ENTREPRENEURSHIP 3.0: TOOLS TO SUPPORT NEW AND YOUNG COMPANIES WITH THEIR BUSINESS MODELS

Christel De Maeyer\textsuperscript{a}, Karijn Bonne\textsuperscript{b}

Artevelde University College Ghent,
Graphic Digital Media – Business Management – Communication
Management and Journalism, Gent, Belgium
\textsuperscript{a} e-mail: Christel.Demaeyer@arteveldehs.be
\textsuperscript{b} e-mail: Karijn.Bonne@arteveldehs.be

Abstract

In 1983, Time Magazine referred to the new economy as a transition from a production-oriented industry to an economy based on new technology. Later on, it was dubbed a service-oriented and knowledge-based economy. Today, it is also closely linked to sustainability and ecology. The new economy initiates new initiatives from the crowd. This is, for example, reflected in crowdsourcing and open innovation and can lead to open business models. Without the latter, innovators and/or entrepreneurs will fail to provide or capture the value they create with their innovations. Innovations in business models are more important for society and for companies than the technological innovations itself. After all, new technology has no chance of success in the market without a good business model. Therefore, the established traditional business models from the past should be turned into more socially driven models that take into account new societal challenges.

The ‘Entrepreneurship 3.0’ Research Centre focuses on new business models to support pre- and early stage start-ups with setting up a new business model and, on the other hand, to guide growth SMEs in the transition towards a new model. We will do this by acquiring insights through evidence-based research and by developing tools and methodologies. Entrepreneurship 3.0 focuses on business model innovation in general and on some topics in particular: sharing & collaborative economy, 3D & materialize economy, blue economy & cradle-to-cradle, crowdfunding and the entrepreneur.

Keywords: research centre, business model innovation, sharing & collaborative economy, 3D & materialize economy, blue economy & cradle-to-cradle, crowdfunding

Paper type: Review paper

1. Introduction

SME culture has a long tradition in Europe; it has always been an SME landscape. According to the European Commission, a total of more than 20 million SMEs employ about 87 million people (about two-thirds of the private
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SMEs operate in an ever-changing environment: decentralized, networked, globalised and post-industrial, which is typical for the new economy (Mikusova, 2010). In 1983, Time Magazine referred to the new economy as a transition from a production-oriented industry to an economy based on new technology (Alexander, 1983). Later on, it was dubbed a service-oriented and knowledge-based economy. After the 2008 financial crisis, the new economy turned into “an economy that recognizes that the only thing too big to fail is the Earth itself. It is designed to build sustainable wealth in communities and ecosystems” (Van Gelder, 2009). Audretsch and Thurik talk about the emergence of the entrepreneurial economy, dominated by small and medium sized companies in all sectors, instead of the managed economy (Audretsch and Thurik, 2001).

Within this new economic field, many initiatives emerge from the crowd: “community dynamics has become an essential ingredient of doing business” (Bollier, 2013). Communities now have the power to quickly and strongly influence society and enterprises. SMEs no longer operate on their own but in a network (see below). This is, for example, reflected in crowdsourcing and open innovation and can lead to open business models (P2P Foundation, 2012). Therefore, companies must constantly adapt and innovate (incrementally & radically). Not for growth, but in order to survive (Lewrick et al., 2010) (Lewrick et al., 2015).

Without entrepreneurs there would be no entrepreneurship. In his paper, Jain (2011) refers to the results of a longitudinal study by Kessler and Frank (2009), in which entrepreneurial success is determined by four dimensions: the entrepreneur, resources, the environment, and the start-up process. Other authors rather put emphasis on the skills of the entrepreneur as a success factor. The definition of an entrepreneur dates back to 1934, when Schumpeter described them as innovators who implement change within markets by combining the old and the new. Moreover, the entrepreneur in transition (from start-up to established company, in the growth phase) is challenged to manage predictable changes and to detect emerging changes (unpredictable changes) (Jain, 2011). More recently, the European Commission has validated an entrepreneurship competence conceptual framework. To them, entrepreneurship means acting upon opportunities and ideas and transforming them into value for others, whether financial, cultural or social (Bacigalupo, 2015). The framework for creating value is the business model. A business model is the conceptual model of a company (not the financial). It defines how the company creates and provides value for consumers and how the payments are converted into profits (Mangematin and Baden Fuller, 2015). Today, economic changes in the business environment (the new economy) force companies to review their value proposition model. Without new business models, innovators/entrepreneurs will fail to provide or capture the value they create.
with their innovations (Teece, 2010). Innovations in business models are even more important for society and companies than technological innovations itself. After all, new technology has no chance of success in the market without a good business model (Joan, 2002).

