The Concept of Business Model Scalability

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Abstract

The power of business models lies in their ability to visualize and clarify how firms' may configure their value creation processes. Among the key aspects of business model thinking are a focus on what the customer values, how this value is best delivered to the customer and how strategic partners are leveraged in this value creation, delivery and realization exercise. Central to the mainstream understanding of business models is the value proposition towards the customer and the hypothesis generated is that if the firm delivers to the customer what he/she requires, then there is a good foundation for a long-term profitable business. However, the message conveyed in this article is that while providing a good value proposition may help the firm 'get by', the really successful businesses of today are those able to reach the sweet-spot of business model scalability. This article introduces and discusses the term scalability from a company-level perspective. It illustrates how managers should be using this term for the benefit of their business by focusing on business models capable of achieving *exponentially increasing returns to scale.*

Keywords: Business models, scalability, growth, flexibility, configurations

INTRODUCTION

It is the prime responsibility of any company director to optimize the competitiveness of his/her business. Understanding how best to configure the company is a prime mechanism in creating profits in the short term and in the long term, in due course also creating jobs and thereby wealth in society. Many basic textbooks in economics, business, management and marketing introduce students to the concepts of scale and scope. Whereas economies of scale for a firm primarily refers to reductions in the average cost per unit associated with increasing the scale of production for a single product type, economies of scope refer to lowering the average cost for a firm via product diversification, i.e. producing two or more products.

In applying these two concepts to the study of American industrial history, Chandler *et al.* (1990) argue for ways of positioning an organization in relation to the market offering. It seems natural to align these ideas to how a company proposes to make money and such thoughts are not alien to the present debate in the field of business models and the related action of business model innovation. When the word scalability is used in the context of running a company, it implies that the underlying business model offers the potential for economic growth within the company.

In relating the concept of scalability to business models in this manner, a couple of interesting questions arise: Are there degrees of scalability evident in contemporary business model configurations? Under which circumstances is the relationship between scale and scope of particular importance? Hence, it is the objective of this paper to analyze the concept of scalability in relation to growing a company and relate this notion to the specific business model configurations being employed by businesses. In this setting scalability is applied in a slightly different manner than in Chandler *et al.*'s (1990) conceptualization of competitive focus. This paper discusses the dimensions of scalability in the context of business models and creates a roadmap for understanding and analyzing scalability. In turn, it provides input to contemporary understandings of business model patterns, archetypes and configurations as well as practical insights for managers and owners of SMEs and newly created ventures.

THE CONCEPT OF SCALABILITY

The adjective 'scalable' means "Able to be changed in size or scale" (Oxford Dictionaries), hence we use the term scalability to denote a state where change in size is achievable. In the context of IT infrastructure, Bondi (2000) argues that, "Scalability is ability of a system, network, or process to handle a growing amount of work in a capable manner or its ability to be enlarged to accommodate that growth". Here scalability refers to the capability of a system to increase its total output under an increased load when resources (typically hardware) are added. This is directly transferable to the context of scaling businesses.

Linking the notion of scalability to business models provides a meaningful framework for discussing and estimating business potential. Business potential is important to many stakeholders in business. From a social and community level, business potential is related to societal wealth creation through the creation of jobs and thereby also tax money for sustaining welfare. From an investor perspective business potential is the backbone of valuation techniques like the Discounted Cash Flow (DCF) model and the bets that many investors make regardless of holding a few stocks on their private account, active Business Angel investors or large institutional investors. From the perspective of stakeholders directly involved in a business and its ecosystem, like for example employees, customers, suppliers and other types of business partners, business potential is important for lowering risk perceptions such as loss of a job, loss of receivables, and loss of money. We might accrue scalability and business potential to the related topic of *growth*.

From Bondi's (2000) description it can be deducted that in addition to growth, addressed above in conjunction with business potentials, the flexibility of a system, structure or business, likewise is an important characteristic of scalability. Flexibility is related to having a certain organizational agility (Christopher and Towill, 2001; Boden, 2004) that allows for changes instigated by external events such as new competition, regulation or macro-economic pressures, or internal events such as R&D, loss or gain of core competences, financial resources etc. Flexibility might induce a certain agility in the offering of value to customers or be conceived as the ability to innovate the business.

Finally, the effects of scalability are also important to consider. In entrepreneurship there is talk of the entrepreneur's dilemma (Wasserman 2006), which relates to the problem of when to sell a venture to a more capital abundant owner, but also the problems entrepreneurs face when having to decentralize decision-making or hire a professional administrator or CEO to run the company for them. In the organization literature there is an abundance of growth and phase models for organizations (see for example Greiner, 1972; Mintzberg, 1983) depicting the organizational, financial and managerial challenges of a growing, or declining, company.

