

GLOSSARY

BUSINESS MODEL:

The term business model refers to a company's plan for making a profit. It identifies the products or services the business plans to sell, its identified target market, and any anticipated expenses. Business models are important for both new and established businesses. They help new, developing companies attract investment, recruit talent, and motivate management and staff. Established businesses should regularly update their business plans or they'll fail to anticipate trends and challenges ahead. Business plans help investors evaluate companies that interest them.

The two primary levers of a company's business model are pricing and costs. A company can raise prices, and it can find inventory at reduced costs. Both actions increase gross profit. Many analysts consider gross profit to be more important in evaluating a business plan. A good gross profit suggests a sound business plan. If expenses are out of control, the management team could be at fault, and the problems are correctable. As this suggests, many analysts believe that companies that run on the best business models can run themselves.

Business Model Canvas:

The Business Model Canvas breaks your business model down into easily-understood segments: Key Partners, Key Activities, Key Resources, Value Propositions, Customer Relationships, Channels, Customer Segments, Cost Structure, and Revenue Streams. ... It helps communicate to clients why they should do business with you.

Benefit of Business Model Canvas:

The Business Model Canvas is one of the most well-known and relied-upon to help entrepreneurs transform an idea into an organized strategy and an actionable business plan. A Business Model Canvas lets you put your entire business down on paper and assess your strategy, planning gaps and exposure to risk. You can easily create your own Business Model Canvas and go through the exercise yourself (in <https://philadelphia.score.org/blog/benefits-using-business-model-canvas-2>)

Criticism of Business Models:

Joan Magretta, the former editor of the Harvard Business Review, suggests there are two critical factors in sizing up business models. When business models don't work, she states, it's because the story doesn't make sense and/or the numbers just don't add up to profits. The airline industry is a good place to look to find a business model that stopped making sense. It includes companies that have suffered heavy losses and even



bankruptcy. (in <https://www.eajournals.org/wp-content/uploads/Criticisms-Variations-and-Experiences-with-Business-Model-Canvas.pdf>)

Examples of Business Models:

With this definition in mind, you might now be wondering: What is a business model example?

One popular example of a business model is the subscription model — in which businesses charge a subscription fee (monthly, annually, etc.) for customers to access a service. Of course, this type of business model can be adjusted and customized for each individual business, but using Netflix as an example, let's break it down based on the four points we outlined earlier: What kind of product or service a company will sell, How it intends to market that product or service, What kind of expenses it will face, How it expects to turn a profit.

Disruptive models:

Disruptive business model disrupts the market by addressing to the repressed demands, those demands which have been ignored by the leading providers and manufacturers of the industry, and providing solutions which the current industry has failed to deliver or is incompetent to do so. A disruptive business model only exists if there is an innovative idea behind it which supports its cause.

Only an innovation which has the ability to make people's lives easier at a justified cost can form the base of the disruptive business model. When Sony came up with the idea of a walkman, the company was already a big brand. But with the innovation of walkman, Sony created a new market.

Sources:

Sitography: <https://www.investopedia.com/terms/b/businessmodel.asp>

Sitography: <https://www.feedough.com/what-is-disruptive-business-model/>

What are and which are the new business models?

Lots of people are currently discussing "disruptive Business" models and sometimes they are even already fed up with the disruptive world. But why is this topic so important for everyone and what do we have to know about it? This part should help to understand **why these new disruptive business models** are so important and why everybody should at least have an understanding of the basics of the most successful business models.

Looking at business models is crucial to understand how to newly position your company and how to generate extra income. New business models can also help companies to be more resilient to market dynamics and also diversify their portfolio.


What is a disruptive business model?

Disruptive business models are a type of disruptive innovation that brings a new idea or technology to an existing market. Disruptive market entrants usually capture unmet demands in the existing market. This can either be a Low-End or High-End repressed demand where either the more price sensitive customers or the more premium customers get addressed.

The following graphic shows 9 significant business models that can be disruptive for industries and that everyone should at least be familiar with. Either focusing on Low-End Disruption (e.g. Freemium) or High-End Disruption (e.g. User Experience Premium).

9 Disruptive Business Models	
Freemium Model	Especially for low marginal cost products. Offer a free version that is not perfectly satisfying but already is attractive for customers and try to upsell with more services.
Subscription Model	It aims to bind a customer for a long term by splitting the offered service into a monthly recurring payment. Well known from Netflix.
Free Offerings	Google and Facebook are the best examples. For the user it is completely free to use and the company is trying to generate revenues based on other factors like advertising.
Marketplace Model	One- or two-sided marketplaces are a very popular internet business model. Either the market place sells a set variety of products (e.g. Product Webshops) or it offers a two sided platform like Amazon Partner or Ebay.
Sharing Economy / Access-over-Ownership	Selling limited access-over-ownership rights got famous and popular with Airbnb. It can be used to share goods which are physical assets (houses, cars, etc.) but also intangible assets (software, licenses, etc.)
User Experience Premium	One trend that can be observed with brands like Apple, Tesla, etc. which focuses on realizing higher prices by offering better user experiences.
Pyramid Model	On the internet there are a lot of pyramid models, which mostly are built around affiliate systems. Dropbox, Amazon Affiliate and also Microsoft use this model often.
(Digital) Ecosystem	The most successful business model of our time currently. It locks the customer into a own ecosystem of services and offerings so he does not need to leave. Companies earn along multiple points in the customer journey – Example for this would be Amazon or Alibaba.
On-demand Model	Uber, Cloud Computing or even Services can be bought on demand. This way a "premium access" over time and resources can be monetized according to customer needs.

