

Sustainable development: Innovations in business

Robert Romanowski
Editor



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Robert Romanowski
Editor



Poznań 2021



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PREFACE

Innovation and sustainable development have become buzzwords in the 21st century with the idea of creative destruction launched by Joseph Alois Schumpeter being the main base for evolutionary economics. However, new institutional economics helps to understand the necessity of support provided to entrepreneurs and innovators by science and administration to reduce the risk of launching the said innovations. This e-book is devoted to selected types of innovation. Every type of innovation is described with the use of theoretical background and is enriched by adequate case study.

Traditional division into four types of innovation, proposed by Schumpeter (1934), containing product, process, organizational and marketing innovations, was widely accepted, including European Union institutions (OECD/Eurostat, 2008). The concept of innovation has long been dominated by a technical approach to the innovation process, despite the economic arguments exposed by one of the precursors of the theory of innovation and, at the same time, the school of evolutionary economics—J.A. Schumpeter. Frequently, in the context of innovation, it is indicated that organizational and marketing aspects play a part in the successful introduction of innovation onto the market.

The structure of the book is based on the typology proposed by Keeley, Walters, Pikkell and Quinn (2013, table 1), which focuses on the economic character of innovations. Ten types of innovation are directly related to Schumpeter's and Oslo Manual classification. A new set of innovations emphasize the economic side of innovation process. The technical novelties are to support new configuration, offering or customers' experience. This new approach is based on presumptions coming from design thinking idea, leading to user—driven innovation and on cooperation with institutions and entities supporting innovation process.

The chapters are devoted to every type of innovation, grouped into three major parts: innovations based on configuration, offering and experience. In the book, configuration includes types of innovations focused on innermost workings of an enterprise and its business system. Offering part contains the types of innovations, that are focused on an enterprise's core product (good or service), or a collection of its products. The last part, dedicated to innovations based on experience, is focused on more customer-facing elements of an enterprise and its business system.

Table 1. Ten types of innovations

| Profit model | Network | Structure | Process | Product performance | Product system | Service | Channel | Brand | Customer Engagement | 10 types |
|---|---|---|--|--|--|---|---|--|---|---------------------|
| Configuration These types of innovations are focused on innermost workings of an enterprise and its business system | The company works with other firms or surprising collaborators to develop new offerings that drive a shift from business as usual | The company has a unique or unusual organizational structure and approach to attracting the best assets | The company is uniquely skilled at doing or delivering across goods, services and platforms | Offering These types of innovations are focused on an enterprise's core product (good or service), or a collection of its products | The company makes multiple products that connect with one another in unique ways | The customers rave about their interactions with the company, particularly those instances where things went wrong, and the company somehow made everything right | The company delivers its offerings and users in the ways that challenge or confound what is usual within the industry | The company has an unusually distinct or vivid identity, particularly when compared to the rivals | The offerings confer a unique identity, status, or sense of recognition to users, and they become a part of their lives | (Keeley) |
| | | | | The company produces a notably superior offering that dominates market share or earns a substantial premium | | | | | | |
| Ad-supported Bundled pricing Flexible pricing Freemium Membership Premium | Alliances Collaboration Franchising Open innovations Secondary markets Merger/Acquisitions | Competency Centre Corporate university Decentralized management Incentive systems Knowledge Management Organizational design | User generated process Flexible manufacturing Intellectual property Lean production On-demand production Process automation | Ease of use Engaging functionality Environmental sensitivity Safety Styling | Extensions Plug-ins Integrated offerings Modular systems Product bundling Goods/service platforms | Guarantee Loyalty programs Personalized service Self-service Supplementary service "Try before you buy" | Cross-selling Experience centre Flagship store Go direct On-demand Pop-up presence | Brand extension Certification Co-branding Component branding Private label Transparency | Community and belonging Curation Experience Simplification Mastery Personalization Status and recognition | Tactics/instruments |

Source: (Keeley et al., 2013).

Sustainable approach is described within case studies, which come from countries represented by the Authors.

The first chapter, entitled *Business model as an innovation*, is dedicated to business model as an innovation and includes CDProjekt Red case study, the publisher of the *Witcher* games series from Poland. In the second chapter, entitled *Network as an innovation: social innovation—The case of the hospital help initiative during Covid-19 pandemic*, the Authors focus on network as an innovation. They describe interesting case study of www.wsparciedlaszpitala.pl platform, which is a result of scientists' and practitioners' initiative to support hospitals during Covid-19.

The purpose of the third chapter, entitled *Structure as an innovation*, is aimed to present basic theoretical fundamentals in the field of structurally significant formations that companies apply in the process of their business operations, market projections and innovative changes. The Author describes Bulgarian industrial companies, PIM-Ltd and M+S Hydraulic Plc., operating in steel and construction sector.

The aim of the fourth chapter, entitled *Process as an innovation*, is presentation of key essential aspects of innovation and their specific diversity. The case of company from Bulgaria, i.e., Tomika Metal JSCo, that have implemented business process innovations is described, as well as the results of the innovation changes.

The fifth chapter, entitled *Sustainable agriculture: Development of organic farming. Case study of the Czech Republic*, includes a description of two types of innovation, a group within offering part, product performance and product system as innovations, typical of big international companies. They are shown on the example of best Czech organic farm, located in Milinov. The case study relates to the future of organic farming development, which could be considered as an innovative alternative approach for future generations.

The sixth chapter, entitled *Service as an innovation*, opening the last part of the book, is dedicated to innovations based on customer experience. In this chapter two case studies from Czech Republic, which map two different service innovations can be found. The first one describes implementing new CRM system and several new processes around it, including product use enhancements, offer of warranties and guarantees. The second one shows the development of an old books seller, based on the innovation in information and education. Both types of innovation are increasingly delivered through electronic interfaces, remote communications, automated technologies, and other solutions.

In the seventh chapter, entitled *Innovations on rail freight market*, dedicated to channel as an innovation, the Authors describe innovations on rail freight market on the example of the Croatian national carrier HŽ Cargo, which built its competitive advantage by such innovations as intermodal terminals, RO-LA, and digitalization of business operations.

The eighth chapter, under the title of *Brand as an innovation—the case of Czech wine*, focuses on Czech wine, sold under the brand “Svatomartinske”. The Author

takes us on a journey around winery sector and viticulture, that are among the oldest craft industry in the Czech Republic. Innovation in local wine producer is shown, which gives us the opportunity to see the process of new product launching in low technology industry. It needs to build good relationships with local community, including customers and local government with its events.

In the last chapter, entitled *Storytelling in business—how to increase customer engagement?*, dedicated to customer engagement, the Author emphasizes storytelling in business. The question “how to increase customer engagement?” is the core idea of the text. Storytelling, as a marketing innovation, was described using two case studies: Polish market regarding the use of storytelling in employee recruitment and customer engagement.

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On behalf of the entire team of authors, I would like to thank the reviewer for the valuable comments. We would also like to thank the employees of the Publishing House of the Poznań University of Economics and Business for their help in publishing the eBook. We hope, as a team of authors, that thanks to international cooperation on the book, a series of joint research, organizational and teaching works will be continued.

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BUSINESS MODEL AS AN INNOVATION



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Abstract: Business model is the way in which an organization develops relationships with their market environment and converts products into cashflow. The chapter focuses on business model as a type of economic innovation. This chapter provides a case study on CD Projekt Red company, the publisher of the *Witcher* games series. The case of the game covers three types of innovations, i.e., business model, product performance and customer engagement, and is an example of multidimensional innovation process.

The case is related to both innovation types: business models and customer experience ones. The aim of this chapter is to diagnose business model innovations on the basis of *The Witcher 3: Wild Hunt* game created by CD Projekt Red.

Keywords: business model, CD Projekt Red, customer experience, product performance, sustainability.

1.1. Introduction

“Differentiate or Die” says a slogan which is well-known among marketers and that sounds like an easy recipe for success, but in practice it becomes more and more difficult to differentiate from competitors. Market is saturated and globalisation caused that almost all companies need to compete not only with local competitors, but also global rivals. However, competition is the reason why companies are still trying to develop and to be better than others. Development is driven by competition. At the same time companies try to achieve a competitive advantage, which can be understood as a better position on the market in relation to the competitors. When a company has a competitive advantage, it can be assumed that the company does something better, which allows to achieve better results (Godziszewska, 2001). A competitive advantage can have its source inside the company—when the company is cost leader, or outside the company when it is a result of specific properties, which provide the customer with greater value (Mruk, Pilarczyk, & Sławińska, 2015). The biggest challenge for companies is that, not all companies can be the leader offering the lowest prices. Just a few of them can be cost leaders, the others need to focus on outside advantages and differentiation strategy. While differentiation strategy refers to how to be unique among the companies in the industry, the development strategy reflects the plan showing how the company will achieve that goal (Mruk et al., 2015). Both strategies are reflected in business model. Business model is a concept which links the idea and the ways of putting it into practice. Comparing business models of different companies from the same industry can give researchers knowledge about the properties that are really important and guarantee success in specific business. The aim of this chapter is to diagnose business model innovations on the basis of *The Witcher 3: Wild Hunt* game created by CD Projekt Red.

1.2. Theoretical background

Every company has a business model, whether that model is explicitly articulated or not (Chesbrough, 2006). Companies mention their business model in financial statements and claim that innovative business model helps achieve success. Apple, Facebook and Google are companies which are believed to be successful because of innovative business model. Also, fast fashion company Zara is considered a company which achieved success because of new business model it developed.

Although the business model concept is widely used, there is no one generally accepted definition of the term “business model”. One of the first definition was formulated by Timmers (1998), who described business model as an architecture

for the product, service and information flows, including a description of various business actors and their roles; a description of the potential benefits for various business actors; and a description of the sources of revenues.

A very simple definition was introduced by Stewart and Zhao (2000), who approach the business model as “a statement of how a firm will make money and sustain its profit stream over time”. Chesbrough in his definition states that the core of the business model are two functions: creating and capturing values. A very similar definition was introduced by Osterwalder and Pigneur (2010): a business model describes the rationale of how an organization creates, delivers, and captures value. Cyfert and Krzakiewicz (2011) suggested that business model denotes an optimal way of creating value in the specific context of the organization’s functioning, and it allows to answer the questions: who the client of the company is, what kind of values are expected to be delivered and what the costs and revenues of the business are.

Morris, Schindehutte, and Allen (2005) stated that “business model is a concise representation of how an interrelated set of decision variables in the areas of venture strategy, architecture, and economics are addressed to create sustainable competitive advantage in defined markets”. The definition by Morris et al. seems to be most useful to describe business model in fashion industry. It not only highlights the meaning of the strategy and the fact that competitive advantage is crucial, but also mentions that competitive advantage needs to be sustainable. A short term profit is no longer a value in fashion business; what really matters for the future of the company is the ability to create a long term value.

The quoted definitions can be divided into three group. The first group treats business model as a way of earning money, while the second can be described as value concerned approach. The last type of definition treats business model as a tool to create sustainable competitive advantage. Osterwalder and Pigneur (2010) not only define the business model phenomena, but also name nine blocks which create business model. They include customer segment, value proposition, channels, customer relationships, revenue stream, key resources, key activities, key partners, cost structure. A big advantage of this concept is highlighting connection between key resources in the company.

After analysing 30 definitions of business model, Morris et al. (2005) identified three kinds of business model definitions: financial, operational and strategic. Each of the three types is associated with a different area of decision taken in companies. Financial definitions define a business model as an economic model, showing how the company generates profits. In operational definitions, the emphasis is on the internal processes that enable the company to create values and decisions related to the architecture and configuration of these processes. Strategic definitions indicate aspects related to the company’s positioning, cooperation with other entities and

opportunities for its development. According to Morris et al. (2005), a business model should lead to the creation of a sustainable competitive advantage of a company on a given market and take into account decision variables relating to each of the three aspects mentioned: strategic, operational and financial.

In the literature, one can find not only plenty of definitions describing what should be understood by business model, but also its many classifications. Baden-Fuller and Morgan (2010) introduced generic approach, which distinguishes four types of business model: scale models, role models, scientific models and success recipe models. Scale models accurately reproduce the objects represented, which work analogously to the original, but on a smaller scale. Role models play the role of the “original” in specific business. They emphasize the sense and idea of functioning of a given object or its location. Scientific models help to analyse similarities and differences in characteristics of the examined object. They provide the opportunity to identify, analyse and solve problems, forecast future events and reconstruct relationships between components of the business model. Success recipe models show how to run a business, its principles and the necessary components to perform tasks.

Osterwalder and Pigneur (2010) distinguished five general types of business models: unbundling, long tail, multi-sided platforms, “free” concept and open business models. Unbundling business models are divided into separate but complementary models relating to infrastructure management, creation of product innovations and shaping relationships with customers. Long tail ones are a new or additional value proposition targeted at a large number of niche customer segments that collectively generate significant profit, although serving only one of them would not be profitable. Multi-sided platforms are providing existing customers with a value proposition “providing access”. In the free business model at least one substantial customer segment is able to continuously benefit from a free-of-charge offer. Different patterns make the free offer possible. Non-paying customers are financed by another part of the business model or by another customer segment.

Finally, open business models help to obtain the results of research and development works from external sources.

Moreover, the authors (Osterwalder & Pigneur, 2010) proposed the scheme, that is commonly used in defining the way in which an organization may operate on the market (Figure 1.1).

The Customer Segments Building Block defines different groups of people or organizations an enterprise aims to reach and serve (Osterwalder & Pigneur, 2010). The Value Propositions Building Block describes the bundle of goods and services that create value for a specific Customer Segment. This part of business model gives opportunity to develop sustainable attitude towards customers. The Channels Building Block describes the way in which a company communicates

with, and reaches its Customer Segments to deliver a Value Proposition. The Customer Relationships Building Block describes the types of relationships a company establishes with specific Customer Segments.