THE KEY LIES IN UNLOCKING EXPONENTIALLY INCREASING RETURNS TO SCALE

Going back to the notions of scale and scope from an economics perspective, three different variations of returns are given (Basu 2008, Gelles and Mitchell 1996), namely increasing, constant and declining returns to scale. In addition to this can be added the dimension of a linear relationship versus an exponential relationship. In table 1, this provides an overview of the possibilities according to these two dimensions. Obviously, in situations of declining returns to scale, the question is merely how quick to leave the business. In the case of linear relationships there might be a case for selling out tactically so as to destroy as little value as possible. In a situation with constant returns to scale, the business needs to be innovated or investments of excess capital should be done elsewhere, and finally in the increasing returns to scale column, the business models become more attractive from a scalability perspective.

Table 1: Analyzing business model scalability

	DECLINING RTS	CONSTANT RTS	INCREASING RTS
LINEAR ATTRIBUTES	Sell out sensibly	Innovate or invest elsewhere	Synergies make this a good place to be
EXPONENTIAL ATTRIBUTES	Leave as soon as possible		The sweet-spot

Table 1 illustrates the importance of understanding that scalability can take several forms. For the manager of a company, it should be unsatisfactory to expect an increase in returns of 10% if the capital employment to reach that goal also is 10%. This is the case of constant returns to scale. And employing an increase in staff of 10% to receive a positive net-result of 5% would be an example of declining returns to scale.

Take the example of a small but stable design company. There are four partners that create a profit of USD 80.000 in year one to be split among them. In year two they hire in a 5th partner, resulting in a profit of USD 100.000, but splitting into five parts results in constant returns to scale. This is a situation seen in many small consultancy companies and scalability achieved merely by selling more hours of service is seldom an activity with increasing returns to scale. It might be the case that some administrative costs, over time, can be spread out across a greater revenue base to achieve some form of synergy effect, but his cannot be termed a scalable business model.

The point being made here is that the objectives of scaling a business should not just be the ability to employ 10% more employees, 10% more capital or resources and get 10% more output. Even despite the fact that synergies might provide the case for lin-

ear increasing returns to scale. For a business model to be truly scalable, it ought to hold the promise of exponential increasing returns to scale. While achieving scalability in a linear increasing returns to scale setting is concerned with finding synergies, the promise of exponential returns to scale are found in cases where the applied resources, competences and value propositions of a business models in combination with one another evolve to completely new properties, by Nielsen and Dane-Nielsen (2009) denoted emergent properties.

METHODOLOGY

This paper is based on a longitudinal action research project from 2007 to 2013. It reports the research focusing specifically on the innovation of the 10 network-based business models being studied. The Danish research program "International Center for Innovation" (ICI) was initiated in 2007, ending in March 2013. The project aimed to inspire and assist participants in a development process of innovating new network-based global business models and in providing a solid base for relevant qualitative data, parallel to a business and industry ambition of creating sustainable business models for the companies involved. The collaborating companies were structured into networks consisting of at least 5 companies. Each network was followed for at period of at least two years. ICI has since 2007 followed and documented the development of 10 network-cases including a total of 92 companies that were in the process of understanding their business model with the ambition to innovate their existing business models to become new global network-based business models.

We applied longitudinal interventionist type methods (Lukka 2005) to the facilitation and study of business model innovation processes. These were combined with a series of non-interventionist type semi-structured interviews (Yin 2013). The research group followed the companies involved in the 10 networks through workshops, company meetings, board meetings and observations. During the research project, there were numerous meetings, workshops, reports and semi-structured interviews, which were recorded and/or documented with minutes, pictures or video. The terminology of business models was introduced to all participants during workshops, and especially the use of the Business Model Canvas (Osterwalder & Pigneur 2010), and narratives exemplifying existing, successful business models (Lund 2014) were mobilized to the business model innovation project.

WHERE ARE SCALABILITY ATTRIBUTES LOCATED IN BUSINESS MODELS?

It seems obvious that what we here would define as a scalable business model is: "A business model that is agile and which provides exponentially increasing returns to scale in terms of growth from additional resources applied". Hence we would be looking for business models that are flexible enough to cope with internal and external forces and demands, and where business potential is not constrained by physical or material assets such as employee hours (time), machine time, cash liquidity, storage space, and other forms of capacity. The search for business models that are able to juggle the characteristics of having few or no capacity constraints while simultaneously providing unique and hard to copy value propositions to customers seems to be the name of the game. Why no go for gold?

First, let us take in a few examples of companies that have had success with designing scalable business models. In fact, the hype of business models at the turn of the Millennium was concerned with precisely scalability, namely the setting of electronic business (e-business) models. Unfortunately, many of the early e-business companies forgot to calculate a realistic business case and many ended up bankrupt at the hands of the dot.com bubble crash in 2001. The e-business hype took advantage of the Internet as a new global channel for reaching customers and users. Technology made it possible for companies to multiply their market potential. By combining Internet-based marketing and ordering mechanisms with traditional physical distribution channels, many e-businesses were able to outcompete the (then) traditional bricks and mortar stores, for example in retailing. We highlight the past tense of *then*, because today, not a respectable retail store exists without an Internet platform in addition to its physical store.

