewed as an indication of perceived benefits. High perceived risk, or poor understanding of benefits, can lead to lower WTP. In addition,
perceptions of the price as unfair can result in lower perceived value and a subsequent decrease in willingness to pay. Results from our consumer study suggest that customers are prepared to pay for primarily some emotional and functional benefits; however, the willingness to pay is also affected by the price of available alternatives. For example, perhaps because of the higher level of intangibility (lack of physical artifact), customers expect to pay less for access to audio books in a mobile application than they do for an audio book delivered on a CD or as a downloadable file. The study also indicates that customers think it is important that services provide different payment methods (e.g., invoice, credit card, and SMS).

Hence, it can be argued that to realize profit potential and achieve a sustainable financial model, pricing decisions should be based on a combination of target customers’ willingness to pay, competitors’ pricing structures, and the full cost of offerings. That is, the firm has to consider how much it must charge to deliver the value proposition. As indicated earlier, benefits/features that, today, provide a differential advantage are likely to become threshold features over time. Therefore, to make viable pricing decisions, it is very important that firms clearly communicate the benefits of mobile services, especially considering the growing share of free downloads. However, project results indicate that pricing is often only competition-based; that is the price is set primarily based on the price of competing services/applications, price of substitutes or similar offerings, and/or the general price level of mobile applications.

One function of a business model is to describe the position of a firm within the value network that links suppliers and customers and includes identification of potential complementors and competitors. Results from the MeMo project suggest that value networks of companies within the mobile service sector vary with respect to which actors are involved and which roles and positions these actors hold within the network. As the industry gradually becomes more mature, the roles of different actors also begin to become clearer. For example, Google previously considered building network/infra-structure and TeliaSonera had ideas about creating applications/services to end customers. However, both companies have abandoned these positions with the same notion; there are other actors better suited for these roles.

In addition, the advent of platforms for development and distribution, such as Google’s Android and Android Market, and Apple’s iOS and AppStore for iPhone, has contributed to the change of value networks. In particular, companies that develop applications based on such platforms have been affected. Further, the use of platforms standardizes some components of these firms’ business models. This means that, while parts of developers’ value networks are already offered via the use of platforms, companies that do not develop platform-based applications must find solutions that include every task or role that is handled by the value network.
5. Moving Beyond Business Model Components – Advancing with Business Model Management Strategies

Business model management is critical in the development of sustainable business models aimed to launch successful innovations and reach high financial performance and growth. This is particularly critical in the mobile service industry since this industry stands in front of a challenge where creativity and flexibility are confronted with standardized and stable structures. Many researchers emphasize successful business models; however, it is not simply meeting the challenge to put together a well combined and well designed business model because, while a business model can be more or less sound and coherent, it may not necessarily be successful per se. The subsequent challenge is to manage the business model at work. A high potential business model can be managed poorly and fail, just as a low potential business model may succeed because of competent management, at least in the short run. Nevertheless, both well designed and well managed business model provide the best circumstances for high performance and sustainability. Therefore, we contribute to the research field by proposing a framework to advance business model management in the mobile service sector. Specifically, business model management includes the modeling of the business model and the component fit and strategic positioning of the model in the marketplace. This involves both structuring and management of the resource stocks and flows.

Thriving on Business Model Management Strategies

Business models play a positive and powerful role in the successful management of SMEs within the mobile service sector. However, business models in SMEs that act in the mobile service sector are seldom formally expressed. Instead, they exist inside the entrepreneurs head on a more or less conscious level. The business models and factors that affect these models are typically abstract and unconscious notion of the entrepreneur and, thus, are also tacit and difficult to capture. Therefore, theories and methods from psychology are useful to gain access to an entrepreneur’s more or less conscious knowledge of his or her business model design and management. As a result of the multi-entrepreneur study, an instrument for a meta-business model, the MeMo tool was developed to advance business model design and management among mobile service businesses. An overview of the MeMo tool is presented below.