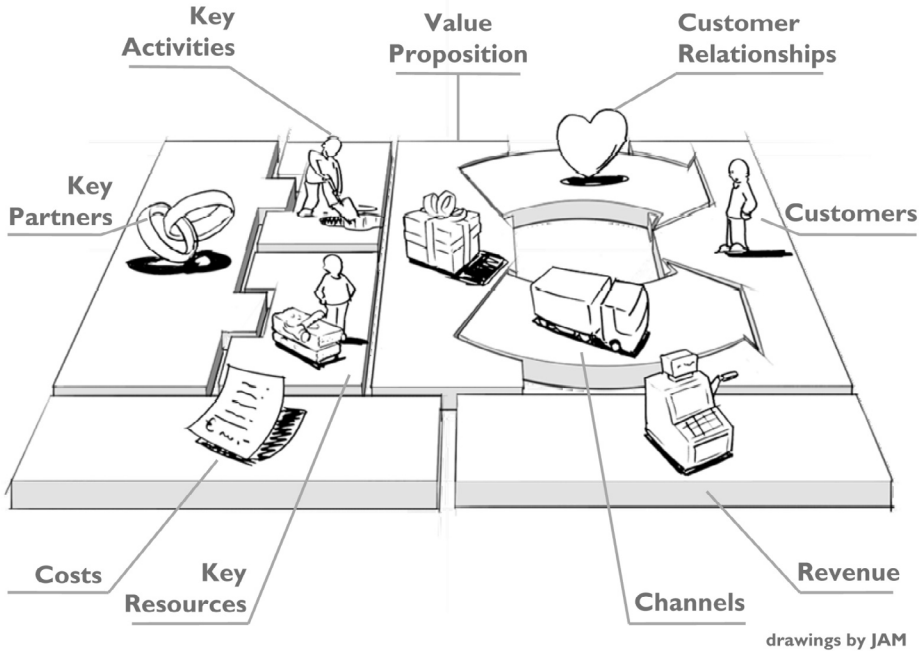


Figure 1.1. Canvas model scheme

Source: (Osterwalder & Pigneur, 2010, p. 40).

The Revenue Streams Building Block represents the cash a company generates from each Customer Segment (costs must be subtracted from revenues to create earnings). The Key Resources Building Block describes the most important assets required to make a business model work. The Key Activities Building Block describes the most important things a company must do to make its business model work. The Key Partnerships Building Block describes the network of suppliers and partners that make the business model work. The last building block, related to the Cost Structure, describes all costs incurred to operate a business model.

Although business model is clearly linked to strategy, the two concepts have some differences. Strategy research has traditionally placed emphasis on competition, value capture and competitive advantage, whereas business model studies focus more on cooperation, partnerships and joint value creation (Magretta, 2002; Mansfield & Fourie, 2004; Seppänen & Mäkinen, 2007).

1.3. Business models in gaming industry

Gaming industry is treated as cultural and creative one. Cultural and creative industries (henceforth CCIs) are defined as “those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property” (DMCS UK, 2001, p. 4). These industries are increasingly acknowledged as crucial to both social and economic development (Henry, 2007; KEA European Affairs, 2008; UNCTAD, 2008) and have attracted the growing interest of management scholars due to their idiosyncratic characteristics, which determine specific challenges to their management and their ability to compete (Peltoniemi, 2015).

Cultural and creative firms use multiple business models to serve different markets segments, sell different products, engage with multi-sided markets, or use different business models over time (Landoni et al., 2020). CCIs are not only a significant engine of economic growth, job creation, and social cohesion (Pratt & Jeffcutt, 2009), but also a peculiar setting characterized by new business models and able to stimulate innovation and entrepreneurship in other sectors of economy (Lampel & Germain, 2016; Messeni Petruzzelli & Savino, 2015).

Figure 1.2 shows the evolution of the video-game industry business model ecosystem based on their most recent common ancestor. The figure also depicts the evolution of characters over time. Business models are grouped together into two broad categories or families: 1) the Platform Manufacturing and Publishing, and 2) Video-game Developing. The relations among these archetypes were examined, and the focus was put on the analysis through the prism of two-sided market economics, as part of the networking literature that focuses on the intermediaries of the market (Rysman, 2009).

The business model archetypes (or species), related to video game industry, under the general name of *Electronics Manufacturing* could be grouped into two broad categories or families, i.e., the Platform Manufacturing and Publishing, and Video-game Developing, and then divided into 10 types: 1) Arcade games manufacturing, 2) Console manufacturing, 3) Console manufacturing-sales-at-a-loss, 4) Publishing, 5) Freemium-game publishing, 6) Independent game-developing, 7) Third-party game-developing, 8) In-house game-developing, 9) Second-party game-developing, and 10) Crowd-funded game-developing (Goumagias et al., 2014).

Arcade games manufacturing business model is focused on manufacturing platforms dedicated to a single game. The enterprises characterized by this business model were combining characteristics of both publishing and manufacturing in an all-in-one approach. The key partners were entertainment hubs and public houses which were the main target group of coin-operated machines similar to pinballs. Due to the increased manufacturing costs and the technological limitation, vertical disintegration was impossible during the early days of the industry (Johns, 2006).

The vertical disintegration of this family of business models set the foundations of the video-game market transformation into a two-sided one.

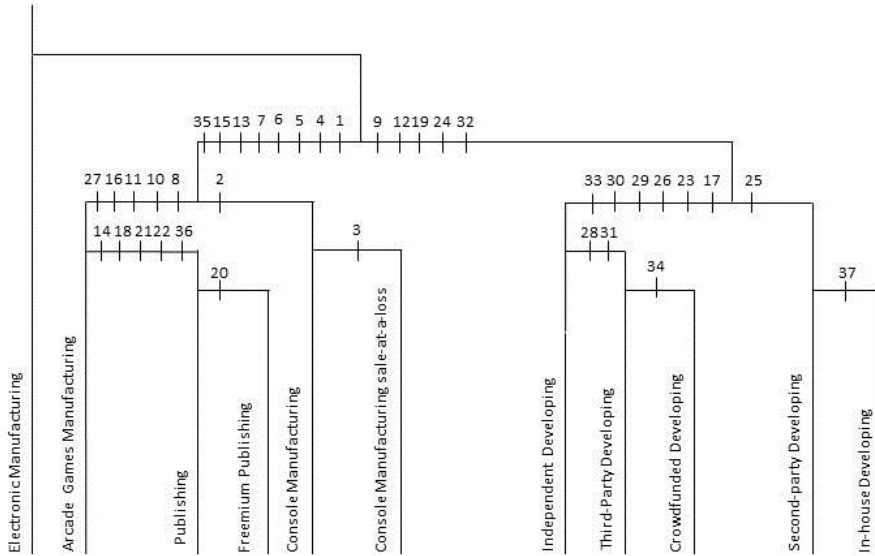


Figure 1.2. The Video-game Industry Cladogram: Business model archetypes are grouped together based on their most recent ancestor. Numbers represent the characters that have been inherited or developed through the evolutionary process.

Source: (Goumagias et al., 2014, p. 290).

Console manufacturing business model, with the advent of new technological advances that allowed for lower manufacturing costs of the new platforms, no longer dedicated to a single game, were produced. Console manufacturing business model is focused on maximizing the console sales, which is supported by games developed specifically for a given platform preventing cross-platform compatibility.

This interdependence between publishing hit-driven titles and player-base maximization was responsible for another business model (*sale-at-a-loss*), also known as *razor-blade*, which effectively entails that console manufacturing business model focuses on market infiltration maximization instead of profits (Hagiu & Lee, 2011; Evans, Hagiu & Schmalensee, 2006).

To achieve that, the business model needs to establish networks (Johns, 2006) with another business model, namely *publishing*, operating in a form of two-sided market (Rysman, 2009). It is safe to argue at this point that multi-sided markets determined the emergence of a symbiotic relationship between more than one business models (Sabatier, Mangematin, & Rouselle, 2010). This business model archetype acts as the intermediary between publishing/developing business models on the one hand and customers on the other.

The *publishing* business model is focused on revenue and profit maximization through video-game sales (physically or digitally), following a risk-averse strategy (Johns, 2006) that skews the publishing decision making heavily towards hit-driven titles. The apomorphic event took place when the business model discarded the manufacturing character and focused instead on monetisation strategies of physical and digital copies of video games (Haddon, 1999). This business model acts as the major revenue source and financially supports the console manufacturing business models in a symbiotic relationship, and the major source of funding for the Video-game developing business models. Consequently, intellectual property (IP) acquisition and creation, internally via *in-house development*, is very important for the sustainability of this business model (Johns, 2006). A specific aspect of two-sided market, which publishers currently operate in, led many publishers to follow a price-discrimination strategy, usually called *Freemium* business model (Rysman, 2009).

Video-game developing family of business models focuses on the development of original or licensed titles creating new video games for all platforms. The group consists of *Independent developing*, *Crowdfunded developing*, *Third-party developing*, *Second-party developing* and *In-house developing* business models. Their evolutionary trajectory is heavily affected by the relationship they develop against publishing business models which act as their major partners for financing and revenue streams. The major goal is survivability maximisation through production costs minimisation. To overcome these challenges, developing business models focus on the production process and key resources when it comes to business model innovation. Independent developing operates usually under the radar (Haelfiger, Jäger, & von Krogh, 2010). They employ digital distribution channels to directly sell the products to consumers, or via online markets (GoG, Steam, etc.). *Third-party developing* business models are focused on creating original titles or entering a contract with a publisher. The challenges that developing-studios face during project financing has led to the emergence of a new business model, namely *crowdfunded-developing*, which aims to attract funding directly from customers. This has initiated a series of domino effects on the production and monetization process of the games and is heavily based on the loyalty of the customer base, which is placed at the centre of production process for feedback and word-of-mouth marketing strategy.

Economies of scale usually lead *Publishing* and *developing* business models to merge or acquire competitors (Johns, 2006). *Second-party developing* business models are focused on engaging in dedicated contracts with a single publisher who acts as the financier of the project, and the final customer. The studios operating under this business model rarely enjoy production independence and are focused on a hit-driven development strategy.

Finally, *in-house development* studios are effectively owned by publishers in a strategically driven strategy to fuel IP creation, but usually they operate in a relatively more autonomous way.

Business model as an innovation is based on the way in which product could be capitalised and all the resources used to generate profit. Cultural and creative industries base on four features, that influence their profits (Landoni et al., 2020). First, it emerges the renowned tension between artistic ambition and financial gain, where in many cases the conflict is internal as many artists prefer wide distribution to profit. Second, the unique management tensions are also linked to the need to grant considerable autonomy to the creatives for the creation of new products, while at the same time preserving a clear strategic orientation of the company. Third, CCFs face significant resource constraints, as they have to manage creative processes, production processes and complex value chain relationships. Fourth, the highly symbolic content of the cultural and creative products creates other idiosyncratic difficulties and tensions: the features and characteristics of traditional goods and services can be easily demonstrated and evaluated by customers prior to sale, whereas cultural and creative products are typically experience or credence goods. The above-mentioned challenges tend to be also exacerbated by the so-called digital transformation, which is significantly reshaping the boundary of competition. These challenges were smartly undertaken by Polish game producer CD Projekt Red.

1.4. Implementing business models in gaming industry—the case of *The Witcher* series by CD Projekt Red

CD Projekt Red is a game development studio founded in 2002. Videogames, a dynamically growing branch of digital entertainment, are its main area of activity. The firm creates cutting-edge innovative entertainment and, thanks to its proprietary distribution platform, it provides gamers from around the world with access to a vast pool of releases, free of cumbersome DRM restrictions.

In order to maintain trust and acclaim among gamers CD Projekt Red pursues a diligent, open and honest communication policy, which results in sustainable products. They earn the respect of our customers through devotion and continuous personal engagement—in their private lives the owners and their employees consume electronic entertainment in the same way as those who play their games. It develops and publishes video games for personal computers and video game consoles. The studio's flagship titles include *The Witcher series of games*, *Thronebreaker: The Witcher Tales*, *GWENT: The Witcher Card Game* and the futuristic AAA role-playing game—*Cyberpunk 2077*. The enterprise business rests upon a strong dual foundation: development of videogames, carried out by CD Projekt Red, and global digital distribution, which is the domain of GOG.com. Until the end of June 2019, over 50 million copies of *The Witcher*, *The Witcher 2: Assassins*

of *Kings* and *The Witcher 3: Wild Hunt* were sold worldwide. Until the end of 2020 the firm sold more than 50 000 000 copies of *The Witcher* games, achieved over 250 GOTY awards for *The Witcher 3* and over 800 awards for *The Witcher 3* (Figure 1.3).

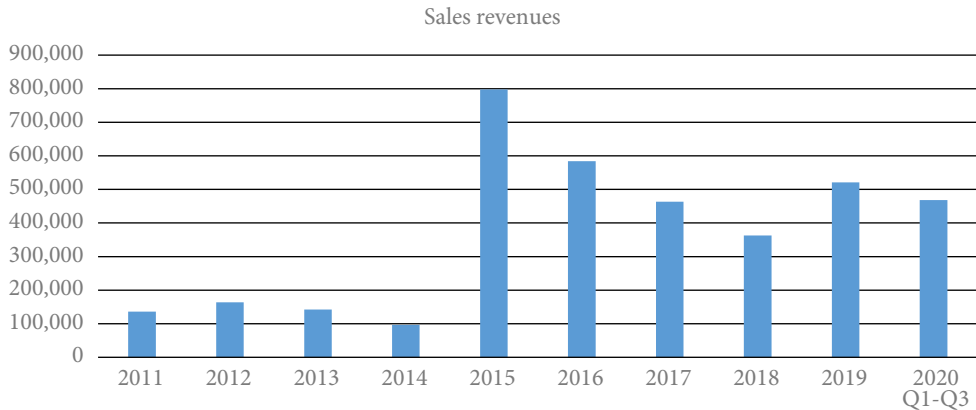


Figure 1.3. CD Projekt Red annual revenues (in thousand PLN)

Source: Own elaboration based on file taken from (CDPR, 2020).

The business philosophy of the CD PROJEKT Capital Group rests upon two pillars: uncompromising dedication to quality in the videogame and service development process, and retention of financial and creative independence. The Board regards these factors as decisive in ensuring success on the competitive global digital entertainment market.

CD Projekt Red stands apart from other major videogame developers and publishers as it emphasizes control over every stage of the game development and marketing process—from initial design, through work on technological solutions, publishing activities, promotion and distribution, all the way to community relations. This model is implemented by operating a proprietary digital distribution and online gaming platform—a part of a broad user-friendly and player-centric ecosystem (Figure 1.4).

As already mentioned, the studio's flagship title is *The Witcher* trilogy set in Andrzej Sapkowski's fantasy world. The Studio's most popular videogame—*The Witcher 3: Wild Hunt*—debuted on 19 May 2015. The game is not just a regular game, but also a sustainable product, especially in content and the way in which the firm is building the relationships with customers.

The success and endurance of *The Witcher 3* may be boiled down to a single sentence from Polygon's original review: "*The Witcher 3* makes what should have been a terrifying risk look like the most natural evolution in the world" (Gies, 2015).



Figure 1.4. Videogame development business model at CD Projekt Red

Source: <https://www.cdprojekt.com/en/capital-group/business-model/>

As a reaction of many players from previous *The Witcher* versions, the main goal of *The Witcher 3* was to combine the design philosophy of previous *Witcher* games, which was to create a complex and mature story that has choices and consequences, with an open world” (Maher, 2020). The firm decided to create open-world game, which is often seen as a trade-off, where the price of all that freedom is the tight storytelling from more linear games. This was a fallacy that *The Witcher 3*’s developers would try to put to rest by using the series’ non-open-world roots to rework the entire open-world formula. The game holds up, five years later (Maher, 2020), so it seems like they did a pretty good job.