Byerly (2014) states that the established traditional business models from the past should be turned into more socially driven models that take into account new societal challenges. The image of the entrepreneur has changed from an isolated ‘seller’ to a ‘networker’, and this also applies to companies. Today, enterprises do not only possess economic power but also social power. They are more collaborative, ‘networked’ and ‘intertwined’ with communities. The distinction between profit and non-profit, which was clearly defined in the past, has become blurred. Sustainable entrepreneurs use socio-ecological problems as a source for innovation and business development. They develop new sustainable products or services to compete with conventional products or services that are sold with profit (Byerly, 2014).

Entrepreneurship 3.0 aims to support pre-and early stage start-ups in setting up new business models and to guide growth SMEs in the transition towards a new model. We will do this by acquiring insights through evidence-based research and by developing tools and methodologies.

2. Approach

Within the Research Centre, both scientific and evidence-based methods will be used. Evidence-based (Reynolds and Trinder, 2008) means that the knowledge is based on the most efficient and effective information available from practitioners in the respective field. In a way, evidence-based is a counter-reaction to pure (and expensive) scientific research, which is carried out in controlled but often isolated experimental conditions. Instead of reading many theories and investigating by means of experimental manipulations, evidence-based directly communicates with the end user through qualitative or quantitative research methods in order to find out what they think would work and how they experience certain changes, applications, conditions... It opposes scientific methods, where failures to replicate or certain findings are not always reported. Evidence-based is based on the expertise and experience of practitioners, on what works for them, without having been ‘proven’ in a lab.

The Research Centre is also inspired by scrum methods (lean or agile) and will apply them for developing methods and tools. The used principles cannot always be labelled as ‘scrum’, but the importance of ‘agile’ thinking throughout the entire process and being open to new insights and changes in order to obtain a useful result is essential in a crowd economy (Stox, 2015). Using scrumming means that one is permanently aware that the needs and/or requirements of the user can change during the process and that new insights can change the course
3. **Scope**
Entrepreneurship 3.0 focuses on business model innovation in general, and some themes in particular (sharing & collaborative economy, 3D & materialize economy and blue economy & cradle to cradle), crowdfunding and the entrepreneur.

Business Model Innovation in general may include basic tools and methodologies inspired by, for example, Business Model Canvas (Osterwalder and Pigneur, 2009), Lean Startup (Ries, 2011), methodologies and tools by the Board of Innovation, etc. to support pre-and early stage start-ups and growth SMEs in building or renewing their business model.

However, we decided to focus on some specific topics: sharing economy, 3D economy, blue economy & cradle to cradle.

3.1. **Sharing economy**
Different terms are often being used to refer to the sharing economy, e.g. collaborative economy, collaborative consumption, peer-to-peer economy, platform economy or on-demand economy. The sharing economy enables access instead of ownership, encourages decentralised networks over centralised institutions, and unlocks wealth (Stokes et al., 2014).
**Figure 2. Product Service Systems**

(Stouthuysen in (EcoRes, 2015))
The idea comes from co-creation, a process which turns the consumer into a producer. It often concerns lead users (Von Hippel, 1986) who are passionate about a product or service and therefore have a clear view on what can bring added value to the service or product. According to others, every aspect of the business model can be carried out together: creation, production, distribution, trade and consumption of goods and services (EcoRes, 2015). Well-known international examples of a sharing economy, lately also referred to as ‘gig economy’ or the ‘raw deal’ (Hill, 2015), are Airbnb and Uber.

For example, in collaborative consumption, consumers are not the owner of the product or service. They share their goods or services instead. There is more than merely the selling of a product or a service; a whole range of possibilities lies in between (see figure below): pooling, sharing, leasing, outsourcing and combinations between products and services. The collaborative economy clearly impacts core business models (Owyang et al., 2013).

Desso, a Flemish carpet manufacturer, completely redesigned its business model in 2008. They now lease carpets instead of selling them to B2B customers. They pay per square metre for the carpet, installation, maintenance and return. At the end of the lease contract, Desso collects the carpets and re-uses some components. For example, the yarn is recycled at least 40 times. The founder of the Belgian company Tale Me wanted to produce European-made children’s clothing, designed by Belgian or Dutch designers, with European fabrics. Normally, she would end up in a high-end market with rather expensive clothing. However, driven by sustainability she wanted everybody to have access to these children’s clothes. Therefore, she came up with a premium formula: for a fixed monthly price, the customer receives a package of ‘new’ clothes every two months. In both cases, the final user does not own the products, he/she just uses them.