But is it necessarily "a unique business model" to have an online marketing channel (incidentally like everybody else) making possible an online order to be delivered by mail? This is definitely questionable. However, if it was possible to add a new distribution channel that in addition to satisfying the needs of a new group of customers provided additional value to the customers using the existing distribution channels, then that might be defined as "a unique business model". The aspect of scalability could then be judged by the notions of the returns to scale and if these were increasing, we could "Go for Gold".

Let us take a look at some examples of companies leveraging unique business models with scalability attributes. In our empirical data we have encountered a number of novel business models. Our analysis of the ability of these business models to become highly profitable ventures provides us with evidence of five patterns relating to the link with exponential increasing returns to scale. Below we describe these five patterns:

Pattern 1 – Scalability achieved through new distribution channels

While the notion of selling through multiple distribution channels cannot be deemed *novel* in any sense it is important for firms to consider the returns to scale attributes of introducing new distribution channels to the business. If the implementation of a new distribution channel cannibalizes on existing distribution channels then there is a situation of declining returns to scale. Linear increasing returns to scale from the addition of a new distribution channel could potentially be obtained through the sharing of corporate overhead and savings related to higher production outputs, which would be the normal economic argument for adding new distribution channels. However, creating a *sweet-spot scalable business model* would be achieved in cases where adding a new distribution channel simultaneously provides additional value to existing channels and the customers using those. Such an example was found in a case study of the Danish supplier of fresh fish. The company added a new channel for private consumers of fresh fish and as a result achieved being able to sell higher quality fish to their restaurant segment at a lower price. Mixing the channels meant that the private consumers of fresh fish also were made aware of which restaurants they shared suppliers with and this rise in awareness increased the business of the involved restaurants. This is an example of the type of complementary fit identified by Zott and Amit (2013) which occurs when activities are mutually reinforcing. According to Milgrom and Roberts (1990, 1995), activities are complements when the marginal value of one activity increases as the other activity is increased.

Table 2: New channel scalability

	DECLINING RTS	CONSTANT RTS	INCREASING RTS
LINEAR ATTRIBUTES	Channels might cannibalize each other	Channel might give access to new market segment	Sharing of OH costs and production costs between channels
EXPONENTIAL ATTRIBUTES	Cannibalization and loss of brand value		Channels create value to each others customer segments

Pattern 2 – Scalability through release from traditional capacity constraints

From the field of managerial accounting comes the lesson of investing resources at points of constraint in the production process. However, when viewing this from the perspective of business model innovation, companies should be asking themselves how to configure the business to avoid such constraints altogether. In this sense companies are asking themselves whether they are selling hours (of e.g. consulting or service), products, data or reports. Each of the above sales-types has different characteristics relating to capacity constraints. In the case of an engineering company several possibilities were identified. Embedded in the corporate culture of the case company was the notion of the 'coverage ratio' – the percentage of total available man-hours billed to customers. This generally gave R&D activities a hard time in the firm and it also led to a focus on specific types of customers, namely large government organisations best acquainted with reimbursing activity on an hourly basis. Table 3 below reports the characteristics of the different possible business models the engineering company could apply that were identified through our research. It illustrates that in order to move into the sweet-spot, the engineering firm would need to focus on a different customer segment, selling a different type of product; essentially a showdown with the longstanding corporate culture.

Table 3: Capacity constraint scalability

	DECLINING RTS	CONSTANT RTS	INCREASING RTS
LINEAR ATTRIBUTES	Developing new report types for each specific customer	Selling commented and further analyzed but standard data-reports	Selling and cross-selling the system as a product with an annual software licence
EXPONENTIAL ATTRIBUTES			Selling standard data-reports to smaller customers Selling data about customers

Pattern 3 – Scalability through the outsourcing of investments

'If money grew on trees' is a popular expression typically leading to some sort of ranking and choice of options in a company. The ability to optimize the liquidity constraints, cash flow and working capital attributes of ones business model would diminish the worries from many a nervous CFO. However, since cash is almost never in abundance, or free for that matter, business models that are able to push capital requirements over to their strategic partners are most often welcome. In the case of SkyWatch, a company that has developed and produces a drone, a business model with fewer financial and other resource constraints than the firms competitors was developed. SkyWatch stuck to developing its core platform and let other companies develop the software and hardware technologies the drone could carry. Much like the business model of Apple, where software developers create content for the iTunes platform and pay to have it presented there, SkyWatch's partners created software and hardware for checking oil tanks, mapping minefields, search and rescue operations, just to name a few. Table 4 reports the characteristics of SkyWatch's possible ways of doing business that were identified during the research project. Eventually, the firm found a viable business model in the sweet-spot.