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1. Freemium Model

One of the most frequently used business models. The consumer receives a product or service free of charge. Either only basic functions are offered and for premium functions, no branding or extension of the services, the customer must then pay. This way you can quickly reach a broad customer base, scale your business into new markets, and generate incomes when converting customers into paying ones.

This model is especially applicable for products or services that have low marginal costs (additional costs per additional customer) or where marketing and customer information has a higher value than the operating costs. The key for such models is also the conversion. You need to find a free solution that is attractive to a customer, but also not perfectly satisfying, so they are willing to pay for the premium.

Typical examples: Spotify, LinkedIn, Xing, Canva.com, MailChimp

2. Subscription Model

Products and services can usually also be offered as subscriptions. An amount that would normally only occur once is split or a new service is created that is billed periodically. The aim is to bind the customer in the long term. In contrast to the one-time purchase, the customer benefits from improvements and extensions of the service.

Non-divisible products can also be converted into a subscription. Amazon has already provided an example with this system where products such as detergents, cosmetics, etc. can also be delivered automatically regularly. Subscription is very powerful as this allows you to generate income over time and grow your company without too many "highs and lows".

Typical examples: Amazon, Netflix, Internet Provider

3. Free offerings

A model that has gained in popularity, especially through Google. For many entrepreneurs, this is also the most incomprehensible business model, but it has great potential for some services. Since such business models usually evaluate customer data for advertising or personalized offers, it is interesting to use a lot of information about customers. When you are considering only a free service, then you also need to plan for a long ramp-up phase. This means you are investing for a long period of time before you reach the critical mass of users to have a profitable business.

Typical examples: Google, Facebook

4. Marketplace Model

For some industries, marketplaces already had or have great disruptive potential. The business model used here is usually a digital marketplace that connects the seller and buyer on a common platform. Money is usually generated via brokerage fees, commissions, or fixed transaction costs. However, it is also possible to use membership

fees on the platform or to generate money through advertising/premium positioning services.

Typical examples: Amazon, Alibaba, Uber, eBay

5. Sharing Economy – Access-over-Ownership Model – Renting & Leasing

In the classic sense, the sharing economy is referred to as letting. Goods or services that can usually only be purchased or made available to another person for a limited period of time. There is the example of car sharing. The car is made available for a certain period of time and a number of km for another person against payment. In general, this can be applied to all products, whether from private individuals or companies, real estate, or intangible assets.

Typical examples: Airbnb, Sharoo, Mobility, Lyft

6. User Experience Premium

This is a premium model that can be easily observed using Apple. A good customer experience adds value to an exchangeable product. The service, the brand, and especially the experience of the customer are improved and premium prices are charged.

Typical examples: Tesla, Apple and Premium-Brands

7. Pyramid Model

The model is a typical sales model that has been available for a number of years. Especially due to the easy billing by technical aids, these pyramid models can be quickly built up and easily managed. It is especially interesting for products with high margins and which can be easily explained.

Typical examples: Amazon Affiliate, Microsoft, Dropbox

8. Ecosystem – Create your own ecosystem

To bind customers to an ecosystem in the long term through a "lock-in" process in a service is a dream for every entrepreneur. For example, if you have a mobile phone from Apple or Android, you are probably included in this ecosystem. You buy the hardware

and use software that may only be compatible with the same system. This makes the change difficult and also prevents new competition from gaining a foothold.

Recommended reading: What is a digital Ecosystem?

<https://whatfix.com/blog/what-is-a-digital-ecosystem-and-how-can-it-help-your-business/>

Typical examples: Apple, Google

9. On-demand Model

Time is money, that is the structure of this business model. The immediate access is sold or also the premium access to "time". The delivery, the product, or the service can be called up at a certain point in time. Video-on-demand, taxi (over) on-demand, and many other systems are good examples. Companies or persons goods or time provide their services for persons without goods and time but with money.

Typical examples: Amazon Prime, Uber, Upwork, Cloud Services

Technologies have changed our world and will continue to do so. We have to realize that classic business models like buying and selling at a premium will no longer work alone. It is, therefore, worthwhile to take a critical look at the 9 major trends in business models and to examine them for your own use. So it may be that you can build up new business fields or even use your own knowledge to get involved in other industries.

Once again, it is important to emphasise that these are examples. A successful business model can consist of various elements and combine different income streams.

Why are these new models are so relevant for female entrepreneurs?

Here are some ideas:

- Female entrepreneurship is crucial for employment, economic growth, innovation, development and the reduction of poverty at large
- women only accounted for 31 % of entrepreneurs (10,3 million) in the EU-28 in 2012 (10), and only 34,4 % of the self-employed in the EU are women;
- women are often only the officially registered owners of firms, for the sole purpose of securing financial concessions and advantageous conditions from credit institutions and European, national and regional public administrations; whereas in reality these women function as 'fronts' since while they bear the business risk the actual decision-making of the company is left to men;

- the female entrepreneurial rate lags behind in all Member States and hides an unexploited growth and prosperity potential;
- various obstacles to female entrepreneurship such as the predominance of women in unemployment, the consistent gap in entrepreneurial activity, and the under-representation of women in management activities, are interwoven and difficult to deal with, and their removal will call for complex criteria;
- quantitative research on female entrepreneurship is scarce but recent studies show that men are more likely than women to prefer entrepreneurial careers;
- female entrepreneurship, once carefully distinguished from 'bogus' self-employment, is a powerful source of economic independence that offers women the opportunity of further integration into labour markets; whereas female entrepreneurship offers the opportunity for women to strengthen their role as business leaders and to induce cultural change both inside and outside their companies; whereas these women can be important role models for girls and young women following in their footsteps;
- women have huge entrepreneurial potential, and female entrepreneurship is about economic growth, job creation and the empowerment of women;
- the decision to become self-employed is an act of self-realisation, but one which calls for a high level of commitment; whereas the high level of personal responsibility leads to exceptionally long working hours, so that self-employment should not be seen simply as an additional source of income; whereas women entrepreneurs can only reconcile family life and work if external circumstances permit, that is to say if suitable childcare is available and fathers play an active role in providing care and running the household
- choices made by women during their education and horizontal and vertical gender segregation in employment mean that fewer women than men would be able to set up a business in the science and technology field or turn an invention into a profitable item. Whereas science and technology, innovation and invention are also concepts that are associated for the most part with men, which renders these fields less attractive to women and results in innovations and inventions by women being recognised and appreciated less;