In Belgium, a lack of economically sustainable business models is a real bottleneck within the sharing economy. Sharing initiatives, e.g. sharing a car, often have a strong social objective. This is both a strength and a weakness of this type of economy. Social motivation ensures environmental and social inclusion objectives rather than economic interests. To survive in the long term and to target various consumers, a sustainable economic model behind the initiatives is necessary (Deckmyn et al., 2014). According to the authors of this text, there is a real need for organisations that can provide operational support, financing and help with improving their innovation potential. This will be the role of the Research Centre. The authors also believe that Business Model Innovation will speed up the Belgian sharing economy. The sharing economy will provoke a paradigm shift among consumers who prefer use to possession. At the same time, the market for companies with innovative product-service systems will also be stimulated. Moreover, companies, in turn, can learn a lot from peer-to-peer initiatives from the crowd.
Finally, a very important aspect of collaborative or sharing economy is the digital technology that makes this economy possible (Belk, 2014). Digital technology, web 2.0 applications (social media like Wikipedia, forums, blogs, Skype, Facebook, Twitter, LinkedIn ...), is used to give people access to goods, resources, and services. There is an ‘undeniable interconnectedness of the collaborative economy, extending it to other phenomena like Facebook or Twitter’ (Stokes et al., 2014). No collaboration without the use of Internet technology, web 2.0 applications, social media to connect with each other. Via the technology (web 2.0), and communities (the crowd) new economies get more opportunities to develop. One can share knowledge across company borders through (social) networks. One can communicate a crowdfunding campaign through (social) networks, etc. Internet technology (especially social networking websites) and connecting people via networks are (not surprisingly) the most important features of the collaborative economy (Stokes et al., 2014).

3.2. 3D economy

3D printing is sometimes regarded as the third industrial revolution, where production is centralized. It comes down to (re)producing in a new way: in one piece. However, products are, in most cases, a composition of parts. With 3D printing, it becomes possible to produce products in their entirety, from a 3D design on PC. In fact, it is a new production method: the digital production that starts in a virtual computer programme and comes to life via a 3D printer. For consumer products, but also industrial applications. Therefore, companies no longer need gigantic production halls, “a shed with a solid 3D printer and you’re off” (Pantelis, 2013). That is why it is called a third industrial revolution; it converts the traditional production completely.

3D printing will undoubtedly have an impact on traditional business models (Rayna and Striukova, 2014). The use of 3D models is a completely new business that requires a new approach. In addition, in the short or medium term suppliers/providers will face a disruptive period comparable to the one of the digital image. Brands that sell products today will have to reflect on this. Lego, for example, should ask itself whether they will stick to selling plastic bricks or switch to selling models for parts (for 3D printing by customers) or even product after-sales service design (Stox, 2015).

3.3. Blue economy and cradle to cradle

“The Blue Economy: 10 Years – 100 Innovations – 100 Million Jobs” is a book by Gunter Pauli (2010) in which the author argues that blue economy business models will cause a society shift from scarcity to abundance by working with locally available goods in order to tackle ecological problems in a different way … The starting point is to look for solutions that are both ecologically, financially and
socially acceptable. The focus should be on value rather than on cost reduction. The blue economy philosophy also mirrors the principle of cradle-to-cradle, which assumes that inevitable negative flows can still contribute to positive value creation for the environment (Pauli, 2010).

This philosophy requires a fundamental shift in the purpose of business and almost every aspect of how it is conducted. Business model innovation offers a potential approach to deliver the required change through re-conceptualising the purpose of the firm and the value creating logic, and rethinking perceptions of value (Bocken et al., 2014). It is a business model used for designing products that are safe, healthy, recyclable and of high quality from beginning to end of the chain. The cradle-to-cradle principle is closing the materials loop by offering production and consumption without any damage to the environment. This requires a new collaboration between suppliers, producers, users and processors to develop better products. Cradle to cradle is therefore a strategy for product and process in which the closing of material cycles is central (McDonough and Braungart, 2002). The previously cited example of carpet manufacturer Desso fits in this cradle-to-cradle philosophy. In 2008, the CEO of the company went for cradle to cradle and had its chain completely redesigned. For example, instead of buying the raw materials from a limestone quarry in northern France, the limestone is now picked up at water treatment companies. Carpet tiles are no longer sold but leased by Desso. The company can take the tiles back and reuse the material up to 40 times. Desso received the ‘cradle-to-cradle certification’ because of their new way of working.

3.4. Crowdfunding

New types of businesses usually take new forms of financing. The founder of Tale Me revealed this during a lunch debate (‘Time for change’) on circular economy in Brussels, Belgium (2015). She launched a totally new business model in classic clothing sector: a subscription model for high-end children’s clothes. Therefore, it was difficult to get financed. Crowdfunding can be an alternative, innovative form of financing which raises money from a large group of small funders. A recent example of a successful Kickstarter crowdfunding campaign is the Belgian game company Larian Studios, who surpassed their goal within a day (Sunico, 2015).

Within crowdfunding we have different forms, these types are defined by the European Commission (European Commission):

- Peer-to-peer lending;
- Equity crowdfunding;
- Reward crowdfunding.