Table 4: Scalabilty through outsourcing financial constraints			
	DECLINING RTS	CONSTANT RTS	INCREASING RTS
LINEAR ATTRIBUTES			Partners create technologies that help market the drone
EXPONENTIAL ATTRIBUTES	Own R&D of applications and technologies for the drone		Partners create technologies that provide content to data-reports SkyWatch can re-sell

Pattern 4 – Scalability through the leveraging of partners working for free

This pattern we nicknamed the Dire Straits model, because getting *Money for Nothing* is concerned with understanding the value perspective of the immediate stakeholders surrounding and interacting with the company and how to optimize the value proposition of the company's product/service offering to them. We might briefly return to the Apple example and congratulate them on receiving 30% of revenues from the partners that ensure the lock-in of Apple's paying customers to – yes you guessed it – Apple. This example illustrates the powerful mechanisms of thinking in terms of business models because the firm is guided to leverage its resources and partners in more intelligent manners. Tupperware applies such attributes to attaining a free sales force, and in the era of social media, Groupon and similar companies have taken this leveraging of customers as key marketing partners to a whole new level of business. Table 5 below illustrates how these attributes relate to notions of scalability. Here we have used the notions of marketing partners, but such strategic partners could be leveraged for distribution, creating customer loyalty, giving access to resources and performing other activities according to the value configuration of the business model.

Table 5: Scalability through the leveraging of partners			
	DECLINING RTS	CONSTANT RTS	INCREASING RTS
LINEAR ATTRIBUTES		Customers see what other customers with similar interests purchased	Sales force works for free and receives revenue-based percentages
EXPONENTIAL ATTRIBUTES			Marketing of offers is taken over by the potential customers giving unique access to relevant segments

Pattern 5 – Scalability through the implementation of platform models

Achieving scalability through the implementation of platform models is somewhat related to pattern 4 above. However, in this case the implementation is slightly more radical for the re-design of the business model, than pattern 4's leveraging of partners in a more intelligent way. Platform-based business models have collaboration as their central element. Examples of companies here are value chain coordinators like PrintConnect.com, collaboration platforms like Podio and multisided platform models like VISA.

When looking at business model innovation from this platform-based perspective, an important question to ask is, "How do we make our competitors into our partners or even main customers?" Some companies will be able to leverage constant returns to scale, maybe even linear increasing returns to scale by cooperating with competitors on distribution services, inbound logistics, even service centre and administrative centre constructions. However, table 6 illustrates that the sweet-spot entails becoming the chosen partner of the competition.

Table 6: Scalability through the implementation of platform models

	DECLINING RTS	CONSTANT RTS	INCREASING RTS
LINEAR ATTRIBUTES		Service and administration collaboration	Cooperation of distribution and logistics
EXPONENTIAL ATTRIBUTES			Competitors become customers and strengthen the position of the firm. Selling access to existing customer-base

BUSINESS MODEL SCALABILITY PATTERNS

The five patterns presented above illustrate how a number of companies studied have been able to innovate and concurrently re-design their business model attributes. While these attributes would commonly have lead to declining, constant or at best linear increasing returns to scale, novel ways of configuring business models have the potential of leading to the attributes of the sweet-spot, i.e. exponentially increasing returns to scale. Our data on business model scalability illustrates that the novel attributes identified here fall into four dimensions capable of leveraging exponentially increasing returns to scale:

1. Features/components that enrich the existing value proposition (for free)
2. Features/components that free the business model of existing capacity constraints
3. Features/components that change the business model to a platform for other businesses
4. Features/components that change the role of existing stakeholders and utilize them in simultaneous roles in the business model

Table 7 below illustrates how the four dimensions of achieving business model scalability interact with the key attributes identified in the five patterns above. It illustrates how the five patterns (horizontal) cross the four (vertical) dimensions. A general insight is that companies that only search for cost-cutting alternatives typically will find their way to declining, constant and at best linear increasing returns to scale. However, achieving exponentially increasing returns to scale

is achieved by thinking in terms of value propositions between and among the stakeholders and partners involved in the immediate business-ecosystem of the company.

Table 7: Dimensions of achieving business model scalability

ENRICHING VALUE PROPOSITIONS	REMOVING CAPACITY CONSTRAINTS	CREATING A PLATFORM	CHANGE THE ROLE OF STAKEHOLDERS
New channel enriches the value proposition to existing customers			
Selling data instead of selling man-hours			
Strategic partners create lock-in for customers			
		Customers do marketing or become salespeople	
		Competitors become customers	

BUSINESS MODEL CONFIGURATIONS WITH SCALABILITY CHARACTERISTICS

The five patterns illustrate the configuration of 'exponentially increasing returns to scale' business models. They also show that it is possible to find novel ways of configuring the business models of companies in even very traditional industries. The identified dimensions in table 1 also highlight how to distinguish between the synergetic offerings of the linear increasing returns to scale and the emergent properties of the exponentially increasing returns to scale characteristics.