Heterogeneity in management of different types of business models within the mobile service sector is important for sustainability. Dynamic business models are heterogeneous in their design of components and stock and flow of resources to create and capture value, which must be acknowledged in the management of a specific business model. Therefore, we provide guidance on development of business model management strategies. Specifically, three categories of business modeling were identified in the multi-entrepreneur study, including a total of six types of business model management strategies that are important to navigate the design and management of a business model towards sustainability (see Figure 5). These business model management strategies provide assistance to entrepreneurs and enable entrepreneurs to reflect on their business model design and how to deal with its development.
Conducting an assessment of the business model management strategy will inform on the present status of the business model and on what necessary next steps to get from “here to there.” Thus, to advance the business model, an assessment of the current state must be conducted within the business model framework. The key management issues to improve the business model depends on the current business model in terms of: 1) Comprehensiveness management, 2) Risk management and 3) Resource management. The Comprehensive management strategy is characterized by various levels of complexity, uncertainty, and variation. The Risk management strategy is characterized by various types of risks; for example, business risk, market risk, financial risk, and social risk. Finally, the Resource management strategy is characterized of various types of capital; for example, financial capital, social capital, human capital, and technological capital. The complete set of 27 key factors and their interdependence was identified and analyzed and revealed meta-business model structures. Below, the business model management strategies and the most significant attached key factors are presented with the intention to provide guidance in business model assessment. Of note, these strategies are by no means exhaustive.

The first category of business model management strategy concerns its comprehensiveness on a scale from “Demanding” to “Simple.” To identify the current and targeted position of the business model on this scale, we must analyze a number of key factors. The five most significant key factors include levels of uncertainty in the products/technology, levels of information use, possibilities to influence the revenue model, levels of complexity in decision-making processes, and levels of use of external venture capital. One example of a typical business model that fits the polar end of a “Simple” business model management strategy is a straightforward and uncomplicated mobile app sold through, for example, Apple’s AppStore.

The second category of business model management strategy deals with risk management as expressed on a scale from “High risk” to “Low risk.” Here, the five most significant key factors include levels of technological focus, levels of business risk, earnings from a time perspective, levels of use of social networks, and levels of capital intensity. One example of a typical business model that fits the polar end of the “Low risk” business model management strategy is a mobile service consultant firm.
The third category of business model management strategy covers resource management as expressed on a scale from “Extended” to “Limited” resources. The five most significant key factors in this category include levels of use of external sales channels, levels of internally generated financial means used to finance the business model, levels of use of social networks, levels of front edge competence, and levels of use of external competence. One example of a typical business model that fits the polar end of “Limited” resource business model management strategy is related to products such as “ring tones” that are distributed directly to end users.

These business model management strategies cover, for instance, the financial process (including the financial resources and financial models), competence of the acquisition process, innovation process, business intelligence process, and organizational process. Further, these strategies help the entrepreneur deal with stability and flexibility in both business model design and business model organization to achieve a sustainable dynamic business model.

**To Tell or Not to Tell the Business Model: Balancing the Revealing of Business Model Information**

The mobile service sector is characterized by high innovation intensity, short product lifecycles, and an immature market where customer needs are unclear. These characteristics generally generate capital-intensive business models. The three business model management strategies also prove this by the financial key factors being among the most significant factors identified. Nevertheless, the Demanding strategy, identified in the multi-entrepreneurs study, is particularly capital-intensive and is highly dependent on external finance. Thus, access to external finance is a particularly intricate problem for mobile service businesses that use this strategy. This is also supported by the study of external financiers. Innovation in Demanding business models is often expensive and, over the last decade, business models pitches have become central for attracting funding, particularly within the mobile service industry. Finally, accessing external financial capital requires a high business model transparency, which could potentially weaken the competitive advantages of the venture.