- female entrepreneurs more often tend to concentrate on sectors that are considered less profitable, such as education, healthcare and community work, as opposed to the male-dominated, high growth-potential sectors of technology and IT, and more often operate in small-scale enterprises with lower growth and turnover; whereas this resulted in 2012 in an EU-28 average net income gap of 6 % between female and male entrepreneurs;
- new green technologies and ecological entrepreneurship constitute a sector that offers enormous potential for developing and promoting parity in entrepreneurship, in terms of both equal access to funding and equal numbers of participating women and men entrepreneurs;
- self-employment in one-woman firms, the arrangement many women find themselves in, does not usually generate substantial profits, so that the women in question are particularly at risk of poverty during their working lives and in old age;
- various studies reveal that female entrepreneurs start businesses with lower capital levels, opting for smaller loans and using family for advice and funding rather than debt or equity finance from banks, angel investors, private equity or venture capital;
- in most cases women entrepreneurs operate in sectors which are secondary from the point of view of economic returns and competitiveness on the market;
- entrepreneurship education, both formal and informal, is key to encouraging more women and girls into the field

Source sitography:

<https://morethandigital.info/en/9-disruptive-business-models-new-opportunities-for-companies/>

<https://bernardmarr.com/the-9-most-successful-business-models-of-today/>

<https://connects.world/business-model/>

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52016IP0007>

Theory on Rethinking production and the fact in CE you could start the process at any point of production

As we know, a circular economy is fundamentally different from a linear economy. To put it simply, in a linear economy we mine raw materials that we process into a product that is thrown away after use. In a circular economy, we close the cycles of all these raw materials. Closing these cycles requires much more than just recycling. It changes the way in which value is created and preserved, how production is made more sustainable and which business models are used. These aspects are explained in more detail below.

From new raw materials to value preservation

The circular system and the linear system differ from each other in the way in which value is created or maintained. A linear economy traditionally follows the “take-make-dispose” step-by-step plan. This means that raw materials are collected, then transformed into products that are used until they are finally discarded as waste. Value is created in this economic system by producing and selling as many products as possible.

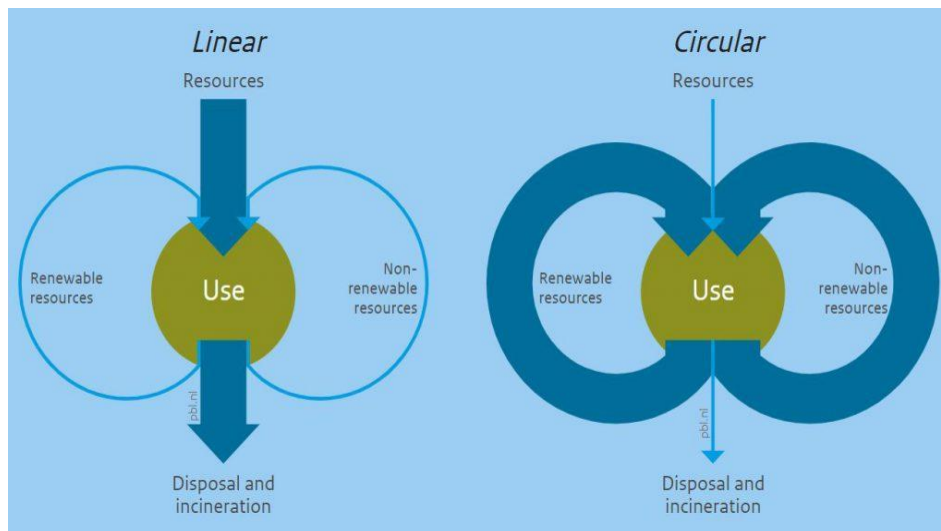


Figure 1: the large reuse of raw materials in a circular economy

Respect for the environment and the ecosystem is not in contrast with economic growth but, from this point of view, it is a complementary objective to that of increasing turnover and profits.

What else is there in a circular economy? A circular economy follows, of mainly, "the 5 business model" (2):

- circular supply chain "from the beginning"
- recovery and recycling
- extension of the product life
- sharing platform
- produced as a service

Finally yet importantly, raw materials are reused (recycled sub 2)) to a high standard. This can be done by using goods with more people, such as shared cars. Products can also be converted into services, such as In this system, value is created by focusing on value preservation.

Circular supply chain "from the beginning"

The model is based on access to renewable, recyclable or biodegradable raw materials (renewable energy, biological materials, etc.) also known as "biological nutrients" as they are perfectly biodegradable; recyclable resources such as metals and minerals are called "synthetic nutrients", as they can be recycled and reused indefinitely

Recovery and recycling

The model is based on the recovery and reuse of hidden sources in "production outputs" and waste products. The model has several realisations: from a "closed circuit" supply chain to "open circuit" models where the waste materials can be resold to other companies as raw materials. the advantages are many: reduction of costs related to raw materials, waste management, environmental impact; creation of points of interaction between customers and businesses; revenues from the sale of unwanted by-products and so on...