Peer-to-peer lending (sometimes called crowdlending), is a direct alternative to a bank loan with the difference that instead of borrowing from a single source, companies can borrow directly from dozens, sometimes hundreds, of individuals
who are willing to lend. Crowdlenders often bid for loans by offering an interest rate at which they would lend. Borrowers then accept loan offers at the lowest interest rate. Internet-based platforms are used to match lenders with borrowers. Due diligence is carried out for each loan request, as crowdfunding platforms have a duty to protect both businesses and investor interests. Platforms normally require financial accounts and a trading track record.

Equity crowdfunding consists of selling a stake in your business to a number of investors in return for investment. The existence of equity funding is well established, with private equity, venture capital and angel investing long playing a role in developing companies. The main difference between equity crowdfunding and these traditional models is that, rather than establishing a one-to-one relationship, it is offered to a wide range of potential investors, some of whom may also be current or future customers. Equity crowdfunding does this by matching companies with would-be angels via an internet-based platform.

Rewards-based crowdfunding consists of individuals donating to a project or business with the expectation of receiving a non-financial reward in return, such as goods or services at a later stage. A common example is a project or business offering a unique service (rewards) or a new product (pre-selling) in return for an investment. This form of crowdfunding allows companies to launch with orders already on the books and cash-flow secured (a major issue for new businesses) and gathers an audience before a product launch.

One of the pillars of Entrepreneurship 3.0 is looking at failures and successes within crowd financing. Within these crowdfunding models, we also look at the new quadruple helix model (Helms and Heilesen, 2011) which adds the citizen

![Quadruple Helix model](image)
as a fourth helix to the triple helix model. This model is not only used within co-creation and innovation models. It can also be applied to crowdfunding models, i.e. financial models in which people can co-invest/participate in entrepreneurial initiatives from idea to startup.

3.5. The entrepreneur

Finally, yet importantly, we have the entrepreneur. New forms of entrepreneurship demand new kinds of entrepreneurs. Entrepreneurship 3.0 wants to support entrepreneurs in the new economy. A recent study by Ecores (2015) regarding the circular economy in Flanders (via case studies) suggests profiles of entrepreneurs on the basis of their attitude towards this new economy. The classification was made on the basis of the sharing economic rationale and the motivation for sustainable entrepreneurship and can be used to further narrow down our target group.

4. Implications for future applied research, practice and society

During the ‘Time for Change’ lunch debate (Brussels, 2015) on functionality economy, it immediately became clear that different concepts are being applied to new business models, e.g. sharing economy, circular economy, P2P economy, etc. Depending on the author or flow, the concept gets a slightly different interpretation. In the end, the proper definition does not matter, getting inspired by these definitions is an important first step already. These new models are emerging (P2P Foundation, 2012), but their economic value is in general still marginal compared to the classic economic models. An exception to this is the open-content and open-source economy in the US, which is estimated to make up one-sixth of the GDP. The different visions or models are connected and can also reinforce each other (P2P Foundation, 2012).

In an e-book about new business models for circular economy, Walter Stahelis cited that “there are no economic models which allow even just seeing the impact on the labour force of moving from a linear to a circular economy” (Deckmyn et al., 2014). Moreover, the European commission goes with this statement.

However, there is still work to be done. In the preface to that same e-book, the chairman of Plan-C argues that a lot of companies and research institutions are working on aspects of circular economy. However, when it comes to chain approaches, joint developments beyond the boundaries of the company, system innovation, open knowledge, new business models, in short putting into practice the basic concepts of circular economy, things go much slower. “The final destination may be well-defined and known, the road has yet to be paved” (Deckmyn et al., 2014). The Research Centre can also contribute to this.

Our focus is consistent with the cross-cutting policy report ‘Flanders 2050’: principles and approaches which, inter alia, states that “technological innovations
such as mechatronics, robotics, social media, e-shopping, 3D printing ... provide many economic opportunities, but will be disruptive for many sectors and the people who work there, and even society as a whole. It is an ongoing challenge to make this available to as many people as possible. It will be challenging to be innovative and competitive, and join new economic laws in time. In society as a whole, we also need to overcome fear of the unknown and use the new developments as leverage to strengthen our common values and social cohesion yet” (Stox, 2015).

5. Value of this paper
The added value of this review paper lies in our view of the new economy, of new business and financing models that are greatly in demand today. The gap between the new and the old is still a big one to close. Traditional SMEs are struggling to get into the new economy and are looking at their company in a different way to reinvent themselves. Startups, on the other hand, are far ahead in terms of innovation. They can help by setting an example for the traditional SMEs. Within the Research Centre Entrepreneurship 3.0 we want to conduct applied research to help close the gap between the old and the new, by tackling the different topics outlined in our mission and vision. This paper is a starting point to get the debate and research going.

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