In the context of the “Demanding” business model management strategy, the degree of transparency of business model information can be expected to be low due to external and internal uncertainty, fluctuations, and complexity. Cause and effect relationships may not be easily prognosticated; particularly, not by external parties such as financiers who may have limited access to insider information. This low degree of business model transparency increases the SME’s cost of capital since financiers become reluctant to finance SMEs in the mobile service industry. Therefore, the costs of capital may become expensive for a SME. To deal with this situation, SMEs in the mobile service industry need to disclose information to increase the transparency of their business model to external financiers, which may result in accessing finance at a lower cost of capital. However, disclosing core information of a business model to financiers, such as venture capitalist investors, can be risky since they often refuse to sign non-disclosure agreements (NDA-agreements). Venture capitalists often claim that such agreements would restrict their ability to syndicate with other financiers who might co-invest in the firm. This implies an absence of legal agreements on business model information disclosure that prevents venture capitalists to distribute information about promising innovations and business models to competitors and/or use the information for their own portfolio companies.

In this, SMEs in the mobile service sector are faced with a business model management dilemma in terms of the degree of business model transparency. On the one hand, SMEs must protect their business model core (i.e., their innovations and technology), as much as they can
to prevent their competitors from stealing their ideas and innovations. On the other hand, to survive and grow, SMEs in the mobile service industry need to access external financing. Such access requires them to disclose information about the core of their business model, which often takes place before any intellectual property rights are settled. Therefore, SMEs need to make a trade-off between access to finance to a low cost of capital and the risk of revealing competitive advantages. The trade-off consequence, due to degree of business model transparency, will impact the possibility to achieve opportunities for venture growth. More specifically, the trade-off is either losing competitive advantages or missing out on exploiting potential growth and innovation opportunities due to the high cost of financial capital. As such, it is a challenge for SMEs in the mobile service industry to manage business model transparency and strike the right balance in the trade-off.

One lesson to learn in managing business model transparency is that SMEs in the mobile service sector can be too open or too closed. If they share the wrong information with the wrong people, they may critically harm the business; however, if they do not share the right information with the right people they may also critically harm the business.

**The Path to High Profitability Business Models**

Previous studies on business models have neglected the critical link between business models and firm performance, despite the typically taken for granted assumption of the importance of business models for firm performance. Findings from the multi-entrepreneur study provides evidence for this critical link and, thus, proves that identifying and analyzing current and future business model management strategy positions is not trivial. Such conscious identification and navigation among strategies and attached key factors has proven to be important for high firm performance. Specifically, entrepreneurs who are able to cognitively sort clearly among these key factors will conduct more nuanced, focused, and fine-tuned actions for value creation and value capturing, which is critical for reaching high profitability and, thus, high firm performance.

**Getting from Here to There: The MeMo Tool**

Business modeling is a continuous process with continuous requirements to improve and adjust to sustain a competitive advantage and high firm performance for mobile service businesses. Using the assessment possibilities of the key factors and the business model management strategies can provide opportunities to identify the current state of the business model as well as the next steps to advance the business model. The X-ray provided by the MeMo tool, as a result of the multi-entrepreneur study, supports the notion that participating SMEs accomplish both efficiency and efficacy in a constantly changing dynamic mobile business environment.

To determine, in detail, the exact position of the business model among the business model management strategies and to figure out how to accomplish the next set of strategic activities to get from here to there, the MeMo tool (presented in Section 5) is useful. It enables a visualization of critical factors for the development of business model management strategies, advance the business model, and assist in tailor-making the development of business model management strategies. The comprehensive and well structured MeMo tool covers all important strategy factors. Additionally, the MeMo tool assists in the investigation of critical criteria and compiles a complex and comprehensive business model jigsaw puzzle in an objective and comprehensible way. In feedback contacts, the initial results of the analyses with the MeMo tool are further elaborated and explored on in order to sort among business model factors and tailor-make a plan to advance business model management strategies.
The MeMo tool enables users to immediately identify and analyze the specific and unique circumstances involved in the individual business models. Further, this tool assists in increasing awareness of the business model as a whole; both its potential and problem areas. The MeMo tool also challenges settled and, more or less, hidden structures in business model management strategies and requires participating SMEs to clearly and systematically reflect on the business model management strategies. Accordingly, the MeMo tool supports SMEs in the mobile service industry in their development of competence to manage sustainable businesses to create and capture value.