Extension of the product life

It is well known that companies manage to program the obsolescence of products so that they stop working after a certain time, forcing the consumer to make a new purchase. The paradigm of product life cycle extension, on the other hand, aims at extracting as much value as possible from each unit of resource consumed, developing products to make them last for a long time and providing updates, services, spare parts.

The ways in which this model is expressed are:

- ✓ build for the **long life**;

- ✓ **to recondition**, that is to restore the products to their original state and resell them as new;
- ✓ **withdraw / exchange / buy back** to put back on the market;
- ✓ **update**;
- ✓ **"refill"**: restore a function that runs out more quickly and the product itself;
- ✓ **repair**, for customers satisfied with the performance of the product and not interested in replacements.

Sharing platform

The model, linked to the "sharing economy", is based on the offer of a platform to put the owners of consumer goods in contact with each other with other users interested in using them. The platform increases the productivity of assets, allowing shared access or co-ownership, reducing the demand for resources and productive activities.

The "key factors" for the implementation of the model are:

- ✓ **convenience**: increase in the range and availability of goods;
- ✓ **price**: access to cheaper products;
- ✓ **quality**: guarantee of quality standards with rules regarding products and / or services, with monitoring activities;
- ✓ **trust**: there are many risks associated with sharing, for example vandalism. For this reason, the managers of these services must provide appropriate guarantees.

Produced as a service

This "business" model is aimed at purchasing a function or certain services, rather than a service. Businesses retain ownership of the product and offer it to one or more users through rent, lease, use paid according to consumption (for example, a car paid for based on kilometres travelled or a printer paid for based on printed pages).

There are two challenges in implementing this model:

- ✓ the initial investment which requires that the production costs, in technology and resources, can be absorbed by the company budget;
- ✓ the need for a careful study aimed at economic convenience from the user's point of view: it may be that the user is more motivated to rent / use expensive goods as a subscription, the cost of which is so high that it cannot be afforded purchase.

This model is compatible with most of the other "circular business" models (80% of the companies studied combine this model with one or more of the other models, especially the "Life cycle extension" and the "Sharing platform".

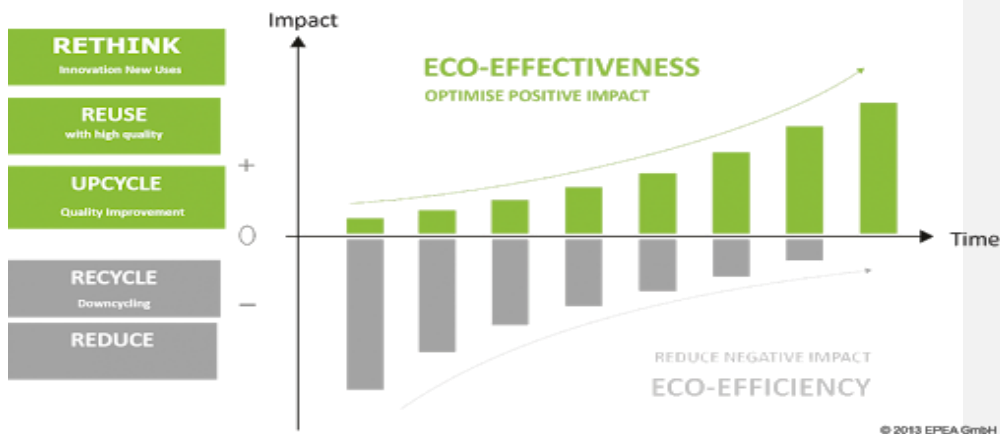
From eco-efficiency to eco-effectiveness

The perspective on sustainability is different in a circular economy than in a linear economy. When working on sustainability within a linear economy, the focus is on eco-efficiency, which means we try to minimise the ecological impact to get the same output. This will extend the period in which the system becomes overloaded (Di Maio, Rem, Baldi, and Polder, 2017). Within a circular economy, sustainability is sought in increasing the eco-effectiveness of the system. This means that not only the ecological impact is minimised, but that the ecological, economic and social impact is even positive (Kjaer, Pigosso et al., 2019). When we focus on eco-effectivity to create a positive impact, we strengthen the ecological, economical and societal systems by using them.

We can illustrate the difference between eco-efficiency and eco-effectivity with an example about the production of beef. Raising cows for beef results in emissions of methane gas, a strong greenhouse gas. In a linear economy, the production of beef is made more sustainable by changing the way cows are fed, so that they emit less methane gas for the same amount of meat. This makes production more eco-efficient.

In a circular economy, production is made more sustainable by not making beef from cows, but for example by creating a meat substitute. For the beef substitute, plants are then grown that contribute to biodiversity, employment and landscape management. In this way, the ecological, economic and social impact of the same production of 'beef' is increased.

Figure 2: the difference between eco-effectiveness and eco-efficiency (EPEA GmbH, 2013).



As a result, the value is fully retained or even increased.

For example: we grind concrete into granules that are used to produce the same or a stronger wall.

This is different in a linear economy. An eco-efficient system typically works on downcycling: a (part of a) product is reused for a low-grade application that reduces the value of the material and makes it difficult to reuse the material flow again (Bocken, Bakker & De Pauw, 2015; Ellen MacArthur Foundation, 2014).

For example: concrete residues are processed in asphalt in the road surface. This asphalt is lower in value and it is harder to process it and/or use it again.

Other business models

A linear model deals with raw materials in an inefficient way, because the emphasis is not on their conservation.

In a circular economy, this is the focus.