In order to populate these open-world environments with the narrative strength of a more restricted area—like what you’d find in the first two *Witcher* game CD Projekt Red had to think outside the box. Or perhaps it is more accurate to say the designers had to go back *inside* the box, and draw inspiration from the small but hard-hitting stories they were already known and respected for (Maher, 2020). What is unique, quests, which are usually linear in other games, could take you across the map, and can be completed in whatever order you want, across tens, if not hundreds, of hours. However, they still tie into each other, and even themselves, depend on where the player entered them. The team saw its inability to control the player as a strength, not a weakness, and leaned into it. What is important, every quest or event in the game is supported by stylish music, composed by Marcin Przybyłowicz, Mikołaj Stroiński and Percival group, and realistic nature typical for Central Europe, giving a Slavic touch in fantasy world, which is rather rare in current popculture. This kind of novelty in gaming industry could be treated as product performance type of innovation, which gives superior offering that dominates market share or earn a substantial premium.

Previously the all-time highest concurrent player count for *The Witcher 3* came at launch, on May 19, 2015. That is when SteamCharts says some 92,268 players logged in. As of publication, the new all-time high is 94,601, which was set within the last two days of December 2019. The role-playing game has also cracked Steam’s top 10, coming in as the eighth most-played game (Hall, 2019) at the time of publication.

Other titles in *The Witcher* series are also seeing a bump. *The Witcher: Enhanced Edition*, the 2008 revision of the original game in the series, also cracked the top 100 most-played games on Steam according to SteamCharts. It is also at an all-time concurrent peak player count, with 12386 players in December 2019 and 12627 in January 2020 (SC, 2020), which was fuelled by the popularity of Netflix’s *The Witcher* series (Nelson, 2019) starring Henry Cavill (*Man of Steel*, *Justice League*). The spike in players also coincides with Steam’s winter sale, which has *The Witcher 3: Wild Hunt — Game of the Year Edition* marked down to USD 14.99 (SSP, 2019). Full price was normally USD 49.99. Using the uniqueness of Sapkowski’s world and the game structure in Netflix series could be treated as storytelling strategy, increasing the customer engagement, which is described in another chapter of the book.

The price policy is the way, in which CD Projekt Red builds the relationships with customers. What is innovative, is that the firm’s representatives prefer to organize revenue streams by single purchase, rather than variety of streams based on freemium business model, micropayments or other diversified sources of turnover, observed in competitor’s offers. What is more, when building good relationships with customers, as in *The Witcher* games, players are often asked to make plenty of tough choices on their journey (Savage, 2018). Local disputes rarely have a clear-cut answer, and the

people who wrong you, often have what is—in their minds—a good reason. You are often under pressure to do the wrong thing for the right reasons, but even doing the right thing rarely leads to a happy outcome, at least in terms of the story you are being told. The story is captivating. What is more, Sapkowski created the story based on strong men, like Geralt of Rivia, and strong women, like Ciri or Yennefer of Vengerberg, that is why many players can find themselves in proposed characters.

These are the reasons why the game is so successful and the key blocks of business model became the pattern of open-world games for single players (Table 1.1).

Table 1.1. CD Projekt Red business model for the *Witcher 3: Wild Hunt*

| Business model block | Description |
|------------------------|--|
| Customer segment | Gamers playing on platforms Win, PS4, Xbox One |
| Value proposition | Open world, Slavic culture with enormous nature and music, strong men and women characters, non-linear quests, no compromise for quality and details |
| Channels | Microsoft XBOX; Sony Interactive Entertainment; Spike Chunsoft Co., Ltd.; GOG; Valve; Cenega S.A.; Bandai Namco Entertainment; Warner Bros. Interactive Entertainment and others |
| Customer relationships | Relatively low price for high quality, The game was organized with some customers' advice coming from the experience of previous parts, any decision is important and can change the played scenario completely |
| Revenue stream | Single purchase, premiere day's sales covered the costs of production and promotion |
| Key resources | Sapkowski's books, Percival music, money invested |
| Key activities | Production based on previous game edition, enriched with motion capture technology, artificial intelligence of Geralt's opponents and open world solutions; promotion started in 2013 on Microsoft conference during E3 Fair Trade, based mainly on word-of-mouth (virus marketing) and PR |
| Key partners | CD Projekt Red; Spike Chunsoft Co., Ltd.; Microsoft XBOX; Sony Interactive Entertainment |
| Cost structure | Costs of production (lasted 3,5 years)—32 mln USD, Promotion—35 mln USD |

Source: Own elaboration based on (Lewicki, 2020; Ostrowski, 2015).

The Witcher 3: Wild Hunt by CD Projekt Red was released on May 19, 2015, almost four years after *The Witcher 2* had first hit PC. By the end of summer, it had sold more than six million copies across PC and consoles. That was only a little surprising, because *The Witcher 3* is an incredible game—it was good enough, and big enough, to lure in players who had never touched the series before. The case of the game covers three types of innovations, i.e., business model, product performance as well as customer engagement, and is an example of multidimensional innovation process. The same business model was proposed to the most wanted game during Covid-19, which is *Cyberpunk 77*. But the game is not as successful as *The Witcher 3* was. But it is quite a different story.

Questions / tasks

1. Do you think this profit innovation based on price reduction in comparison to main competitors was necessary? Where do you see the main innovations?
2. Can you describe the process of innovation? Steps taken, results gained.
3. Where do you see other potential innovation possibilities for CD Projekt Red?
4. “Was it a radical innovation or an incremental innovation?” Discuss your opinion.
5. Was it sustaining or disruptive innovation? Discuss your opinion.

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NETWORK AS AN INNOVATION: SOCIAL INNOVATION— THE CASE OF THE HOSPITAL HELP INITIATIVE DURING COVID-19 PANDEMIC



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Abstract: In the chapter, the network innovation is defined in two ways: as networking innovation model and as networking that is the result of innovation. Strategic entities in building relationships for these two approaches are described. Particular emphasis is put on analysis of social innovation process, including six stages, i.e., inspiration, proposition, prototypes, testing, scaling and system change. This process was implemented by Poznań University of Economics and Business Knowledge Transfer Company LTD, while creating The Hospital Help Initiative (WsparcieDlaSzpitala.pl) during Covid-19 pandemic. The aim of the chapter is to diagnose network innovations on the basis of The Hospital Help Initiative (WsparcieDlaSzpitala.pl) coordinated by Poznań University of Economics and Business Knowledge Transfer Company LTD. The case study method was used to show how social needs appeared, how adequate solution was smartly developed by a group of professionals, how the Relationship Team successfully adopted the technology, and finally how the organization model was tested and scaled. This kind of network innovation may stimulate system change in the future.

Keywords: network innovation, relations in network economy, social innovation, The Hospital Help Initiative.

2.1. Introduction

Network and innovation could be related in at least two ways. In the first, innovation could be created and implemented as the result of networking (networking innovation model), in the second, networking could be the result of innovation. However, these two approaches interpenetrate each other, especially in building relationships among the entities involved. The same entities could support the innovation process in an organization, and may support building relationships within network.

Network as an innovation is based on configuration, which focuses on innermost workings of an enterprise and its business system (Keeley, Walters, Pikkell, & Quinn, 2013). The company cooperates in the network with other firms or surprising collaborators to develop new offerings that drive a shift from business as usual. These innovations mean that a firm can capitalize on its own strengths while harnessing the capabilities and assets of others. Network innovations also help executives to share risk in developing new offers and ventures. These collaborations can be brief or enduring, and they can be formed between close allies or even staunch competitors, which gives a new perspective on competitiveness. The main means of building a network include alliances, collaboration, franchising, open innovations, secondary markets and mergers or acquisitions. The aim of the chapter is to diagnose network innovations on the basis of The Hospital Help Initiative (WsparcieDlaSzpitala.pl) coordinated by Poznań University of Economics and Business Knowledge Transfer Company LTD.

2.2. Entities and their relationships in the networks

The idea of networking innovation model relates to the second Schumpeter's mark (hypothesis), which focuses on supporting the innovation processes in small and medium enterprises, because the big ones are developed enough to conduct their own R&D efforts. Innovations are no longer "just" seen as a process, involving various functions. The process is explained rather by the participation of a number of different institutions. Here cooperating companies (including suppliers) and customers with varying degrees of intensity are involved continuously in the various phases of the overall activity, while public R&D facilities and (business) external R&D facilities are included only at certain stages in the innovation process (Figure 2.1).

In the course of the development of new technologies and knowledge, companies become increasingly dependent on external knowledge and external technology; this knowledge and technologies can be either publicly accessible or be privately owned by other companies, individuals or research institutions. Furthermore, external knowledge and external technologies are available either in a codified or personal, and published or undisclosed form.

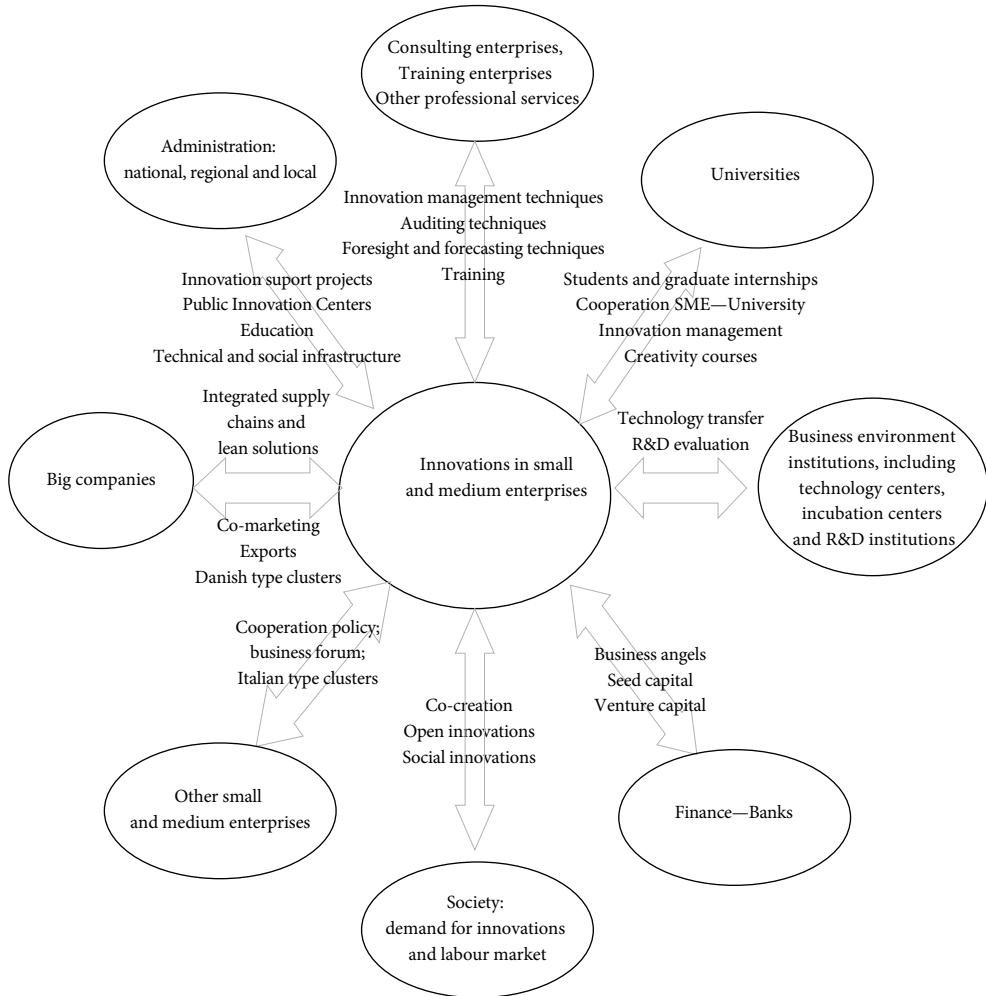


Figure 2.1. Relations in network economy

Source: Own elaboration based on (Koschatzky, Kulicke, & Zenker, 2001, p. 247).

Research and development service providers together with public and private research institutions and, increasingly, training institutions contribute much to building, development and diffusion of existing, publicly available “knowledge and technology pools”. The role of universities as employer and educator of highly skilled workers and researchers especially for R&D needs further consideration (Guerrero, Urbano, & Herrera, 2019). These institutions also provide a partner and/or service provider for external innovation-related activities (especially R&D activities). The company’s internal R&D activities—as part of the innovation process—are available in the company knowledge and existing technologies prerequisite for the

implementation of in-house innovation activities, but also a prerequisite for the use of external sources for innovation. This kind of attitude is described in literature within Triple Helix Model (Etzkowitz & Leydesdorff, 1995, pp. 14–19) and all the derivate ones.

The sustainability-oriented innovation intermediaries that can be defined as “organizations that assist firms in the eco-innovation process by providing external impulse, motivation, advice and other specific support often by acting as an agent or broker between two or more parties” (Kanda, Clausen, Hjelm, & Bienkowska, 2015, p. 3) are interesting entities in the network. The systematic literature review revealed several pathways by which innovation intermediaries can encourage sustainability. Above all, Kilelu, Klerkx, Leeuwis, and Hall (2011) and Hannon, Skea, and Rhodes (2014) identified a set of key functions of energy innovation intermediaries in the United Kingdom. The functions included demand articulation (scanning for information/opportunities, foresight through strategic planning, diagnosis through needs/knowledge gap assessment), network building (gate keeping through filtering/selecting collaborators, match making through forming partnerships/market connections), capacity building (organizational development through incubation/support services, training and competence building through management/technical skills/certifications), innovation process management (mediating and arbitrating), knowledge brokering (matching knowledge demand and supply), and institutional support (boundary work between science and practice, institutional change through advocacy, regulation change, and attitudes/practices change). In the context of sustainability-oriented innovation intermediaries, one or more actors within the intermediary would focus on incorporating sustainability principles into these functions in order to encourage and support the creation of businesses and technologies that can act as niche experiments and/or change the regime subsystems (Romanowski & Gнусowski, 2019).

The impact of collaborative relationship extends to the innovation context (Shin, Park & Park, 2019). To create value through sustainable innovation, identification of business models and clear understanding of an innovation network is required (Boons & Lüdeke-Freund, 2013). An innovation network is composed of various innovation actors who are either direct or indirect participant of business model. A sustainable innovation market is dependent on the interaction among these participants, and scholars emphasized the need of collaboration-based partnership activities for a successful marketing of sustainable innovation (Boons & Lüdeke-Freund, 2013; Doganova & Eyquem-Renault, 2009).