Leaning on the examples discussed above, this next phase in the paper looks for generalizations capable of capturing the identified characteristics of sweet-spot business models. There are various levels of abstraction available for the modeling of the value creation of businesses. For example, Osterwalder *et al.* (2004) distinguish between meta-models of business models, taxonomies of business model types, modeled instances of business models and real-life companies. Lambert (2015) and Groth (2015) also survey the usefulness of taking ones point of departure in specific levels of abstraction. While Lambert's (2015) goal is to set the scene for a stronger theory-building practice within the field of business models, Groth's (2015) objectives are concerned with illustrating that the level of business model taxonomies is the most advantageous point of departure for developing statistically reliable models of different ways of doing business. In another recent contribution, Massa and Tucci (2013), distinguish between six levels of abstraction (see figure 1).

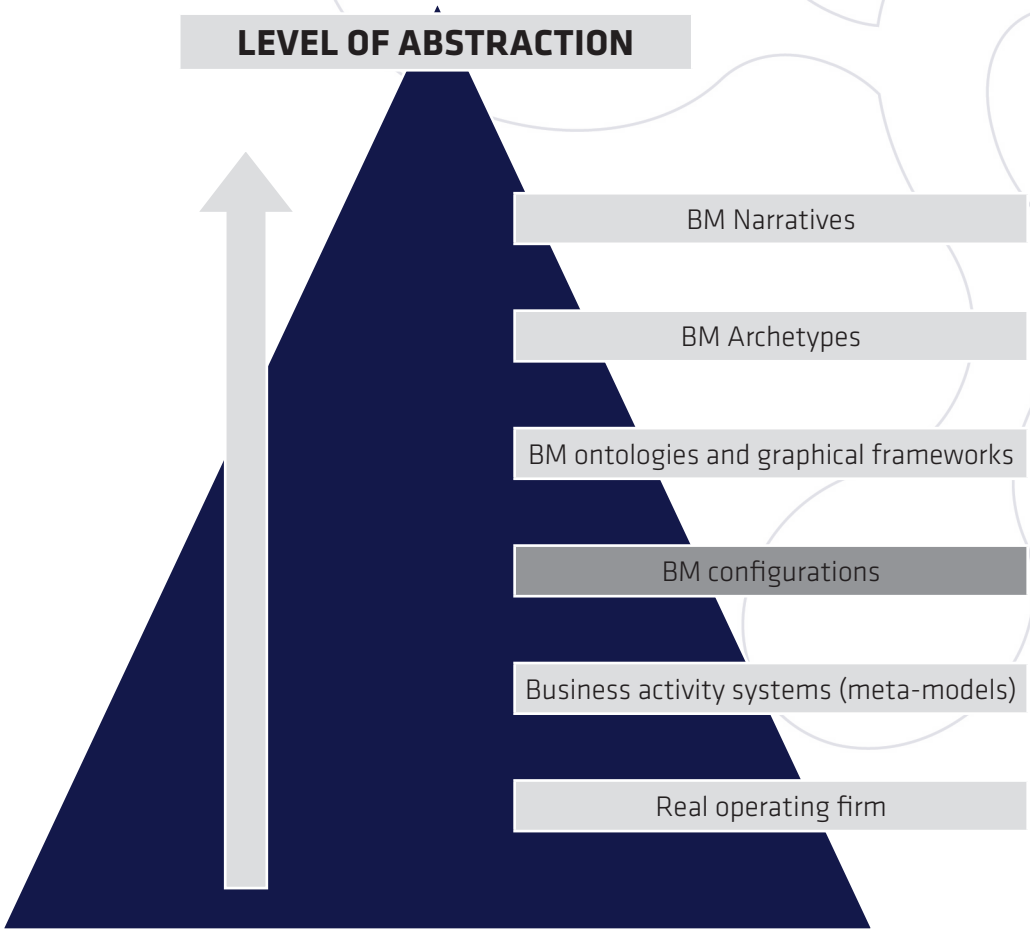

Figure 1: Different levels of business model abstraction (inspired by Massa and Tucci, 2013)

For the purpose of the following analysis and identifying and describing the characteristic features of business models and their value creation processes, we choose the level of business model configurations as our point of focus here. In this phase of the study, we considered the configurations suggested by Linder and Cantrell (2000), Osterwalder and Pigneur (2010), Gassmann *et al.* (2014) and finally Taran *et al.* (2015). Coupled with the four attributes of business model scalability derived from figure 1, table 7 below reports the desk survey of the sources quoted above. The objective here has been to identify already recognized and classified business model configurations capable of containing the four scalability characteristics. This in turn is expected to lead to a sounder understanding of how to generalize the five patterns and provide a possible framework for further investigation.