This means that other business models are also used in a circular economy, with more emphasis on services rather than products. An example of a model that facilitates the transition to the circular economy is a product-service combination (Product-As-A-Service System), which is seen as a model to integrate products and services (Michellini, Moraes & Cunha et al., 2017). A widespread example of a product-service combination is the Xerox printer system, in which companies receive a printer free of charge and pay per copy. This system fits well within the circular economy, because as a manufacturer, Xerox has an interest in ensuring that the printer will last a long time, by being able to repair and update it. In the linear sales system, the manufacturer often benefits if the product breaks down quickly so that it can sell a new product.

The difference between a linear and a circular economy

	LINEAR	CIRCULAR
Step plan	Take-make-dispose	Reduce-reuse-recycle
Focus	Eco-Efficiency	Eco-Effectivity
System boundaries	Short term, from purchase to sales	Long term, multiple life cycles
Reuse	Downcycling	Upcycling, cascading and high grade recycling
Business model	Focuses on products	Focuses on services

What is the role of education?

The (transition to a circular economy has much to gain from good education; people who are taught to think and act in a circular way. A circular economy will change the labour market. A circular economy will feature a large service industry because of the rise in demand for services surrounding reuse and repair of products. It is also vital for product designers to take circular ideas from practice to reality. In order to apply these principles in practice, education incorporate and teach these principles as well, across specialisations.

The Leren voor Morgen (Learning for Tomorrow) cooperative is a group of collaborating organisations that are committed to learning for sustainable development. Commissioned by the Ministry of Infrastructure and Water Management, Leren voor Morgen has launched a multi-year programme to identify, develop and embed circular skills in vocational education: Circular Skills. The programme focuses first on the construction and installation sector and then on other sectors. More information on Leren voor Morgen can be found on their website. <https://lerenvoormorgen.org/en/>

The United Nations Economic Commission for Europe (UNECE), Strategy for Education for Sustainable Development, published a report entitled 'Learning for the Future' which details competences for educators. These competences should be seen as a "goal to which all educators should aspire". It aims to provide a framework for the professional development of educators.

References:

- (1) Gabriele Turco, "Circular economy: definition and European policies", Ius in itinere, 22 December 2020. Available at: <https://www.iusinitinere.it/economia-circolare-definizione-e-politiche-europee-33885>, consulted July 2021;

- (2) cfr. Peter Lacy, Jakob Rutqvist and Beatrice Lamonica, *"Circular economy: from waste to value"*, EGEA, Milano, 2016;
- (3) cfr. Lacy, Rutqvist and Lamonica, *"Circular Economy"*, cit.;
- (4) the classic example of the "returnable vacuum" with which an empty bottle is brought back to the point of sale, so that it can be refilled

Stakeholders analysis

The establishment of circular business models underlines the importance of relationships with stakeholders, whose expectations are highly relevant for the formulation of a successful strategy (Hienerth et al., 2011; Horisch et al., 2014); infact, these conditions are essential for the company's growth in the medium-to-long term (Salvioni et al., 2019).

Thus, "stakeholder engagement" (Freeman, 1994; Mitchell et al., 1997; Greenwood, 2007; Barone et al., 2013) can contribute to the implementation of circular business models. Such engagement can help companies identify stakeholder expectations and promote their fulfilment; in this regard, it is crucial to prevent potential negative effects due to the lack of an effective dialogue (Cumming, 2001).

This approach requires the preliminary mapping and classification of stakeholders as well as the consequent selection of the most convenient ways of interaction (Gable, 2005).

The standard formulated by AccountAbility states that with reference to the engagement level (low, medium, or high) and the nature of the relationship (short, medium, or long term), engagement should be ensured through various communication approaches (enumerated below), which differ in terms of effectiveness and pervasiveness.

- ✓ **Remain passive:** No active communication is required, and the engagement is mainly based on letters, the media, and websites.
- ✓ **Monitor:** One-way communication (from the stakeholder to the organisation) takes place through the media and internet tracking, and second-hand reports from other stakeholders, possibly via targeted interviews, are included in this category.
- ✓ **Advocate:** One-way communication (from the organisation to the stakeholder) occurs via pressure on regulatory bodies, lobbying efforts, and other advocacy efforts through the social media.
- ✓ **Inform:** One-way communication (from the organization to the stakeholder) takes place through bulletins and letters, brochures, reports and websites, speeches, conferences, and public presentations.

- ✓ **Transact:** Limited two-way engagement takes place through public-private partnerships, private finance initiatives, grant provisions, and cause-related marketing.
- ✓ **Consult:** Limited two-way engagement takes place, wherein the organization asks questions and the stakeholders answer them. This approach is based on surveys, focus groups, meetings with selected stakeholders, public meetings, and workshops.
- ✓ **Negotiate:** Limited two-way engagement occurs for discussions on a specific issue or a range of issues, the goal being to reach a consensus. This engagement mainly involves collective bargaining with workers through their trade unions.
- ✓ **Involve:** Two-way or multi-way engagement occurs, involving learning on all sides, but the stakeholders and organization act independently through multi-stakeholder forums, advisory panels, consensus-building processes, focus groups, and online engagement tools.
- ✓ **Collaborate:** Two-way or multi-way engagement takes place leading to joint learning and decision-making through joint projects, joint ventures, partnerships, multi-stakeholder initiatives, and online collaborative platforms; and
- ✓ **Empower:** Stakeholders play a relevant role in shaping organizational agendas; thus, their engagement is a key aspect in the firm's governance, strategy, and operations (AccountAbility, 2015).