For example, Lin, Tan, and Geng (2013) noted that that sustainable product innovation decisions should strategically incorporate collective knowledge about market demand characteristics. A high level of market demand knowledge can provide specific research and development (R&D) quality, which leads to distinct

innovation and, ultimately, higher firm performance. Similarly, Kushwaha, and Sharma (2016) emphasized the need for a green supply chain management initiative as it can bolster higher firm performance in the long run. For a connected network to collectively achieve environmental compliance and improve firm performance, a clear understanding of the orientation and depth of partnership is required. These kinds of relationships are necessary to implement social innovation.

2.3. Process of social innovation

Social innovation is not defined univocally, however in this chapter SI will be treated as “change in social relations, involving new ways of doing, organizing, knowing and framing” (Haxeltine et al., 2016). The problems discussed within the subject of social innovations focus on four issues: 1) related to defining social innovations as a list of activities for social problems, 2) related to introducing new solutions in solving social problems, 3) related to the lack of an organizational model for non-profit and NGOs (in the case of enterprises we would talk about a business model), and 4) the benefits of introducing innovative solutions in the social sphere, with particular emphasis on long-term results, also known as impacts, or impacts, which are a systemic change caused by successfully implemented social innovation (Lawrence, Dover, & Gallagher, 2015).

The process of developing social innovations, hereinafter referred to as the process of social innovations, is similar to the assumptions of modern innovation processes. It includes six steps: inspiration, proposition, prototypes, testing, scaling and system change (Figure 2.2).

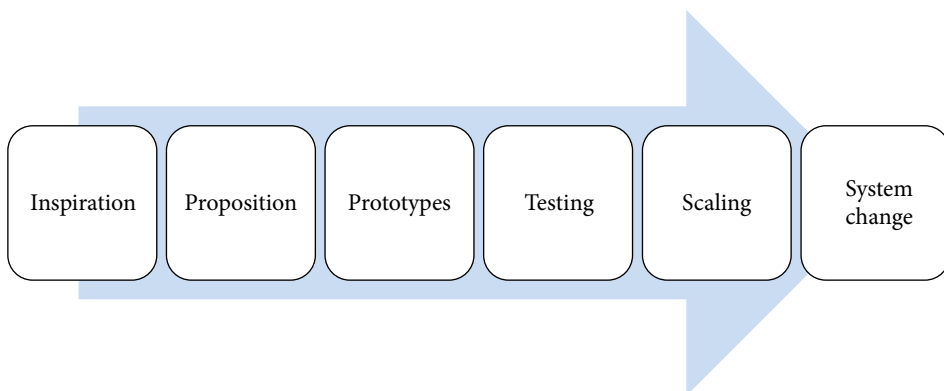


Figure 2.2. Social innovation process

Source: Own elaboration based on (Murray, Caulier-Grice, & Mulgan, 2010).

The first stage, “inspiration”, is related to social needs, but also to broadly understood social problems. The source of inspiration can be unexpected changes such as catastrophes and natural disasters, pandemic, wars and economic crises. Other sources of new inspiration include environmental pollution, over-exploitation of natural resources and demographic changes such as aging of the society, epidemics and poverty, or combating religious, racial and gender intolerance and inequality. The second stage, “propositions”, is the multiplication of ideas about how to deal with the identified social problem. Ideas can come from many sources, including citizens and consumers of services, the local community, employees of organizations and members of community organizations. The generation of ideas takes place using innovative methods, such as: brainstorming, the Delphi method, the opinions of experts or derived from studying “best practices”.

The third stage “prototypes” is where ideas are tested and assessed during their implementation in pilot projects. As a result, feedback is obtained as to their purposefulness and usefulness, and to what extent they can be accepted by future users. It should be remembered that every idea, even a sensational one, is developed with use of the “trial and error” principle. The fourth phase, “testing”, focuses on developed and tested ideas that have passed successfully completed pilot projects (Romanowski, 2019). It happens that some of the ideas seem interesting to fade over time and become unprofitable. Hence, it is advisable to use the methods of innovation evaluation. Innovative ideas that have successfully passed the prototyping stage should be further developed, and related business models should be improved. These models should include financial and legal side of the project in order to ensure the stability of the enterprise or social organization implementing the social innovation.

The fifth step, “scaling”, is the diffusion of innovation among groups and communities interested in change. This is most often done through the development of social organizations and enterprises with socio-economic values. The sixth stage, “system change”, is about putting new ways of thinking and acting into practice. They concern values, strategies, business models, regulations, data and infrastructure, and the creation of new organizations (business, private, civic, non-profit). Systemic changes are social innovations that have contributed to changes in the existing educational, health and information systems and influenced new and better behavior of people.

This procedure was implemented by Poznań University of Economics and Business Knowledge Transfer Company LTD while creating The Hospital Help Initiative (WsparcieDlaSzpitala.pl). A social innovation was stimulated by Covid-19 pandemic and fast actions were needed to support healthcare system in Poland in 2020.

2.4. Case study: the hospital help initiative (WsparcieDlaSzpitala.pl)

2.4.1. The emergence of a pandemic and the problem of uncoordinated help

During the first wave of the Covid-19 in Poland, in March 2020, there were significant deficiencies in the provision of personal protective equipment and food products to Polish hospitals. From day one, the assistance from citizens and enterprises was broad but uncoordinated and chaotic. There was no two-way communication about the real needs and no secure solutions for providing support to hospitals.

The widespread willingness to support hospitals fighting the pandemic, by purchasing and delivering missing products, was a very positive social phenomenon. Unfortunately, private individuals calling hospitals with questions about current needs disrupted the work of medical staff. Moreover, the self-delivery of products to the hospital posed the risk of a rapid and uncontrolled spread of the pandemic.

A group of scientists from the Poznań University of Economics and Business was also involved in helping hospitals. In the first week of the pandemic, they experienced problems caused by a lack of coordination of activities. The team's workshop discussion on March 13th 2020, led to a decision to start work on an IT system that would transform uncoordinated, chaotic help provided to hospitals by residents and companies into an effective social support system for health care. The architecture of the future system was yet to be defined.

2.4.2. Dynamic development of the IT system thanks to the cooperation and... luck

The opportunity for scientists to establish valuable cooperation appeared a day later. On March 14th 2020, the owner of the IT company Clorce from Poznań published a post on Facebook that he was ready to finance his programmers' work in creating a solution that would help in the fight against the pandemic. On the same day, both teams remotely connected to discuss the system's possibilities of organizing bottom-up aid. Time was critical. If it was to fulfill its role, the system had to be built as quickly as possible.

While creating the future system's assumptions, a team of scientists and programmers determined that its crucial functionality must help hospitals report their needs, donors to declare their help, and coordinators to collect and deliver. This way, the public support would be more accurate and consistent with hospital needs. However, the time needed to build a system from scratch was still the problem.

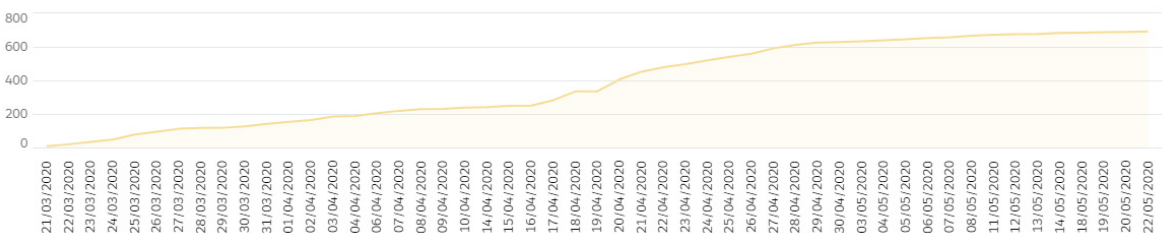
On March 16th 2020, a key message for the project appeared on the Salesforce website. As part of the “No Cost COVID-19 Care Response Solution”, the company declared it would provide free access to technology for care management teams responding to the coronavirus pandemic. The pool of free licenses, worth EUR 1 mln per month, was obtained in just two days thanks to the direct contact between the university rector and the company’s vice president. The possibility of using the Salesforce architecture significantly accelerated the work of programmers. A working version of the system was launched on March 20th 2020, after five days and nights of continuous coding by a team of 12 programmers.

2.4.3. The role of the Relationship Team in a successful technology adoption

Working on creating a system to organize bottom-up aid was part of the task. Equally important was the acquisition and training of future system users—hospitals, coordinators, and donors. In this regard, 15 socially engaged volunteers who, together with a team of 8 scientists, contacted medical institutions and searched for local coordinators, became invaluable help.

The nature of the work of team members varied depending on the target group. The task of the people taking care of hospitals was to convince the facility to use the platform and teach the procedures for entering the needs into the system and marking the delivered products. The task of those taking care of coordinators was to find people who could take care of a given hospital by organizing collections and delivering the necessary products, which required specific personal skills and predispositions.

The pace of acquiring hospitals into the system was swift. Within 21 days from launching the system, 244 hospitals used it (25% of all hospitals in Poland). In the peak weeks of May, 397 hospitals and 297 nursing homes were in the system.

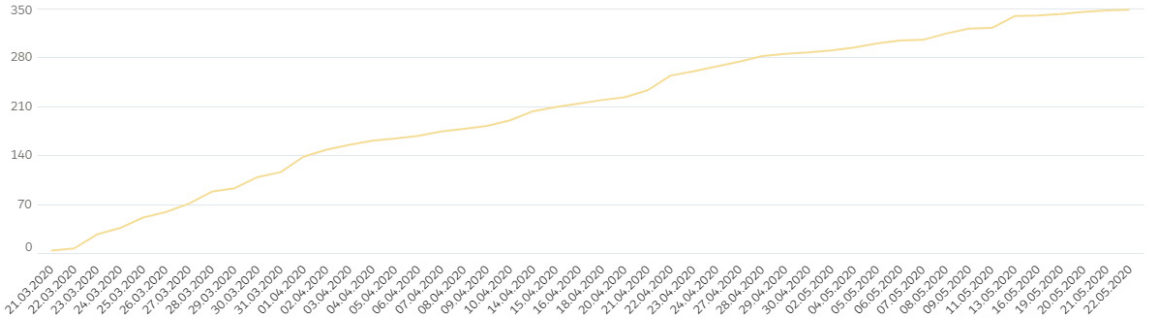


* verified, registered and trained

Figure 2.3. Increase in the number of health care facilities in the system*

Source: Own elaboration.

The dynamic of registering local coordinators in the system was similar, although their verification and training took longer than that of hospitals. Twenty-one days after the system launch, 201 local coordinators were registered. By the end of May, this number had risen to 357 people from all over Poland.



* verified, registered and trained

Figure 2.4. Increase in the number of local coordinators in the system*

Source: Own elaboration.

Local coordinators were crucial for the WsparcieDlaSzpitala.pl system. They are responsible for organizing collections and ongoing cooperation with the hospital or nursing home. In larger cities, such as Poznań, Gdańsk, or Bydgoszcz, there were many more of them than hospitals, while in smaller towns, it was challenging to find a person ready to undertake such duty. Relationships Team members often interacted with local NGOs and journalists and then collectively, using social media, encouraged the local community to take on this role.

2.4.4. The way of cooperation with the media in promoting social innovation

Another essential task from day one was to promote the idea of the system in the media. The vast majority of media information on support for hospitals during the pandemic concerned aid actions related to sewing masks or donating meals to medics. The development of the IT system was, for obvious reasons, less attractive for journalists.

Support from companies and institutions was very helpful in promoting the project. Patronage from the Polish Hospital Federation and the Ombudsman and financial support from a group of recognizable companies allowed building the project's credibility. Moreover, media monitoring companies' free provision of services allowed for ongoing tracking of promotional activities' effects.

In the first wave of the pandemic, many aid projects tried to get the media's attention. Journalists expected news with large numbers on the products collected and handed over to hospitals. It was more difficult for an IT system that facilitated helping to get media attention. A group of friendly journalists proved to be very helpful here, understanding the project's idea and contacting journalists from other editorial offices, informing them about the created system and its usefulness. As a result of the active cooperation of a small media team with journalists, from mid-March to mid-May information about the system appeared in 1,393 publications, effectively reaching 7 million recipients.

The graphic tool offered by Tableau Software also became a beneficial tool in popularizing the system. With the support of the company's employees, a team of scientists prepared a set of interactive maps that showed hospitals' needs in real-time. Thanks to this solution, companies and individuals could easily understand the real needs of the health service.

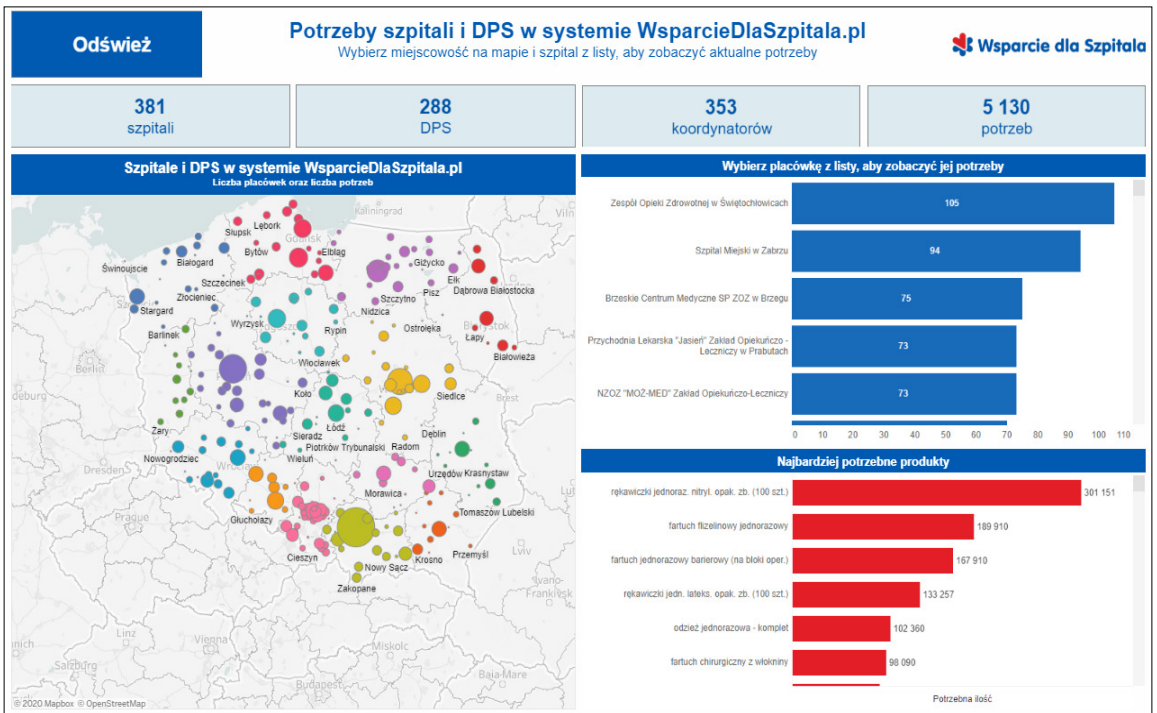


Figure 2.5. Map of hospitals and nursing homes needs by Tableau Software

Source: Own elaboration.