Enriching value propositions	
VIRTUAL COMMUNITY	
Named by	Weill & Vitale, 2001
Description	Facilitate and create loyalty to an online community of people with a common interest enabling interaction and service provision. Members (customers or partners) add information into a basic environment and thereby create value for one another

Real life examples	Trust Pilot, YouTube
Related labels	Community model (Rappa, 2001), Crowdsourcing (Johnson, 2010), Open source (Gassmann et al., 2014)
E-SHOP/SHOP	
Named by	Timmers, 1998
Description	Customers will pay premium prices for convenience such as: broad selection, ubiquitous access and fast delivery
Real life examples	ASOS.com
Related labels	Merchant model (Rappa, 2001); One stop, convenient shopping (Linder and Cantrell, 2000); Supermarket (Gassmann et al., 2014), Shop in shop (Gassmann et al., 2014), linked to E-commerce (Gassmann et al., 2014)
E-MALL/MALL	
Named by	Timmers, 1998
Description	A collection of shops or e-shops, usually enhanced by a common umbrella
Real life examples	eBay
Related labels	Merchant model (Rappa, 2001), one stop low price shopping (Linder and Cantrell, 2000), Shop in shop (Gassmann et al., 2014), linked to E-commerce (Gassmann et al., 2014)
Removing capacity constraints	
CHANNEL MAXIMIZATION	
Named by	Linder and Cantrell, 2000
Description	Content is delivered through as many channels as possible
Real life examples	Coca Cola
Related labels	
INTEGRATOR	
Named by	Gassmann et al., 2014
Description	Be in command of the bulk of the steps in a value-adding process by controlling all resources and capabilities in terms of value creation
Real life examples	Zara
Related labels	Bundling business models (Osterwalder and Pigneur, 2010)
DISINTERMEDIATION	
Named by	Johnson, 2010
Description	Deliver directly to the customer a product or a service that has traditionally gone through an intermediary
Real life examples	Dell

Related labels	Manufacture (direct model) (Rappa, 2001), Direct to consumer (Weill and Vitale, 2001), Direct selling (Gassmann et al., 2014)
CUSTOMER FOCUSED	
Named by	Taran et al. 2015
Description	Focus on the customer relationships activity and outsource the infrastructure management and the product innovation activities
Real life examples	Mobile Telco, Private banking
Related labels	Unbundling business models (Osterwalder and Pigneur, 2010), linked to From push to pull (Gassmann et al., 2014), linked to Orchestrator (Gassmann et al., 2014)
TRADE SHOW	
Named by	Taran et al. 2015
Description	Leave marketing or other value chain functions (payment, logistics, ordering) to a 3rd party with a well-known brand name e.g. licensing, outsourcing
Real life examples	Alibaba.com, Exhibition fair
Related labels	Third-party marketplace (Timmers, 1998)
Changing the role of stakeholders	
ROUND UP BUYERS	
Named by	Taran et al. 2015
Description	Buyers are rounded up to gain purchase discounts and thereby offer attractive prices
Real life examples	Costco, Groupon
Related labels	Buying club (Linder and Cantrell, 2000)
CONTENT CREATOR	
Named by	Taran et al. 2015
Description	Provide content (e.g. information, digital products and services) via intermediaries
Real life examples	Bloomberg L.P.
Related labels	Content provider (Weill & Vitale, 2001), Digitalization (Gassmann et al., 2014)
Creating Platform-Based Value	
FREE FOR ADVERTISING	
Named by	Linder and Cantrell, 2000
Description	Offer free products and services through a platform and make revenues from selling advertising space

Real life examples	Facebook, GOOGLE
Related labels	Advertising model (Rappa, 2001), Free advertising (Osterwalder and Pigneur, 2010), Market aggregation (Linder and Cantrell, 2000), Hidden revenue (Gassmann et al., 2014)
INTEGRATED	
Named by	Chesbrough, 2006
Description	Routinely utilize external sources to fuel the business model and unused ideas are allowed to flow outside to others' business models. The company becomes a system integrator of internal and external technologies
Real life examples	Procter & Gamble
Related labels	Open Business Model (Gassmann et al., 2014)
ADAPTIVE	
Named by	Chesbrough, 2006
Description	Create an "ecosystem" by establishing its technologies as the basis for a platform of innovation for the value chain and benefit from the investments of other in the platform
Real life examples	Apple Iphone
Related labels	
VALUE CHAIN SERVICE PROVIDER	
Named by	Timmers, 1998
Description	Specialize on a specific function for the value chain, such as electronic payments or logistics, with the intention to make that into their distinct competitive advantage.
Real life examples	Shipping- and freight companies
Related labels	Layer player (Gassmann et al., 2014); Reliable commodity operations (Linder and Cantrell, 2000), Service-wrapped commodity (Linder and Cantrell, 2000)
VALUE CHAIN COORDINATOR	
Named by	Taran et al. 2015
Description	Provide transaction coordination services and optimization of the communicational and organizational workflows for all parties involved in the same value chain
Real life examples	Celarix, PrintConnect.com
Related labels	Value net integrator (Weill & Vitale, 2001), Value chain integrators (Timmers, 1998), Transaction service and exchange intermediation (Linder and Cantrell, 2000)
COLLABORATION PLATFORMS	
Named by	Timmers, 1998