Stakeholder Engagement and Circular Business Models

Stakeholder engagement is also emphasized in some international frameworks (Ellen McArthur Foundation, 2013; Accenture, 2014), clearly pointing to how companies should rethink their business models when implementing the principles of the circular economy. Such emphasis points to strategic resource usage and safeguarding the environment, which is increasingly adversely affected by soil degradation, water acidification, air pollution, waste generation, and carbon emissions. In fact, three of the nine so-called "key planetary boundaries", namely climate change, rate of biodiversity loss, and human interference with the nitrogen cycle, are believed to be the most adversely affected (Steffen et al., 2015).

The ability to create value is primarily associated with the following aspects:

- a. reorientation of consumption to more responsible/environmentally aware behaviour,
- b. preferential use of sustainable and renewable resources,
- c. adoption of measures lengthening product/service life cycles,
- d. introduction of regulations (fiscal and non-fiscal) encouraging the conservation of the natural environment,
- e. formulation of specific laws aimed at promoting the circularity of products/services (e.g., disposal of batteries, packaging, and textiles),
- f. promotion of eco-innovation processes,

- g. development of specific technical capabilities (green skills) and specialized profiles
- h. in the circular economy arena (e.g., circular economy manager) in order to adapt the
 - i. organizational structure to the new strategic needs,
 - j. waste reduction and reconversion to secondary resources,
- k. orientation of the firm toward corporate social responsibility principles, sustainable development, and climate neutrality, and
- l. diffusion of an organizational culture based on ecosystem and biodiversity protection.

Within circular business models, the optimization of the company's performance requires the contributions of different stakeholders according to their specific roles and capabilities.

Companies should ensure the engagement of relevant stakeholders before selecting the strategic objectives and implementing strategies.

Indeed, the engagement of key stakeholders is a necessary condition for the implementation of decisions related to the circular economy, whose principles are generally based on stakeholders' responsible and ethical behaviors.

Thus, the need for engaging stakeholders – both internal and external – increases with time; in particular, attention must be focused on specific groups, as explained below.

- ✓ **Consumers:** their engagement is essential, both for understanding their expectations and for **orienting** them toward the virtuous practices of responsible and informed consumption. Effective engagement practices should ensure the diffusion and sharing of information required for identifying the available opportunities for the long-term use of materials (maintenance, reuse, refurbish, recycle, etc.) and sharing the use with other user groups. In particular, the reuse of products implies changing the role of the consumer to that of a potential supplier. Moreover, consumer engagement can serve as a source of learning and innovation as long as they play the role of co-producer in line with the proactive engagement approach (Kozłowski, 2018; Tolkamp et al., 2018).
- ✓ **Suppliers:** suppliers provide raw materials, which can be categorized as either biological or technical nutrients in reference to the two main components of the ecosystem (the biosphere and the technosphere, respectively). Supplier engagement should promote the sharing and alignment of values between suppliers and customers in order to ensure that procurement occurs according to the principles of circularity and sustainability (i.e., preferring renewable and socio-environmentally low-impact resources). Thus, the engagement of suppliers should be based on sharing the company's circular economy goals as well as their orientation toward renewable material choices.
- ✓ **Government:** government should encourage engagement to facilitate the understanding of the company's needs and the difficulties in implementing the transition toward the circular economy. In this context, Governments can introduce specific measures (subsidies, incentives, tax breaks, and funding startup ideas) to support innovative solutions for environmental protection.

Με σχόλια [1]: orienting

- ✓ **Industry partners:** the engagement of industry partners may produce specific positive effects within the circular economy in terms of scale economies, profitable cost and risk sharing, potential logistic advantages, and better competitive positioning. The engagement and dialogue of these stakeholders should be carried out by analyzing and sharing the company's strategic objectives, involving industry representatives, and ensuring compliance with the principles of fair competition and transparency.
- ✓ **Universities and research centers:** the academic world pursues research, which is a potential innovation condition for firms that decide to renew their business models. It is important to establish relationships via dialogue and long-term interactions aimed at sharing know-how and selecting effective ways to introduce innovative circular products/services.
- ✓ **Employees:** employees must be engaged to ensure the development of new skills as well as reshape the values and ethical principles of the company's cultural system. Engagement of employees may promote the establishment of innovative processes aimed at reducing negative impacts on the ecosystem. Moreover, such engagement supports the organization's implementation of the circular economy's objectives selected by the governance bodies to promote reuse and recycling by consumers.
- ✓ **Investors:** investors' financial support for a company's strategic decisions is based on the communication and sharing of its strategic objectives. In particular, the engagement process involving investors is relevant for cases with highly fragmented ownership ((in terms of the relationship between shareholders and the management)).

Stakeholder engagement is assuming growing relevance as an approach supporting the success of circular business models. In fact, the company's ability to listen to and engage relevant stakeholders and the possibility of creating value in the long term are directly related to establishing positive relationships based on trust, consent, and sharing of principles and behaviors.

The capacity to integrate the selected strategic objectives with stakeholder engagement is a key challenge for companies that decide to implement circular business models. Companies must develop the ability to identify, listen to, and engage with stakeholders that are actually relevant for the implementation of their strategy, considering the new conditions implied by the circular economy model.

In this regard, this study underlines the strategic relevance of engaging specific stakeholders in order to establish successful business models, while simultaneously underscoring the need to better investigate the firm's behaviors through a wider empirical analysis.

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Legal implications and barriers in each country

There are several policy measures that stimulate a circular economy,

In order to switch to a circular economy, the central government and other governments are implementing various measures.

For example, the central government of the Netherlands has set up the Versnellingshuis Nederland Circular, concluded several Green Deals, and launched the programmes Van Afval Naar Grondstof (VANG) and the Ruimte in Regels voor Groene Groei (Space in Rules for Green Growth).