2.4.5. Scaling from *WsparcieDlaSzpitala.pl* in Poland to *Helpmed.in.ua* in Ukraine

The created system played an important role in Poland's first wave of the pandemic, organizing and dynamizing many aid activities. Between May and June 2020, there were signals from Ukraine that they would also need a similar system. The Polish Challenge Fund announced almost at the same time, provided an excellent opportunity for this.

The essence of the 6-month project implemented by the Poznań University of Economics Knowledge Transfer Company and Hi-Tech Office Ukraine was to gather previous experiences, train partners on the Ukrainian side, build a local version of the system and implement selected hospitals and a group of local coordinators, accompanied by a local information campaign.

Twenty hospitals from 5 Ukrainian cities and leading patient organizations joined the project. Based on the local needs analysis, the Ukrainian version of the civic support system was registered and developed. Series of webinars were implemented and executed. Awareness campaign led to interest and engagement of the state institutions (including the Ministry of Health, Ministry of Digital Transformation and the Chief State Sanitary Doctor) and local business.

The experience gained from the two countries proved the legitimacy of creating an advanced platform coordinating bottom-up aid and building an ecosystem of donors, coordinators, and institutions in need of help. Such a combination organizes the helping process and makes it more effective and safer. There is a need to create an open-source solution covering various assistance types (beyond a pandemic situation and hospitals).

The described case study is a good example of social innovation. The New solution responds to current social problem (chaotic situations of deliveries in hospitals during Covid-19 pandemic as an inspiration), is based on current network of experts to create and test the prototype (propositions, prototype and testing), and finally is used in neighbour country for scaling, which leads to system change. In fact, the described study of *The Hospital Help Initiative* covers at least three types of innovations, i.e., network, structure and channel as an innovation, and is an example of multidimensional innovation process.

Questions / tasks

1. What was the significance of the adopted division of work in the team for the project's success?
2. What qualities should the local collection coordinator have?

3. At what moments in the development of the system did the ability to network proved to be critical?
4. Is this innovation easy to scale?
5. How may this kind of innovation stimulate “system change” after Covid-19 pandemic?

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3.

STRUCTURE AS AN INNOVATION



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Abstract: The purpose of the chapter is to present basic theoretical fundamentals in the field of structurally significant formations that companies apply in the process of their business operations, market projections and innovative changes. Organizational forms and structures are presented in the evolutionary context of the time parameter, applying a chronological historical landmark. Knowledge of the variety of possibilities for structural dimensions of the functional manifestations of business activity provides an expanded range of possible solutions. Basic definition formulations are considered. The emphasis is on the organization and organizational structural forms, changes in their practical dimensions in accordance with the changes in purely managerial knowledge and the needs of business practice for innovative changes in various functions in the scope of company's activity. With the help of various creative and purely managerial approaches, through cognitive brainstorming activities, a set of analytical, inductive-deductive, case and simulation methods, students gain new knowledge, practical skills and visionary views on the presented issues—by combining theoretical statements, empirical factology and analytical assignments based on the principle of learning by doing. The topic draws students' attention to the study, selection and construction of internal units and structures, including innovative ones, as part of the necessary business projections for the construction of sustainable processes to generate new value and positive impacts for the environment and stakeholders.

Keywords: innovation structure, organization, organizational structures, structure as an innovation.

3.1. Introduction

In contemporary conditions, successful business processes are planned and organized with a complex time parameter aimed at innovative development. Their organization is characterized by a significant number of interactions and complex causal relationships. The way of constructing the units, consolidating the powers and building the information channels is essential for the combination of resources, activities and staff in spatial and temporal aspect. Their coordinated interaction in the form of different organizational structures makes it possible to achieve the set innovation goals. The study of the organizational aspects of the business process and the business innovation process provides knowledge and creates skills for developing and applying various organizational forms for their implementation and for maintaining effective communications in the enterprise system. The purpose of the chapter is to present basic theoretical fundamentals in the field of structurally significant formations that companies apply in the process of their business operations, market projections and innovative changes.

3.2. Innovation, organization, organizational structures—basic definition aspects

In the innovation development, enterprises take into account two contradictory processes (Petrov, 2008, p. 216):

On the one hand, the innovation process is a complex process—from the origin of the idea to its diffusion development. All stages are closely related and mutually conditioned. To this end, specific systems of structural interactions are planned, organized and maintained. Their main aim is to ensure the sequence of the stages and the continuity of the processes over time.

On the other hand, innovation knowledge is discrete and stochastic. There is no feedback between the emergence of scientific knowledge, its materialization and its market success, which is why the scope of the whole cycle of newly introduced activity within an undertaking is not binding. It depends on the specific situations, potential, innovative and market intentions and other company variables.

The special features of the activity, the size, the resource security and the financial and economic parameters determine to a great extent the form and the way of organizing the innovation process. It covers the set of specific activities performed together in a certain sequence in space and time. Their specificity requires different organization of the development and implementation of innovation.

As the term, the organization can be defined in different ways. For innovation issues, the following definitions may be applied:

- **union** of people and arrangements between them to implement the innovation activities and tasks (Taneva, 2011, p. 215);
- **complex techno-economic and social system** that reflects the specifics of the business innovation process and depends on the nature of the interaction between the different hierarchical levels (Taneva, 2011, p. 216);
- **key management function** that determines how resources are allocated to achieve the strategic goals (Georgiev, Tsvetkov, & Blagoev, 2013, p. 296);
- **set of principles, norms, procedures, techniques and rules** regulating how to combine and use in space and time the resources needed to implement the innovation.

Within the planning, developing and realization of the organization of the business and the business innovation process four axes of tension and opposition are identified (Simons, 2005, pp. 5–15, p. 17):

- **strategy** (structure follows strategy) **against structure** (organizational design influences future strategies);
- **accountability** (current) **against adaptability** (future);
- “**stairs**” (hierarchies) **against “rings”** (networks);
- **personal interest** (of the individual) **against success of the mission** (of the innovation structure, department and enterprise).

The combination of axes or the reduction of tension between pairs of principle statements is difficult because of their heterogeneous character and the opposite direction of change. Managers should prioritize the sequence of their incorporation into the organization of the business and innovation processes.

Depending on the extent to which it is based on prescriptions and is governed by sanctions (incentives), the **organization of the business and innovation processes** can be **formal** or **informal** (see Figure 3.1 and Table 3.1).

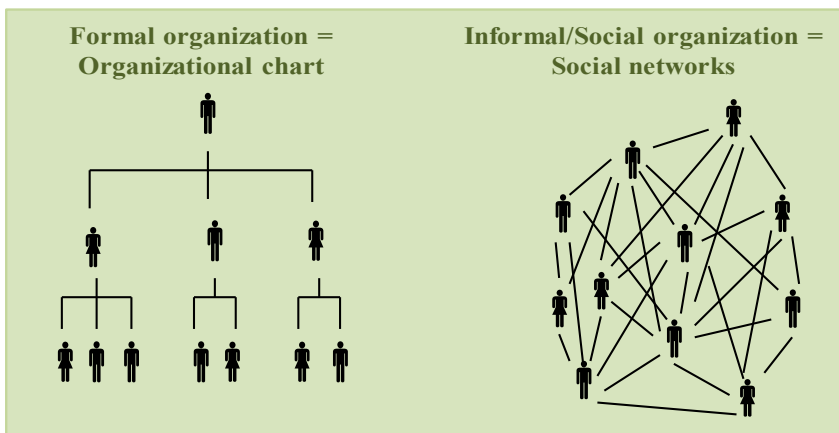


Figure 3.1. Formal and informal organizational structure—model of relationships

Source: (Conway & Steward, 2009, p. 326).

Formal organization is widely used in the company's business and innovation process. Using it, the managers:

- define the roles and responsibilities of innovation staff;
- build the hierarchical structure of power and define the process of making innovative decisions;
- determine the specifics of communication channels and information flows;
- establish the mechanism and scope of the control;
- develop a strategy for coordinating work practices;
- construct the decision-making process;
- define specific features and innovative tasks.

Table 3.1. Comparison between formal and informal organization

| | Characteristic | Formal organization | Informal organization |
|-----------------------------------|--|--|--|
| Structure: | <ul style="list-style-type: none"> – Beginning – Logical basis – Sustainability | <ul style="list-style-type: none"> Prescriptions Rationality Stability | <ul style="list-style-type: none"> Unexpectedness Emotionality Dynamics |
| Impact: | <ul style="list-style-type: none"> – Unit – Type – Movement | <ul style="list-style-type: none"> Position Power From top to bottom | <ul style="list-style-type: none"> Personality Strength Bottom-up |
| Communications: | <ul style="list-style-type: none"> – Channels – Networks | <ul style="list-style-type: none"> Formal Clearly defined movement through formal channels | <ul style="list-style-type: none"> Informal, poorly defined and non-intersecting channels |
| Involvement of individuals | | <ul style="list-style-type: none"> According to the positions and roles defined by the formal ones | <ul style="list-style-type: none"> Only those considered acceptable |
| Base for interaction | | <ul style="list-style-type: none"> Prescribed according to functional obligations | <ul style="list-style-type: none"> Spontaneous and individual characteristics |

Source: (Conway & Steward, 2009, p. 326).

Through this type of organization, **three tasks** are solved:

- formation of the organizational structure defining the composition and place of the innovation units, their provision with resources and the procedures for implementing the innovation activities;
- ensuring the smooth implementation of research, development and deployment with no negative impact on production;
- achieving flexibility and adaptability in line with the degree of complexity and flexibility of the corporate environment.

In distinction from the formal, **informal/social organization**, it has the ability to identify itself through different organizational boundaries—team boundaries, functional boundaries, boundaries of the enterprise itself, the virtual network, etc. This peculiarity is at the heart of the interactive model of the innovation process. With it, new ideas move more easily and quickly to the next innovative stages in an effective filter of inappropriate ideas.

Within the informal organization, individuals participate in four types of networks (Tichy, Tushman, & Fombrun, 1979, pp. 507–519):

- *friendly*—discover relationships based on friendly relations;
- *impact*—represent the power of influence and the structures of power;
- *communication*—focus on the ways of information sharing;
- *economic*—describe patterns of money and commodity exchange.

For clustering networks, Krackhardt & Hanson (1993, p. 111) use slightly different categories. According to them, there are **three types of networks**:

- *networks for informing and counselling* (they bring to the foreground the important players in the organization, i.e., those that the resolution of problems and the provision of technical information depends on);
- *trust networks* (they emphasize the model of sharing delicate and political information and supporting in a crisis situation);
- *communication networks* (for regular communication).

In recent years, interest in informal organization has steadily increased. This is due to the strong subordination of the individuality of the participants in the business and innovation process, the increased aloofness, foreground and demotivation brought about by the bureaucracy of the formal organization, and the inability of the bureaucratic structure to cope with the vague and uncertain environment of innovation development.

To organize the business and innovation process, the enterprise constructs and maintains a particular organizational structure. In general, the **organizational structure** is a *set of regulated sustainable links that ensure the organization's functioning and development as a system*. It includes four types of **elements**:

- *units* (governing bodies, subdivisions, working individuals);
- *relationships/links* (horizontal and vertical);
- *structural levels* (high, medium, low);
- *credentials* (linear, functional, etc.).

The **organizational structure** can be defined as “a set of units located at a different hierarchical level, coordinating the functioning of the business system generally, the management system and the innovation management system in particular; developing and implementing innovative solutions and decisions related to the implementation of the projects and especially innovation projects” (Fatkhutdinov, 2003, p. 131). It must be flexible and fit in the environment. The different types of organizational structure have different potential for opposing the environment. The lack of flexibility in most cases reduces the effectiveness of the innovation management system.

There are **two approaches for building the organizational structure** of the innovative enterprise (mechanistic and organic), which in practice are often applied in a mixed version, with the domination of elements of one or the other approach (Varamezov, 2013, pp. 157–159; Panteleeva, 2013, pp. 175–176).

Mechanistic (hard, bureaucratic) approach has a formal division of labour and narrow specialization. Hierarchical principles and formal rules are strictly observed. Vertical flow of information dominates. Secondary tasks are decomposed into private tasks, which can be performed independently of common tasks. The personal qualities of the innovation staff are not considered to a significant extent in the design of the organizational structure. For enterprises that have adopted a purely mechanistic approach, the dynamics in the environment parameters raises a number of problems. Their solution is lengthy and difficult. For this reason, in the current context, the emphasis is on the application of the second approach.

In the organic (soft) approach, a smaller number of hierarchical levels is constructed. Formal rules and procedures are implemented in an informal relationship environment. Decentralization dominates. The staff is involved in the process of making innovative solutions. They are given greater responsibilities in the implementation of the activities. There is flexibility in management. The main advantages that the enterprise can achieve by adopting the organic approach are identified in three directions: a flexible and dynamic leadership; a flexible mechanism facilitating communications; a targeted priority of technical and innovation development.

Based on the adopted model of organizing the process, the enterprise can choose between five forms of organizing activities (Panteleeva, 2013, pp. 176–177):

- *Functional organization*. The main activities are related to the relevant departments (design, research, production, marketing) and are usually sequential (linear). The downside is that all of these departments are governed by common business objectives, including the R&D unit, although it is quite autonomous.
- *Functional matrix*. A team of specialists from all departments is set up. It is managed by department managers and by the project manager. The functional start dominates the project.
- *Balanced matrix*. It is applied, if necessary, by the functional and the project approach to the development of innovation activity. Part of the innovations is based on the functional start, and others on the project start.
- *Design matrix*. A team of participants from all departments dealing with the problems of the innovation project is being built. This organization is called parallel-integrative.
- *Venture organization*. Team members work exclusively on a project, breaking away from bureaucratic structures.

The degree of involvement of participants in business and innovation activities in different forms is varied. The lowest is in the functional organization, and the highest is in the ventures, where the benefits of it are exacerbated. Based on a number of studies, Jaffee (2001, pp. 284–286) systematized the contemporary

features of the organization of the business and innovation process (which he calls “postmodernist organization”)—virtuality, networks and alliances, flexibility, different job features and risk-taking.

Many economists express the view that the presentation of the organizational structure of the innovation process through an organizational scheme has a number of weaknesses and constraints. On the other hand, it is based on it and combining situations, characteristics, subject and interdisciplinary areas categorize the different types of organizational forms (structures) as—traditional, network, front-back, boundless, learning and self-learning, virtual organization, etc. The use of organizational schemes as a way of visualizing the “skeleton” of the organizational structure will continue in the future, albeit in a form different from our familiar (traditional) structures in the past. This is due to the fact that they allow for quick orientation and the information in them is subordinated to an appropriate and easily understandable graphic form (Conway, & Steward, 2009, pp. 242–244).