Description	Provide a platform (a tool kit and an information environment) for collaboration between enterprises
Real life examples	Podio
Related labels	Shared IT infrastructure (Weill and Vitale, 2001)
BROKERAGE	
Named by	Johnson, 2010
Description	Bring together buyers and sellers and facilitate transactions
Real life examples	Saxo Bank, stock exchanges
Related labels	Information brockerage, trust and other services (Timmers, 1998), Intermediary (Weill and Vitale, 2001), Affiliate model (Rappa, 2001); Brokerage model (Rappa, 2001), Open market making (Linder and Cantrell, 2000), Exclusive market making (Linder and Cantrell, 2000)
INFOMEDIARY	
Named by	Rappa, 2001
Description	Collect or/and produce information for other in regards to market information, products, producers and consumers
Real life examples	Edmund
Related labels	
MULTI-SIDED PLATFORMS	
Named by	Osterwalder and Pigneur, 2010
Description	Multi-sided platforms create value by facilitating interactions between two or more distinct but interdependent groups of customers
Real life examples	Nintendo, GOOGLE, VISA
Related labels	Two-sided market (Gassmann et al., 2014), Multi-party market aggregation (Linder and Cantrell, 2000), Hidden revenue (Gassmann et al., 2014)

Table 8: Business Model configurations with business model scalability attributes (inspired by Taran et al. 2015)

The analysis of the configurations in patterns one to five led to a set of common attributes that could be mobilized in relation to attaining exponentially increasing returns to scale. Using the language provided by the Business Model Canvas (Osterwalder and Pigneur, 2010), the business model configurations presented here have a tendency to concentrate around the building blocks on the left hand side of the canvas, also denoted the back-end of the business model (Günzel and Holm 2013) or the value configuration (Osterwalder *et al.* 2004). These building blocks relate to Strategic Partners, Activities, Resources, Cost Structure and are connected to the Value Proposition.

This analysis of already recognized configurations in the present business model literature illustrates that while the notions of creating platform-based business models with exponentially increasing returns to scale is quite widespread, there is much more scarcity according to the three other proposed dimensions. These listed configurations offer to the reader the possibility of finding inspiration. However, in order to come to

terms with analysing the business models of their own companies, managers might need an additional framework from which to start their analysis. This is provided in the roadmap below.

A ROADMAP FOR ACHIEVING BUSINESS MODEL SCALABILITY

In innovating or rejuvenating our companies, we could stomp down the habitual road of analysing cost structures, product segment profitability and market-segment growth. However, the perspective of business models provides a much more novel angle to creating a roadmap for achieving business model scalability. Based on research with companies, we propose the following roadmap, set out in three steps, for testing and designing business model scalability.

We suggest the company to go through these three stages in three management meetings set over 3-4 weeks. The meetings need not be longer than 90 minutes each to foster brainstorming and discussion on identifying whether there are novel ways to tweak the existing business model.

STEP 1: Contemplate the two pathways to business model scalability

Business model thinking provides us with an alternative to business development, which should be considered by entrepreneurs or company managers. The configurations identified in the literature were found to be mainly related to strategic partners, cost structures, activities, resources and the value proposition of the company and in analysing the business model innovation in patterns one to five that led to exponentially increasing returns to scale, two routes emerged. Depicted in figure 3, we label these the two pathways to business model scalability.

Figure 3: Two pathways to business model scalability

Figure 3 illustrates that exponential business model scalability typically connects strategic partners to the value proposition either through activities and costs or resources and costs. Remember that achieving scalability requires thinking beyond the scope of cost sharing and cost reductions. Asking the following questions does this:

1. Are there potential strategic partners that could perform activities in our business model cheaper while providing a higher value proposition to our customers at the same price?
2. Are there potential strategic partners that could provide resources in our business model at a cheaper price while providing a higher value proposition to our customers at the same price?

The answers to these two questions give indications of which aspects of the business model that are prone to innovation. The next step is to become more detailed about how to configure this.