In 2019, the central government and various partners set up the Versnellingshuis Nederland Circulair (Acceleration House Netherlands Circular) to assist entrepreneurs in scaling up circular business models. Entrepreneurs can ask questions about knowledge, financing and legislation and regulations.

What policies are still necessary?

With additional and sometimes different policies, the Dutch government (**for example**) can promote the transition to the circular economy even better.

For example, definitions of waste and raw materials in legislation and regulations have become outdated. In addition, policy measures still focus mainly on recycling and traditional partnerships, and a tax shift from labour to raw materials has not yet been achieved. In addition to the national level, it is important that the Dutch and European governments continue to manifest themselves internationally for the circular economy. Worldwide, the amount of mined raw materials is still increasing every year.

In October 2019, the Task Force Waste Review published its report on regulatory and legislative barriers to the circular economy. The most important observation made by the Task Force was that the obstacles are not so much found in legislation and regulations, but for the most part in their implementation. Rules are often not interpreted in the same way; experimenting with new production processes is sometimes difficult. The Task Force sees that as a result initiatives remain small-scale, while the step must now be taken towards more and more extensive innovative processes.

Which grants are available for circular businesses?

Both the Netherlands and the EU provide various types of grants for entrepreneurs, governments and financial institutions.

There are many funds that support social entrepreneurs in the development or expansion of a circular product or company. In addition to the funds, there are also investors and crowdfunding platforms that can offer a solution. The network Social Enterprise NL has grouped these services for "Circular and sustainable production" in their Finance Tool.

Technical innovations are promoted in each business sector as companies of all sizes can use the WBSO and RDA subsidies to reduce the financial burden of R&D-projects. WBSO lowers labor costs and the RDA provides an additional deduction for other expenses and expenses for the project. Besides the WBSO and RDA companies can also use the Innovatiebox (Innovation box).

The Innovatiekrediet (Innovation Credit) is intended for the gap in the capital market where entrepreneurs are trying to get their innovative concept to work, but cannot sell the product yet. The credit is risk bearing and only needs to be paid back if the innovation succeeds. In addition to grants the Ministry of Economic Affairs partly guarantees for companies that want to take out a loan, but cannot offer the bank enough security that they will pay it back. SMEs can use the Borgstelling MKB Kredieten (BMKB; Guarantee SME Loans) and medium to big enterprises can use the Garantie Ondernemingsfinanciering (GO; Guarantee Scheme)

Practical examples on how companies design commercial structures and strategy to make the shift to CE

The crucial theme of design for prolonging the life of products, for reuse and recycling, and that of secondary raw materials which form the heart of the circular economy not only offer efficiencies and synergies between supply chains, but also new opportunities for the Italian resourcefulness and creativity, as the cross-section of circular Italian manufacturing in the following pages clearly shows.

We are talking about new processes, new products, new skills that universities are creating and introducing on the market for companies to use.

So the circular economy, spanning many different fronts, offers new lifeblood for the green economy and Italian manufacturing.

Gradually, diffusion of the circular approach will enable more and more companies to free themselves from dependence on costly virgin resources, while also increasing

resilience and competitiveness: this will favour their strategic adoption of sustainable business and the creation of shared value for society.

The stories told below demonstrate how the principles of the circular economy generate innovation at all levels: in Companies,

Start-ups, Foundations, Research Centres, Universities, Consortia and Associations... all of which share the same passion for innovation and a better future.

Case History

ABOCA

Bringing health benefits to the body with natural products that return to nature after use, without leaving behind a single trace of unnatural substances in either the human body or the environment.

That is the mission of Aboca: **a company based on the philosophy of circularity.**

A leader in Italy and worldwide for health and wellbeing products made from medicinal herbs, launched near Arezzo in 1978 thanks to the intuition of Valentino Mercati, inspired by the deep connection between human and environmental health. Mercati understood that innovation can spring from combining the legacy of a millenary history with the potential offered by new scientific and technological discoveries. He created an unbroken production chain, extending from the production of basic ingredients derived exclusively from organically grown herbs all the way down to testing the final products' pharmaceutical and clinical effects: 1,400 hectares of organically cultivated land, 80 plant species, 1,300 employees, 33 international patent families, 14 countries importing its products, and – unlike other pharmaceutical products – zero synthetic non-biodegradable molecules in its preparations. In addition, Aboca reuses all waste and wastewater produced: either as fertiliser or for animal feed.

Source sitography :

www.aboca.com

ALISEA

In a circular economy the value of one company's waste depends on how another company can make use of it.

Alisea makes this value tangible by putting waste-producing companies in contact with those who have waste-using ideas. Many companies entrust Alisea with the manufacture of personalised merchandising made of recycled materials, reinterpreted in unique ways by Italian designers and artisans.

Founded in 1994, the company based in the Province of Vicenza makes objects out of industrial waste and sorted waste.

Even reshaped for other uses, these objects retain a kind of memory of their original identity. An example? Perpetua, the pencil with no wooden surround, made of 80% recycled graphite (otherwise destined for landfills) which never breaks and continues to write even when blunt.

The packaging that comes with it is its ID card, because it highlights the origin of the raw material employed. Its pro-innovation and pro environmental message is not channelled only through its role as a personalised company gadget: In 2017 it ended up in the hands of the world's leaders... chosen as a gift from Italy, the host nation, to all of the delegations at the G7 summit in Taormina, Sicily.