The **main advantages of organizational schemes** are described in several ways: they provide transparency and predictability; help quickly and easily understand what should happen in the business and innovation process; present a simplified snapshot of the formal hierarchy in the organizational structure; describe briefly, almost verbally, who is responsible for what and to whom. At the same time, as their **weakness and limitation**, their staticity can be pointed out against the background of continuous changes in the enterprise and its innovation subsystem. Information technologies provide an opportunity to overcome some shortcomings of traditional organizational structures and to achieve flexibility in the scope and content of processes and activities (including virtual presentation in a dynamic way). The complexity of innovation raises the need to expand the circle of participants in the business and innovation process and highlights issues related to strategic alliances, outsourcing and networking.

Achieving effective organization of the business, innovation, business and innovation process, as well as human resources engaged in innovation activities, requires compliance not only with trends and patterns in innovation and organizational science, but also in business in general. It is necessary to find the appropriate balance between the contradictory principles of organizational design at the workplace of the staff of the enterprise, but also the staff engaged in the implementation of innovation processes. Managers should make choices in the following areas (Panteleva, 2013, p. 178):

- open workplace versus closed workplace;
- workplace or social space;
- workplace tailored to the personality or task specificity;
- stability or flexibility and mobility;
- individuality or organizational efficiency of the enterprise.

3.3. Types of organizational structures

3.3.1. Classic organizational structures

Historically, the linear organizational structure first arises. Here, the units and the contractors are subordinated to a manager who manages all activities, including the innovation. The **linear structure** has a number of merits resulting from its simplicity and economy, the full respect of the principle of unity in governance, the high degree of coordination between the various units and the contractors, the ability to react in unexpected situations, At the same time, the principle of unity and lack of functional units leads to the simultaneous implementation of routine and innovative activities (see Figure 3.2).

The intertwining of various activities in a small number of staff is associated with an intensive workload which limits creativity and favours innovation with a lower degree of novelty and complexity. In the current conditions, this structure finds a more limited application—mainly in micro and small enterprises.

Another type of organizational structure is **functional**. The staff is divided into specialized units based on its functional uniformity. The structure is a collection of fully specialized subdivisions, each of which performs a strictly defined part of R&D, according to its profile and specialization. Each unit includes individuals with a homogeneous specialty. The unit manager directly manages the linear structural units from the lower hierarchical levels in the implementation of the innovation-related activities. In practice, the functional structure is seldom used in pure form. It is usually combined with the linear structure (see Figure 3.3a and 3.3b).

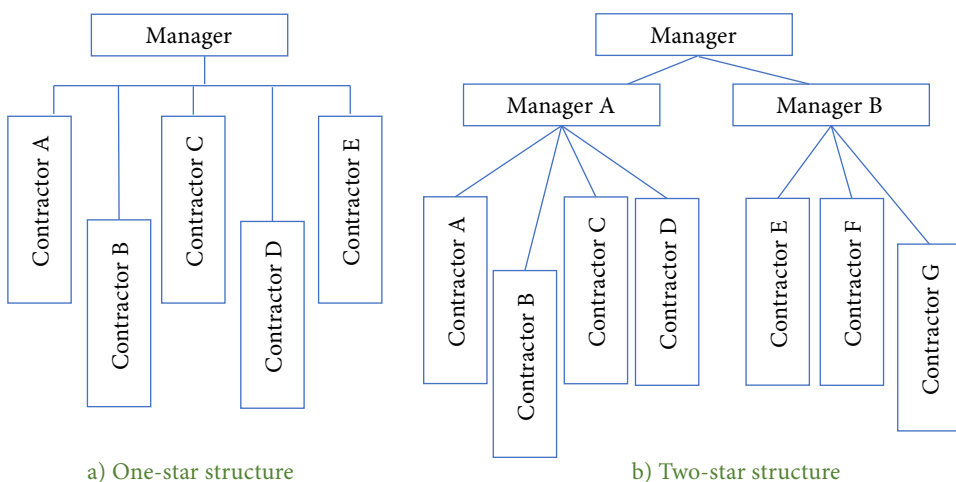


Figure 3.2. Linear organizational structure

Source: Own elaboration.

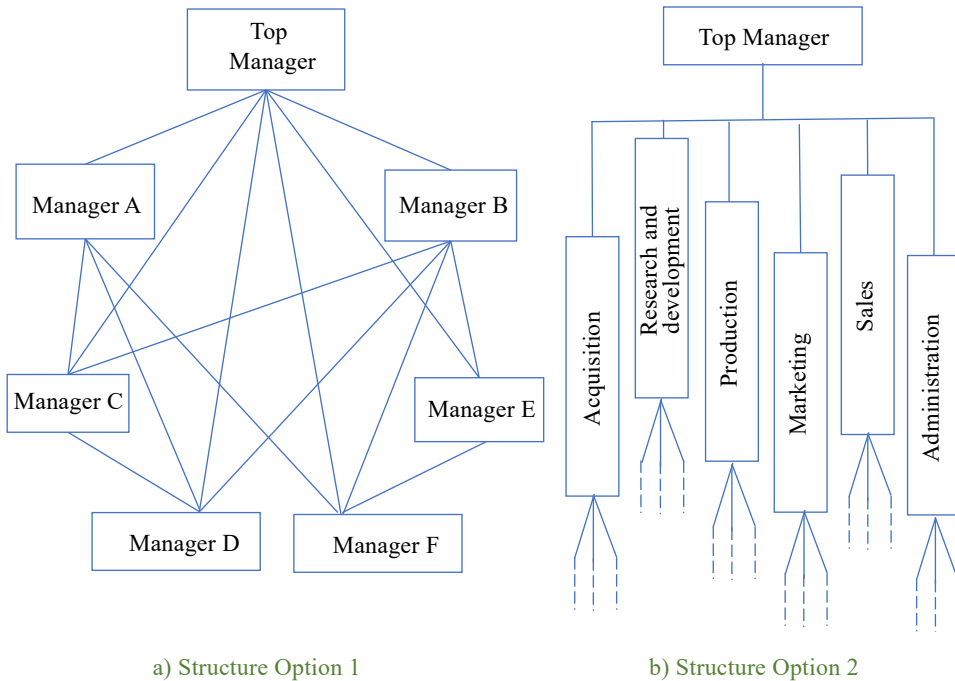


Figure 3.3. Functional organizational structure

Source: Own elaboration.

In this way (in the linear-functional structure) functional units are created towards the linear units, which conduct studies and prepare management decisions for the functional managers. Two varieties are identified in enterprises—with centralized management and limited functionalism. Innovative units are functional. Their commitment is to give preference to methodological instructions of units from lower hierarchical levels.

In today's conditions, the so-called **divisional structure** is widely distributed. In practice, it is applied in several varieties, such as the specialization and differentiation of units—by products, consumers and regions. This enables individual specialists to focus on a particular area, increase their scientific knowledge, and have specific equipment and information base for innovative tasks. In the product structure, for example, the responsibility for the production and realization of a product (product group) concentrates on one manager to whom the functional and production units are subordinated. In practice, this structure creates an innovative organization of small and largely autonomous subdivisions embedded in the structure of the enterprise. They provide an opportunity for flexibility of the innovation subsystem in the context of intensive innovation policy.

3.3.2. Typical contemporary organizational structures

Target structure (teams). Target groups are temporary organizational forms. They are formed to solve a specific innovation problem and end their activities after fulfilling their goals. Normally, the duration of such an organizational form is about 6 months, but may be extended to 1, 2 or 3 years if necessary. The number of groups is recommended not to exceed 10 people—in order to optimize the combination of activities, easy coordination and control, efficiency in work and effective use of the creative potential and professional experience of the participants. The educational and qualification composition and the professional structure of the team members depend on the complexity of the innovation task, the individual characteristics of the persons, the existence of past experience, the functional division of labour. After implementing their innovative commitment, staff return to their beloved jobs or join another organizational form within a next innovation process.

Project structure (teams). Widespread popularity in developed countries' practice has design structures. These are autonomous units with a larger number of R&D personnel and longer operating lives than target teams—2, 3, 5 or more years. They are designed to solve more complex innovation tasks, which can cover all stages of the innovation process. For this reason, the project involves persons from all units of the enterprise, with a wide educational and professional reach. As an organizational unit, the project team is built on a medium hierarchical level, directly subordinate to senior management. Their commitments are only related to solving the specific innovation problem. For large, complex and long-term projects, there are the so-called design structures. Throughout their lifetime, all managerial functions are executed within the project, and the participating specialists and contractors are entirely subordinate to the project manager. Projects can be grouped together to build chains, networks or project portfolios. After solving the innovation challenge, project team members are returning to their previous jobs or may be involved in another innovation initiative.

Matrix structure (teams) (see Figure 3.4a and 3.4b). For this type of organizational structure the simultaneous existence of functional and targeted structural elements is characteristic.

Target groups are managed by a manager who bears the full responsibility for achieving the goal. They are responsible for planning and organizing innovation activities as well as for their operational management. The head of the functional department delegates part of their management rights to the group leader. At the same time, they can provide guidance on the progress of the innovation process and on the content of innovation activities. At the core of the matrix organizational structure is the combination of the advantages of the linear-functional

and program-targeted approach following the principles of centralization and coordination. An important component of the matrix structure is the use of semi-autonomous or target groups. Their activity is based on the implementation of a specific innovation task or program to solve a specific innovation problem. The staff has a certain freedom to organize their own activities. The head of the matrix structure has great powers and is responsible for coordinating activities in the innovation program. The flexibility of the coordinated type of programmable structures depends on the manager's ability to create and use the information links between the coordinator and the team involved in the implementation of the program.

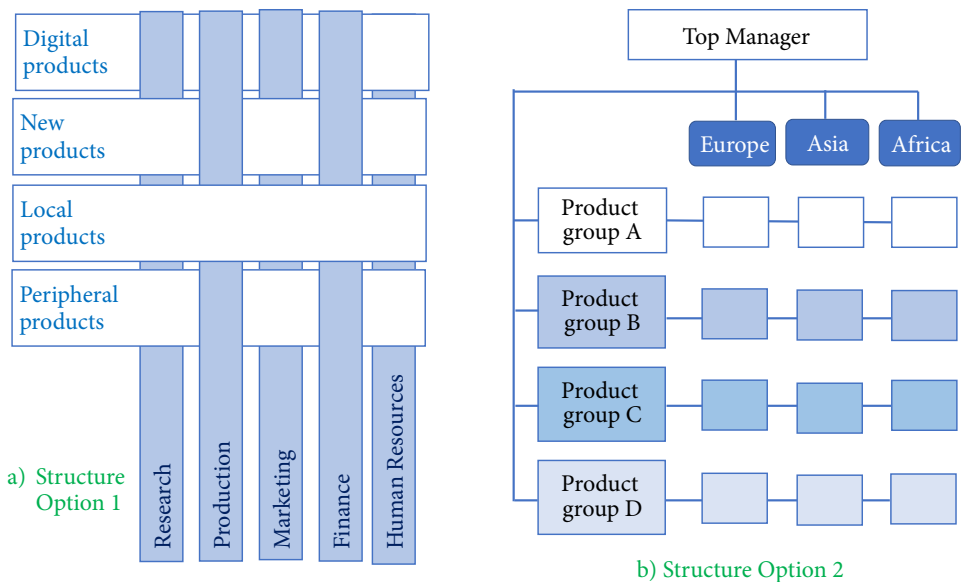


Figure 3.4. Matrix organizational structure

Source: Own elaboration.

In accordance with the method of the subject area, organizational structures may specialize in certain areas of activity according to the nature of the problems. All persons involved in the same problems are grouped into one unit. To solve scientific problems, the activity can be performed in three ways: one group; tasks are allocated to subtasks, each assigned to a separate group; one of the groups is a major contractor and assigns sub-tasks to teams specializing in specific areas. Specialists from different fields, closely related to the engineering and technological activities, are needed. In this case, it is appropriate to use program or product orientation (see Figure 3.5).

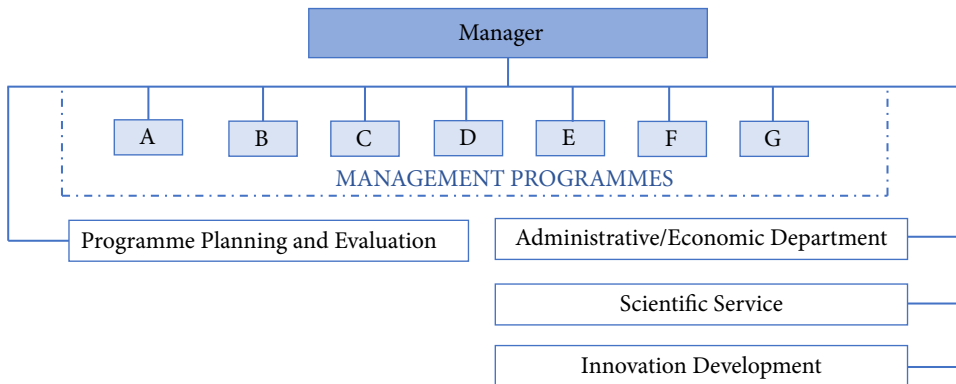


Figure 3.5. Product or program oriented organizational structure

Source: Own elaboration.

The program (product) organizational structure relieves planning. It provides a direct link between research and engineering and engineering activities. Accumulation of a knowledge pool about the problems associated with a particular type of process is achieved. Therefore, such a structure is most effective for enterprises engaged in research closely related to R&D. In enterprises conducting fundamental research, it is expedient for the organizational structure to be built on a principle basis and based on the interdisciplinary approach. Regardless of their target orientation, this type of research is somewhat detached from development. To avoid such a problem, the enterprise can modify the previous two structures and build the **stage-phase structure** (see Figure 3.6).

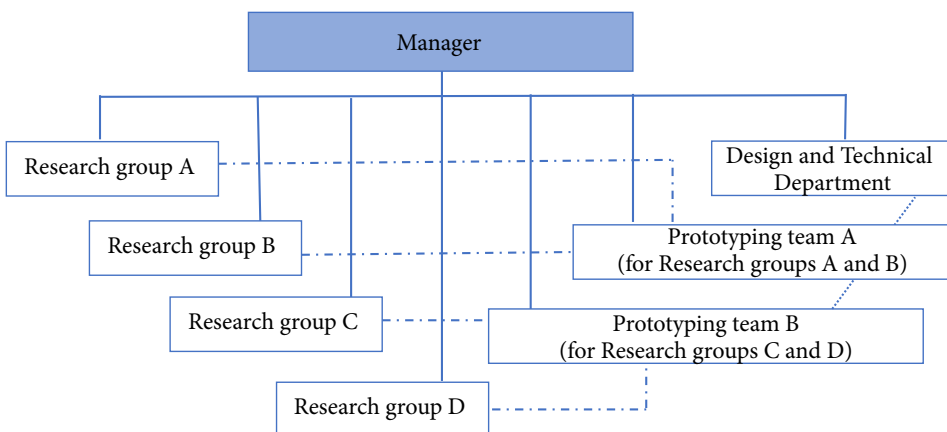


Figure 3.6. Organizational structure with special units responsible for prototyping and pilot installation

Source: Own elaboration.