STEP 2: Examples and questions that uncover business model scalability

Use the ideas generated in STEP 1 to gain more detail into how novelty and scalability can be un-locked. One way forward is to have prioritized the three best ideas from STEP 1 and to challenge each of them with the questions below:

1. Can partners offer features that enrich the existing value proposition or create a customer lock-in for your business, while receiving value back themselves?
2. Are there alternative revenue patterns that free the business model of existing capacity constraints?

3. Is it possible to change the business model to a platform for other businesses?
4. Is it possible to change the role of existing stakeholders and utilize them in simultaneous roles in the business model?
5. Who would pay for either access to your customer-base or knowledge about your customers and their characteristics?
6. How strong are the "hard to copy" and "time to copy" attributes in your business model?
7. How agile would your company be towards threats from new entrants or new technologies and would you be able to readjust within 6 months?
8. How agile would your company be if activity level was to drop by 50 % next quarter because of declining revenues? How would you rate your flexibility in terms of cutting total costs correspondingly?

STEP 3: Analysing scalability attributes

Finally, step 3 in the roadmap to scalability is to analyse the attributes of the possibilities the company has identified in steps 1 and 2 according to table 1. The example below illustrates this in regards to the introduction of a new distribution channel as discussed in pattern 1 above. While cannibalization between channels was a real threat, this company succeeded in configuring the business model so that the new channel provided value to customers of existing channels, hence achieving *exponentially increasing returns to scale*.

Table 9: Analyzing business model scalability

	DECLINING RTS	CONSTANT RTS	INCREASING RTS
LINEAR ATTRIBUTES	Sell out the assets in a sensible manner	Innovate the business model or invest excess cash in other business	Cost synergies make this a good place to be
EXPONENTIAL ATTRIBUTES	Get out of the business ASAP (as soon as possible)		The sweet-spot

CONCLUDING REMARKS

Following Osterwalder and Pigneur's (2010) Business Model Canvas, business models can be based on many different value propositions towards customers. While some business models allow for economies of scale, others are based on economies of scope and differentiation. Hence, in returning to the concept of scalability in the context of business models this article illustrates that scalability comes in varying degrees. Achieving sweet-spot business models is typically connected with the ability of leveraging exponentially increasing returns to scale. The many examples applied in this study illustrate the difference between ordinary and novel implementations. The point here is that the devil lies in the detail and in choosing the most intelligent manner of configuring the business model.

Despite the study identifying several business model configurations in table 7 holding promise for sweet-spot business models, and identifying a number of novel business models, from which four dimensions of exponential returns to scale were identifiable, our research indicates that this does not constitute an explicit enough process for managers to follow. Accordingly a roadmap to be used to structure the managers' business model innovation process was suggested.

To conclude this article, scalable business models have the following characteristics:

- The business potential is characterized by exponentially increasing returns to scale
- They remove themselves from otherwise typical capacity constraints of that type of business
- Partners enrich the value proposition without hurting profits

- Stakeholders take multiple roles and create value for one another
- The business model becomes a platform that attracts new partners, including competitors

Furthermore, the discussion led to the identification of the two criteria:

- Agile and flexible businesses both in growth and decline
- Hard to copy value propositions or ones that take a long time to replicate

Working with this roadmap for business model scalability is relevant for entrepreneurs who are in the process of starting up companies and developing business models from scratch as well as business managers concerned with innovating, rejuvenating and re-modelling their businesses. The ideas put forth here are also important for potential investors to understand when analysing businesses. Finally, these aspects are highly relevant for policy-makers because they relate to the support mechanisms for entrepreneurial activities and support activities for Small and Medium-sized Enterprises (SMEs) both on national and supra-national levels.

While a lot of the recent research relating to business model innovation tends to focus on the alignment of value propositions and customer needs (cf. Osterwalder *et al.* 2014) or the organizational effects of business model innovation (Foss and Saebi 2015), we found the topic of business model scalability to be more concerned with achieving configuration alignment between the value proposition and strategic partners. In this analysis costs were found to be either associated with activities or resources. As such, this research indicates that the notions of cost structures were actually irrelevant as a stand-alone building block in the business model. This would imply that future discussions about the financial aspects of business models are focused on *revenue models* and not profit models, as for example suggested by Zott *et al.* (2011).

Looking towards future perspectives, three of the dimensions identified as gateways to scalable business models (enriching value propositions, removing capacity constraints and changing the role of stakeholders) were found to a lesser extent in the literature on business model configurations. Hence, research ought to focus on uncovering new configurations with these characteristics. Using the approach generated in this paper might be difficult for managers. This can be overcome by introducing better guidance, for example through the use of analogies, metaphors or storytelling. Finally, this article suggests that the notion of scalability would be an important dimension of a yet to see sound business model archetypes scheme (Massa and Tucci, 2013; Taran *et al.*, 2015).

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