Source sitography :

www.alisea.it

AMETHYST

Water is the most circular of all natural resources but when it becomes polluted during its cycle, its potential for reuse – and therefore its vocation for circularity – is seriously compromised. In aiming to address a problem that is causing permanent damage to the environment, Amethyst has created an innovative solution for purifying wastewater, inspired by nature. Its Zeofito technology – which won the "Best innovation for Eco-sustainability and the Environment" award at the Ecomondo fair in Rimini in 2016 – is a patented biotechnological phyto-depuration system which uses porous volcanic rock, plant species such as marsh reeds, and microorganisms selected according to the kind of water pollution to be treated.

This system is especially useful for winemaking companies which generate large amounts of wastewater, particularly during the grape-harvesting period. Amethyst's major customers include Antinori, Banfi and Planeta. In 2016, the company based in Alba (CN), after launching WIDE (Wine Design), a joint project with Pininfarina for the design of eco-sustainable wine cellars, joined with other parties to launch the WISE Association (Wide Innovation for Sustainable Environment), which works to spread the culture of eco sustainability and circularity in the agro-industry.

Source sitography:

www.amethyst.it

ASTELAV

A second life for home appliances and for people. That is the aim of RIGENERATION, the project launched by Astelav in partnership with Sermig. Astelav has been distributing spare parts for domestic appliances since 1963. Founded by Giorgio Bertolino, Astelav has become one of the main European distributors of spare parts for household appliances. With an inventory of 25,000 different items in a 7,000 m² warehouse, Astelav ships around 200 orders a day in Italy and to 75 countries worldwide.

Together with Sermig (Youth Missionary Service of Turin), Astelav leverages its experience in spare parts to refurbish discarded large domestic appliances such as washing machines, dishwashers, refrigerators and ovens that would otherwise become WEEE waste destined for landfill. In dedicated workshops, using specialist technicians and exclusively original spare parts, RIGENERATION gives a second life to household appliances, which can be purchased — including via the www.ri-generation.com website — for less than half price and with a one-year warranty. The project is revitalising not just appliances but also people, by giving jobs to people in need, who have the chance to learn a trade in the RIGENERATION workshops.

Source sitography: www.astelav.com

BIONAP

Innovation also means looking where others don't: at what's discarded. Take the bergamot plant, for example: normally this is used only for its precious essential oil, obtained by cold-pressing the skin of its fruit. The rest of the plant has always been thrown away. That's what Bionap decided to use: from bergamot juice it extracts flavonoids (polyphenolic compounds) that help control the so-called "bad" cholesterol (Ldl) in human blood. Bionap is an Italian company that specialises in the production of extracts derived from Mediterranean plants and fruit, especially from Sicily. Its zero-kilometre products are used in the food supplement, nutraceutical and cosmetics sectors. From its base in Belpasso (Province of Catania), Bionap creates products used in order to relieve bowel irritation, made from artichoke leaves. It also offers a patented extract obtained from pruned olive leaves and prickly pear pads which benefits the mucosa of the digestive system and soothes gastric disorders. Then there are its cosmetic products: for example, Bionap has developed a product that uses the juice of prickly pear pads to help healing processes in light wounds and to moisturise the skin.

Source sitography:

www.bionap.it

CNR

The challenge posed by the circular economy is something that Italy's National Research Council, the CNR, could not fail to address. Research institutes connected with the CNR have been involved in projects concerning material circularity and the re-use of waste. The ITIA - Istituto di Tecnologie Industriali e Automazione - has developed a pilot plant with innovative technologies for end-of-life management of mechatronic products: the repair, remanufacturing, re-use and recovery of materials.

The ISTM - Istituto di Scienze e Tecnologie Molecolari - in collaboration with the Istituto per lo Studio delle Macromolecole (ISMAL), has presented the RiceRes project, designed to valorise waste from rice production. For every ton of rice 70 kg of chaff and 200 kg of husk respectively are discarded during the whitening process, whilst 1.35 tons of straw are abandoned on the ground. Biomass otherwise destined to be burnt or buried can instead be put to use: the straw can improve the mechanical properties of various insulating materials; bio-silica can be obtained from the husk for use in preparing bioplastics; thanks to a technology developed by the researchers - an oil can be extracted from the chaff, which can be used in preparing bio-adhesives and products for chemical, alimentary and cosmetic products.

Source sitography:

<http://www.bi.ismal.cnr.it/>

<http://www.istm.cnr.it/>

<https://www.cnr.it/it/istituto/103/istituto-di-sistemi-e-tecnologie-industriali-intelligenti-per-il-manifatturiero-avanzato-stima>

EATALY

A name that has become synonymous with good food, gastronomic culture and typical Italian specialities all over the world. Over the years Eataly has become a kind of calling card for Italian food and for Italian creativity and skill in general. Selling typical products involves respecting their local origins, and therefore means supporting the areas and contexts that gave birth to them. This explains why, since the year 2016, in its retail locations, Eataly has displayed 'seven moves' for reducing waste and facilitating its recycling or elimination.

The "Obiettivo Rifiuti Zero" ("Zero Waste Goal") is a training and information project that Eataly offers its employees and customers, in order to promote recycling and the reuse of waste materials. This includes differentiated waste sorting in company retail stores, kitchens, warehouses and public spaces, and recycling initiatives where organic waste

is transformed into enriched soil and other waste materials become new objects. For wrapping purchased food products, and for food packaging and consumption contexts, Eataly uses Mater-Bi, a bioplastic made by Novamont which is biodegradable and compostable as an organic substance. Bags, cutlery, plates and glasses, packaging for fresh products, gloves: all of these products no longer end up in landfills, instead "returning to circulation". An initiative that was first launched in Italy and subsequently involved Eataly sites in the United States, and more recently in Russia.

Source sitography:

https://www.eataly.com/us_en

Main Source Sitography:

<https://www.italiacircolare.it/it-it/tag-100-italian-circular-economy-stories.aspx>

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