However, it is predominantly research-driven and not suitable for developing prototypes.

Mixed structures (teams) (see Figure 3.7) create permanent groups of specialists with the same profile associated with the program structure.

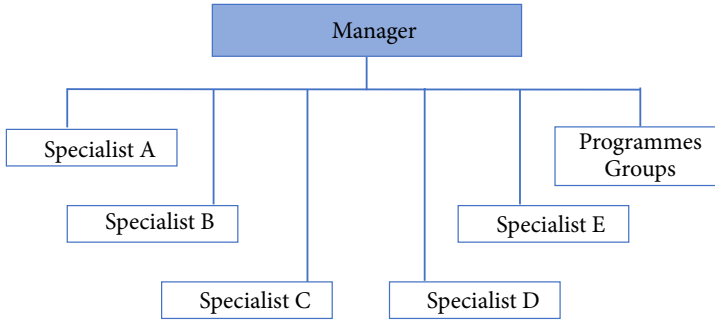


Figure 3.7. Formation of programme groups through the movement of specialists from different “disciplinary groups”

Source: Own elaboration.

In this way, the advantages of program orientation, specialization and interdisciplinary approach to innovation development are combined.

There are different ways of combining the programming beginning with the subject principle. The program group including the program manager and enterprise innovation staff can be used (see Figure 3.8).

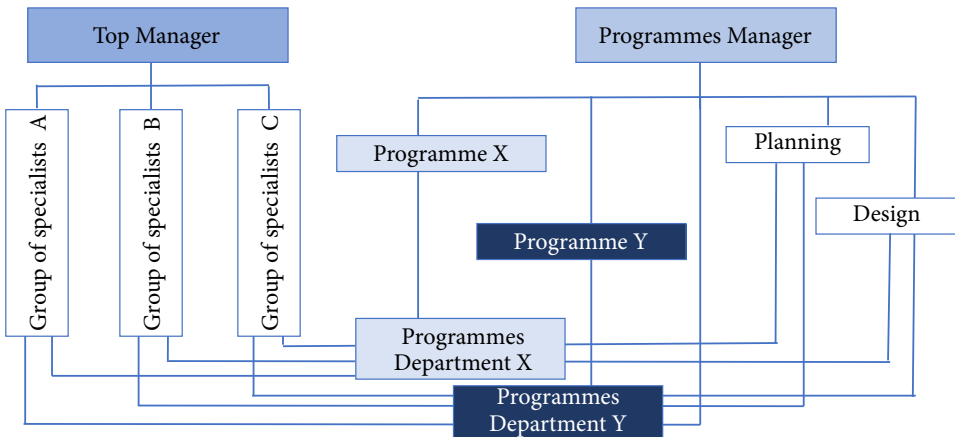


Figure 3.8. Organizational structure with permanent “disciplinary” and programme units, the connection between which is carried out by the departments

Source: Own elaboration.

The manager can transfer the assignment by disciplining or appointing a program manager. Sometimes a more flexible form is used, where the program and its coordination are assigned to program management departments.

Internal entrepreneurship. In order to exploit the flexibility and adaptability characteristic of the free entrepreneur, in some enterprises, internal structures are organized on the principle of entrepreneurship. The entrepreneur gets a certain amount of funding and considerable freedom to choose the team and the way they work. The control over their activity is based on the “final result”. Successful internal entrepreneurship is possible in an environment with the following characteristics: using the latest technological advances; stimulating new ideas; tolerance of failures; availability of resources; interdisciplinary approach to teamwork; long-term horizon; voluntary participation; appropriate remuneration system; availability of sponsors and supporters; support from senior management.

Venture team. Depending on the relationship with the venture, the venture teams are internal and external. In the internal venture, a unit which has special funds for financing is created. It is possible to build as an autonomous enterprise or as a joint venture with suppliers, distributors, sources of technology and others. Funding is provided through general research funds, through specially designed venture capital funds or by placing the so-called internal shares in the enterprise. It is not always the domestic ventures that are successful. While preserving the traditional bureaucratic approach, the risk group fails to act as a sole entrepreneur but obeys the existing formal and non-formal principles of the enterprise. External ventures are self-owned enterprises with qualified staff to provide innovative services. Typically, the idea is provided by a large enterprise through license-engineering, contract, and more. The risk of implementing the idea is borne by the companies that have saved their research costs. In case of success, they may merge or be absorbed by the larger enterprise.

3.3.3. Organizational structures of the future

Summarizing the experience of leading enterprises, several authors recommend building **hybrid structures** with many elements and a broad functional range of the innovation process, including: a central research laboratory for sustaining research with a long-term nature; a matrix structure that ensures the implementation of most of the projects that lead to the improvement of existing businesses; projects with a separate organizational structure that are essential for business development or leading to new business; affiliated companies realizing ideas with development potential not included in the current company strategy.

Along with the organizational structures hierarchically organized with a single centre, **non-hybrid formations** are dominated in the innovation business,

dominating horizontal links and coordination. The creation of structures (external and internal to the enterprise) built on the network principle corresponds to the trends of expansion of the open innovation management type, with dynamic boundaries and number of participating subjects. Modern information technologies make it possible to build virtual organizational forms that are particularly suited to using cloud technologies. The ability to create innovations and to establish their effectiveness in real time speeds up the innovation process, maximizes activities and increases the intensity of communications.

There is no strict preference for enterprises in choosing an optimal organizational structure and form of innovative business. Each structure has its advantages and has a specific potential for innovation development depending on the specific situation and its ability to be flexible and adaptable to the environment. Despite the peculiarities of different structural formations, five models of organizing the innovation process can now be identified:

- **Idea system.** A program for organizing and channelling the movement of innovative ideas is being developed. Through panels to evaluate by certain criteria and metrics, the collected ideas are approved or rejected. It is possible that the system focuses on the process of disapproval, focusing on motivating individuals, providing opportunities for re-formulation of rejected ideas, and creating conditions to prevent the passing of valuable innovative ideas.
- **Teams for continuous improvement.** The focus of this model is on teamwork and on incremental product improvements (widely used in the Toyota Production System). They are also called Kaizen Teams (Imai, 1986; Maurer, 2004). The Kaizen cycle takes the following steps:
 - standardization of activities and operations;
 - measurement and evaluation of activities and operations (determination of cycle time and internal sub-processes);
 - assessment of the deviations of the measured by the preliminary planning parameters;
 - innovation to meet compliance and increase productivity;
 - standardization of new, better activities and operations;
 - continuation of the upgrade cycle to infinity.
- **New venture teams.** They are used for ideas that are not related to cost savings or incremental improvements in products and processes. This model is suitable for developing unconventional ideas for products, services, or strategies that have the potential to turn into scientific or scientific excellence.
- **Incubator laboratories.** The incubator model of ideas became popular in the second half of the 1990s, alongside the formulation of the “grain care” thesis. In specially differentiated premises a specific innovation process is developed in a specific mechanism of the innovation process. This model is losing its popularity very quickly.

- **Innovative teams.** They are creating a large-scale network in the enterprise that includes people with innovative skills. It is based on the principle of providing clear job schedules.

The business innovation processes and structures are complex and difficult to develop. So, companies are looking for ways to outsource part of their innovation activities or to attract partners. Some business entities enter strategic alliances, clusters or entrepreneurial networks. The modern parameters of the innovative business are a prerequisite for increasing international cooperation, creating public-private partnerships, building high-tech centres, parks, polis, agglomerations, etc. The forms of mergers and acquisitions are also widespread. However, they have a lower degree of flexibility than strategic alliances.

3.4. Case study of M+S Hydraulic Plc.—Kazanlak, Bulgaria

3.4.1. History of the company

M+S Hydraulic Plc.—Kazanlak was established in 1963 as a Bulgarian construction company (table 3.2). M+S Hydraulic pursues excellence in all matters through dynamic and wise application of the latest knowledge, undertaking efforts for better environment and assuring company's contribution to the society. The main company principles are:

- providing products that customers need and appreciate, giving first priority to customer satisfaction;
- providing the quality that engenders customers' confidence;
- always pursuing new technologies to establish higher corporate and social values;
- respecting each individual's capability to work to the fullest;
- viewing own business from a worldwide standpoint as a global corporation;
- contributing, as a good corporate citizen, to development of society, undertaking efforts for a better environment;
- sharing the company prosperity with all the people concerned, including customers, shareholders and group members.

In 1995, M+S Hydraulic developed, introduced and certified the Quality System in accordance with the requirements of International standard ISO 9001:1994 (M+S Hydraulic, 2021b). M+S was the first company in Bulgaria certified with ISO 9001. The certificate was issued on September 18, 1995 from a German authoritative certification body TUV-CERT. As a result of the ISO 9001 acceptance, M+S Hydraulic rose and stabilised their own product quality, won confidence of the clients and rose as one of the world leaders in the production of the hydraulic

motors and hydrostatic steering units. Now, with the sole purpose of development and strengthen its position as one of the lead manufacturers of hydraulic motors and hydrostatic steering units, M+S Hydraulic has been certified with ISO 9001:2015 by maintaining and applying the main principles of the Quality System. Since August 29, 2006, M+S has developed, successfully implemented and certified under both OHSAS (Occupational Health and Safety System) 18001:2007 and ISO 14001:2004 (Environmental Management Systems) the management system standards. Since February 04, 2013, M+S Hydraulic production has been certified with the new Certificates of Conformity of The Russian Federation.

Table 3.2. History of M+S Hydraulic Plc.—Kazanlak, Bulgaria

| Year | Event/Activity |
|------|--|
| 1963 | The Company is established as a state enterprise, catering the construction industry, by providing maintenance and repairs for excavating machines, bulldozers and auto cranes |
| 1964 | The company starts the production of presses for cable shoes. |
| 1966 | The company starts manufacturing of loaders and hydraulic systems for housing construction. |
| 1975 | The company starts producing Hydrostatic steering units for vehicles up to 60 km/h. |
| 1981 | Initial point for production of Low-speed High torque Planetary hydraulic motors. |
| 1995 | M+S was the first company in Bulgaria certified under ISO 9001. |
| 1997 | The company is fully privately owned. M+S is traded on the Bulgarian Stock Exchange (BSE code: 5Mh). |
| 2012 | M+S became the owner of the Serbian production company Lifam Hidravlika D.O.O. The main production range is Hydrostatic steering units and valves. |
| 2015 | M+S Hydraulic PLC set up a subsidiary trading company M+S Hydraulic power Transmission GmbH, based in Germany. |

Source: (M+S Hydraulic, 2021a).

Latest awards: M+S Hydraulic PLC is awarded with “True Leaders” by ICAP Group—the largest Business Information and Consulting Group in South-eastern Europe; with “True Leaders” by ICAP Group—the largest Business Information and Consulting Group in Southeastern Europe; for the second consecutive year with the award “True Leaders” in the sector of manufacturing and sales of hydraulic products. For a consecutive year, M+S Hydraulic JSC participates in the biggest machine building exhibition in the world Bauma 2019.

The company competes on a statutory basis, conducts marketing research, tests the conditions of the market, looks for new suppliers, optimizes its products and delivery conditions, commits integrated expenditures (provided there is a suitable opportunity for their presentation) in order to stay competitive and guarantee its customers and investors a high level of profitability. The company expects the suppliers to have sufficient capacity, to have additional quantities of the ordered materials, products and tools on stock, in order to be able to react (with very short

lead time) in the event of increased demand on a particular product or in case of refunds (e.g., because of quality problems). The company expects its suppliers to use adequate, up-to-date technologies and work on new technological projects.

M+S Hydraulic Plc. adheres to the understanding that by implementing business innovation processes, and combining several types of business functional changes at the same time, synergistic effects are achieved. Consequence of such a company sustainable philosophy, is development based on structure as an innovation.

3.4.2. Results and solutions of structural innovation

As a result of the decisions taken, and the innovative changes made, M+C Hydraulic reports positive changes in three areas (based on the assessment of the company managers, obtained through an interview): staff-related indicators, customer satisfaction indicators and indicators of financial excellence.

Staff-related indicators: increased staff satisfaction with work commitments, attitudes towards them and personal achievements, higher average number of working days with staff attendance, reduced staff turnover, increased sense of security and improved working environment parameters, accumulated number of proposals for improvements in production and labour processes, improved parameters of deadlines and organization of deliveries, reduced time for execution of orders and increased labour productivity, reduction of mistakes and defects, saved costs for maintaining quality at a high standard of execution, etc.

Customer satisfaction indicators: increased overall level of customer satisfaction, lowering the number and frequency of customer complaints, maintaining the mass of regular customers.

Indicators of financial excellence: increase in sales, maintenance of a stable market share with noticeable increases in values in periods of innovative offers of the company, accelerated return on assets and return on sales, increase in the value of the company's share prices.

3.5. Case study of PIM-Ltd.—Haskovo, Bulgaria

3.5.1. History of the company

The company PIM-Ltd. was established in 1990 in Haskovo for design, manufacture and erection of equipment made of stainless steel (PIMBG, 2021). The company has strengthened its positions of a leader in the manufacture of machines, devices and process lines for the food industry and it has a serious presence on the Bulgarian and international market. It is specialized in the construction of large wine production

plants as well as small wineries of the capacity of 100 t grapes per season and it has individual requirements to the equipment. PIM also produces modern production process lines and equipment for processing of milk, process lines and equipment for production and processing of meat—mobile or stationary, depending on the customer requirements, process lines and equipment for production of chocolate products, macaroni, ketchup and mayonnaise.

The company is working jointly with its customers, in order to find together the best solution for the best equipment. Highly skilled team of professionals—engineers, administrative personnel and workers take care of the perfect running of each stage of every project. The Company provides maintenance and consultation for the already erected and operating installations. 75% of their installations are realized on markets abroad.

PIM has 50 000 square meters production territory, including 7 specialized shops and 5 work sites. Since 2005 there has been a successfully operating shop in the town of Madjarovo. A transport section has been established for the product transportation in the country and abroad.

The major company principle is “Confidence gained by professionalism”.

PIM-Ltd. is binding its strategy with full orientation towards the quality. The production of perfect products is the major factor that is creating their success. Through efforts which are oriented towards the customer needs, they are aiming to justify the confidence of their customers. For this reason they have implemented the Quality management system—ISO 9001:2015, which is being continuously improved and controlled, and its state is being proved by a certificate, issued by a certifying body.