The MeMo tool provides a solid foundation for planning the design of future business model management strategies and can, thus, help to set the compass straight and increase clarity in business model factor patterns as well as sort among business model factors. As noted above, being able to cognitively sort among business model factors leads to more nuanced, focused, and fine-tuned actions, which is important to reach high profitability. Focus may, for instance, be on the management of complexity of the business model (e.g., radical innovation), on risk management (e.g., high risks: financial, business, and market), and management of resources (e.g., in resource intensive innovative businesses).

6. The Conceptual Meta-Business Model

The conceptual meta-business model summarizes areas discussed in this white paper to achieve dynamic and sustainable business models (i.e., key actors in the mobile include service industry, business model management strategies, and business model components). The conceptual model illustrates two sides of business modeling: mobile service businesses’ value creation and capture, as well as their communication of, and thus disclosure of, value creation and value capture to external stakeholders.

**Figure 6: Conceptual Meta-Business Model**

![Figure 6: Conceptual Meta-Business Model](image)
7. **Highlights: How to Design a Sustainable Business Model?**

- Create value based on customers’ problems and needs in concert with an assessment of specific (customer-perceived) benefits and sacrifices for each product or product category. Developers must specifically formulate value propositions for the particular mobile service, such as mobile applications.

- Enable the company to make more effective targeting and marketing communication decisions by understanding which value dimensions are more important to customers. Companies need to consider which benefits (from the customer’s perspective) should be communicated, in what way customer segments differ, and which benefits should be aimed at each segment.

- Determine which benefits will be critical success factors that differentiate the company from its competitors with respect to delivering superior customer value.

- Develop and improve mobile services and applications continuously. Benefits, or features, that today provide a differential advantage are likely to become threshold features over time. This implies that companies in the mobile service industry must determine the level of threshold for functional features on a consistent and regular basis.

- Improve developer knowledge about target markets and the value propositions of each service/application. Further, developers must bear in mind that customers have specific needs and wants in relation to certain services and applications. Customers could be involved largely in the development process.

- Utilize the opportunity to segment the market for mobile services and applications based on benefits sought or personal characteristics such as innovativeness (e.g., the willingness of an individual to try out any new information technology).

- Find an opportunity in specializing in areas in which there is a shortage of skills within the mobile service industry (e.g., artistic graphic design and marketing). This can be accomplished by forming clusters to gain access to such competencies.

- Utilize social networks to become flexible in the business model design and adjustable to the contingency aspect “pace of change regarding technology development”.

- Base pricing decisions on target customers’ willingness to pay, competitors’ pricing structures, and the combined total cost of offerings. Customers’ perceptions of benefits and features change over time, which suggests that to make viable pricing decisions, companies must clearly communicate the benefits of mobile services. This is particularly important considering the growing share of free downloads.

- Find solutions that include every task or role handled by the value network. This is particularly important for companies that do not develop platform-based applications.

- Identify current business model components and combinations of components. Next, identify and formulate proper business model management strategies for business model development. This is essential as clearly sorted and formulated business models and business model management strategies receive positive implications on firm performance.
• Increase company awareness of critical disclosure information and the consequences of either disclosing or not disclosing information. This is important because dealing with the matter of business model transparency is an intricate question in disclosure of business model information.

• The MeMo tool is intended for use in business model development and the development of business model management strategies. It is a tool that may help mobile businesses reach higher performance by increasing clarity of the work process via business modeling and thus also to increase external stakeholder clarity of business model communications.

References