PIM-Ltd. has made structural changes several times since 2010, given the development of business activities and diversification of production.

3.5.2. Results and solutions of structural innovation

M+S Hydraulic Plc. combines any innovative change, especially with a high degree of innovation changes, with structural changes of organizational, managerial and multifunctional nature, allowing flexibility and readjustment in line with market needs, resource environment and internal indications coming from the Human resources system. On this basis the company:

- adapts the company’s external environment through a flexible and adaptive structure based on a long-term business strategy;
- organizationally “redesigns” the processes that take place in the internal business system—structure, decision-making processes, compensatory system, information flow, distribution of tasks and cohesion of individuals. Achieves internal integration and balance of the business system.

Questions / tasks

1. Define the term organization from different points of view.
2. What are the axes of tension and opposition in the development and implementation of innovation in the organization.
3. Describe the types of organization of the business and innovation processes.
4. Define the term “organizational structure”?
5. What approaches can be applied in the construction of the organizational structure within the innovation process?
6. Specify the classic organizational structures. Provide a brief description of each of them.
7. Which organizational structures are marked as currently needed?
8. What types are the organizational structures of the future? What is their potential for innovative development?
9. Briefly describe the generalized contemporary models of organizing the business innovation process.

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4.

PROCESS AS AN INNOVATION



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Abstract: The aim of the chapter is to present key essential aspects of innovation and their species diversity. Basic definition formulations are considered. The emphasis is on business process innovation. One case study of company from Bulgaria that has implemented business process innovations is described, as well as the results of the innovation changes. With the help of various cognitive, analytical, inductive-deductive, case and simulation methods, students achieve the acquisition of new knowledge by combining theoretical statements, including familiarity with some international standards, and practical skills based on the principle of learning by doing. The topic draws students' attention to the need for a comprehensive examination of the issues of innovative change and the formation of economic thinking, oriented towards the implementation of business solutions for sustainable prosperity based on innovative development.

Keywords: business process innovations, business process innovations models, innovations, innovation activities.

4.1. Introduction

The contemporary business environment is extremely dynamic, difficult to predict and risky. It creates preconditions for “shining” on the market and at the same time—for a quick exit from the market dimensions. There are often changing configurations of market players, reformatting of company and sectoral borders, globalization of markets, strong and often unfair competition, variable regulations/deregulations, growing need for digitalization, etc. These processes are accompanied by a sharp increase in the strength of customers and the pressure they exert on companies. Customers demand fast and convenient provision of products and/or services, with an increasing number and complex combination of utilities as a package of solutions, with an optimal “quality / price” ratio. Such an environment challenges companies to be flexible and adaptable, to follow the call of the market, which requires constant changes in company systems, in the activities they perform, in the way and their role of participation in other systems external to the company. The business aspiration to adapt to the market dimensions is focused on the search and implementation of innovative solutions, part of which are the various changes in the *business processes* conducted in companies. The aim of the chapter is to present key essential aspects of innovation and their species diversity.

4.2. Theoretical background

Companies can implement business processes, developing their activities on a function-oriented or process-oriented principle. Function-oriented companies construct activities by allocating tasks to functions (e.g., research and development, production, purchasing and delivery, etc.). The process-oriented company focuses on the key processes both within the company and its structural units, as well as on the most important processes that take place as a continuous interaction with external entities and organizational units. Process-oriented companies are better positioned to market expectations and customer needs, as they are more adaptable to changes in the business environment (KGiSL, 2020).

Within the *process point of view*, two definition approaches can be additionally identified: from the point of view of *production theory* and of *system-oriented company theory*. Within **production theory**, the emphasis is on the transformation function of a process. “A process is triggered by an event; this event serves as an indicator for the occurrence of a defined state. Within a process, an object (input of the process) is subject to different activities. These activities make changes to the object, thus changing the original state. The changed object leaves the process and

defines the output of the process” (KGiSL, 2020). **System-oriented theory** allows a more differentiated view of the relationships between the elements (tasks, task managers, material resources and information) of the company and between the company and its environment, with three types of connections and relationships (KGiSL, 2020):

- *Deliverables connections and relationships*—include assigning tasks to task managers and material resources;
- *Sequence connections and relationships*—include the division of labour and the resulting dependencies between tasks;
- *Information and communication connections and relationships*—develop on the basis of management relationships and consistency. They connect tasks, i.e., task and machine managers through information.

Business process management is a concept for model-based design, coordination and implementation of business processes (see Figure 4.1).

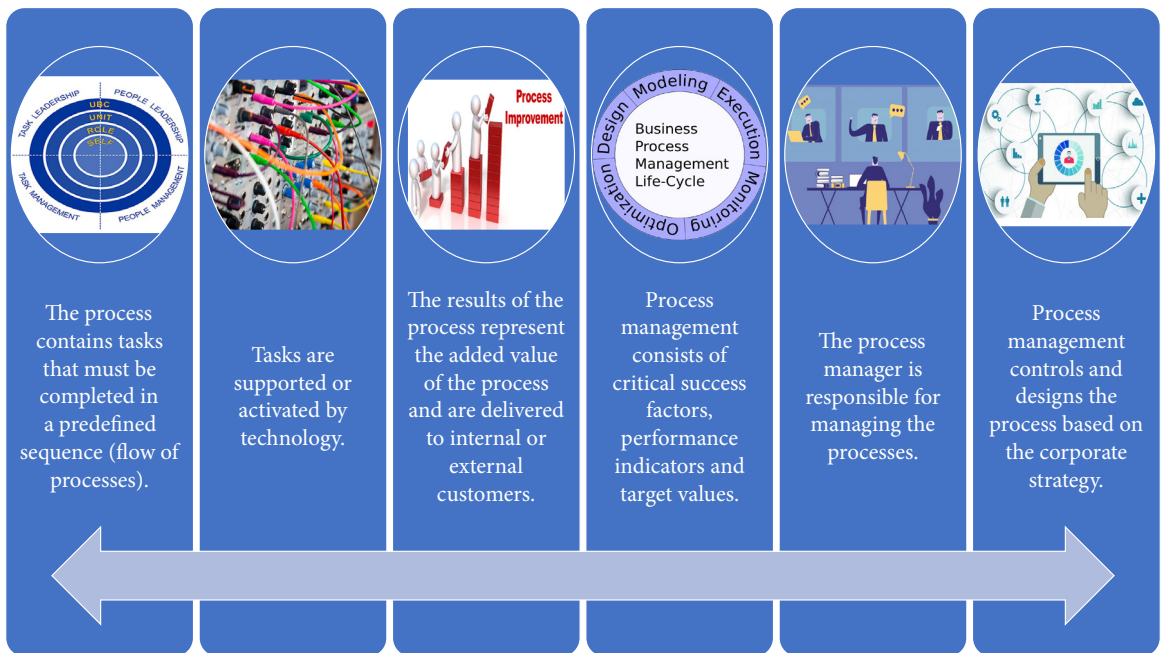


Figure 4.1. Key points of reference in Business Process Management

Source: Adapted according to (KGiSL, 2020).

Techopedia describes a business process as “a wide range of structured, often chained, activities or tasks conducted by people or equipment to produce a specific service or product for a particular user or consumer [in order] to accomplish

a predetermined organizational goal”. In simpler terms, “processes entail the combination of corporate resources, such as facilities, skills, and technologies, to reach an organizational goal” (Techopedia. Dictionary, 2020).

According to the terminology in Oslo Manual the **business process** includes the core business function of producing goods and services and supporting functions such as distribution and logistics, marketing, sales and after-sales services; information and communication technology (ICT) services to the firm, administrative and management functions, engineering and related technical services to the firm, and product and business process development. Business processes can be considered as services for which the firm itself is the customer. (Eurostat/OECD, 2018, p. 72).

It can be delivered in-house or procured from external sources.

The main aspect in the context of **process management** is customer orientation through the following four approaches (KGiSL, 2020):

- *Customer satisfaction*: Identifying and satisfying customer needs using process deliverables.
- *Quality*: Ensuring the process quality (nature of the process deliverables) by means of constant measurements (comparison of target vs. current values) and derivation of measures.
- *Time management*: Reduction of throughput times (an event that triggers the process up to the availability of the process deliverables for process customers).
- *Process costs*: Planning of overall costs/cost rates of processes and tasks as well as the derivation of efficiency-enhancing measures.

Business innovations are related to the conscious use of information, imagination and initiative to extract larger or different values, and include all the processes that generate new ideas and make them useful. In this sense, business innovation has a number of characteristics, the more important of which include (Varamezov, 2005, pp. 11–12; Panteleeva, 2013, p. 28):

- the subject (what changes and how it changes);
- degree of novelty;
- depth of transformation (degree of variance radicality);
- scale of transformation (affects one, several spheres of activity or enterprise as a whole);
- level of development (level of preparedness for implementation);
- the potential (evaluation of the expected beneficial effect and its justification);
- expected duration of deployment;
- labour-intensive implementation;
- volume of financial costs required for implementation, etc.

4.3. Process innovations—definition aspects, parameters, types and examples

The **process** itself can be seen as a sequence of steps to achieve a certain result. **Innovation** is associated with identifying and implementing a different / unique way for achieving a desired result. By implementing and integrating the two conceptual approaches (for process and innovation) we can define **process innovation** as the “implementation of a production or delivery method” (including a method indirectly related to the company’s products and services) “that is completely new or has undergone significant improvements”. Changes in software, technology and equipment, processes to improve the performance of HR or Finance functions, etc., are examples of process innovations (Process innovation steps, 2016; American Society for Quality, 2021; Terjesen & Patel, 2015).

According to Oslo Manual **business process innovation** is “a new or improved business process for one or more business functions that differs significantly from the firm’s previous business processes and that has been brought into use in the firm” (Eurostat/OECD, 2018, p. 72). Based on the basic principles defining the processes and their management in the companies, terminological clarity can be given regarding the process innovations. Prospects for innovation change can be result- or process-oriented. In the *result-oriented innovation perspectives*, the efforts are focused on the realization of quality innovations based on the innovation object, the level of innovation and the reference unit for determining the property of the novelty. Process innovations aim at efficient production of products and/or provision of services. Within the *process-oriented innovation perspective*, process innovations are implemented on the basis of a structured approach with a series of tasks and solutions that are logically and temporally related to each other. Tasks are used to develop and implement processes. Innovation objects are the individual elements of the processes (e.g., tasks, results, etc.) or the whole process. Process innovations are complex probabilistic solutions that bring benefits and effects as a result of changes within the three types of the business processes: *Value-creating processes*, *Support processes* and *Management processes* (KGiSL, 2020) (see Figure 4.2).

The implementation of process innovations requires the combination (within a given environment) of material and financial resources, technologies, structures and skills, thus enabling the company to save money and time in the production of products and/or the provision of services that meet market demands more in terms of parameters, quality, convenience, speed and price. The redesign of the processes looks for the intersections between the parameters that create market attraction and the parameters that provide the company with an additional boost to success.

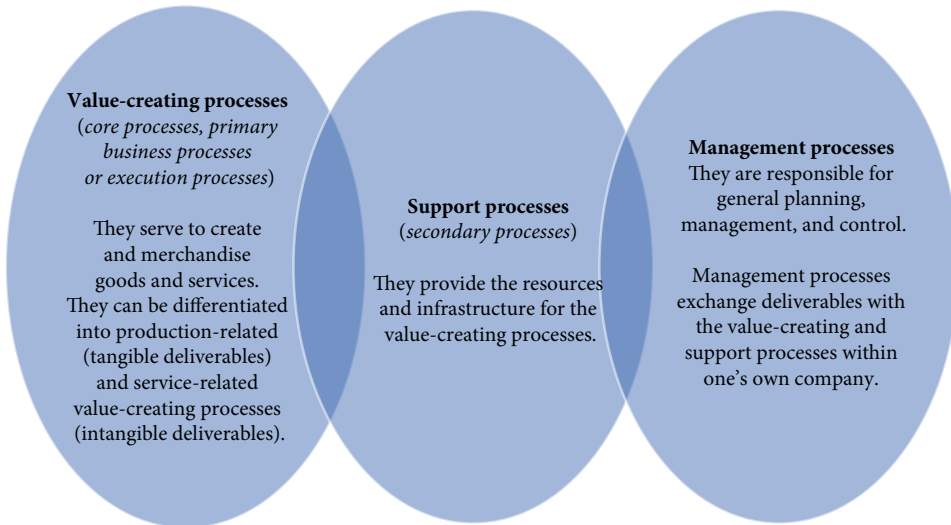


Figure 4.2. Types of business processes in terms of possible process boundaries for the implementation of process innovations

Source: Adapted according to (KGiSL, 2020).

The dynamics in the environment and the mechanisms of doing business have led to changes in the way and scope of reporting and collecting information about the innovation activity of companies. As a natural response to the need to define an objective terminological basis for measuring the empirical projections of the innovation behaviour of structural formations in various fields, changes were made to the Oslo Manual and a new version of this standard was adopted. Relevant links were made between the two versions from 2005 and 2018. Compared to the previous edition, in the new version of the manual the scope of process innovations has been expanded (see Table 4.1).

Many of the process innovations are not easily visible to the market, especially those introduced within companies, but reflect on changes in market dimensions, and are effective for a number of players in the value chain. Process innovations are related to changes in the equipment and technologies used, team development, changes in rules and procedures, leading to positive effects for all stakeholders.

The increasingly common classification perspective, according to Doblin's model (Doblin.com, 2013) provides an opportunity to define innovation from a more pragmatic point of view. According to Doblin's systematization of innovations one of 10 types of innovation (innovation approach) is process innovation. This type of innovation is identified "when the processes inside the company are improved for their efficiency either to reduce production time or to reduce certain costs".

Table 4.1. Functional categories for identifying the type of business process innovations

| Short term | | Details and subcategories |
|---|---|--|
| Process innovations | Production of goods or services | Activities that transform inputs into goods or services, including engineering and related technical testing, analysis and certification activities to support production. |
| | Distribution and logistics | This function includes: a) transportation and service delivery; b) warehousing; c) order processing. |
| | Information and communication systems | The maintenance and provision of information and communication systems, including: a) hardware and software; b) data processing and database; c) maintenance and repair; d) web-hosting and other computer-related information activities. These functions can be provided in a separate division or in divisions responsible for other functions. |
| Marketing | Marketing and sales | This function includes: a) marketing methods including advertising (product promotion and placement, packaging of products), direct marketing (telemarketing), exhibitions and fairs, market research and other activities to develop new markets; b) pricing strategies and methods c) sales and after-sales activities, including help desks other customer support and customer relationship activities. |
| Organizational | Administration and management | This function includes: a) strategic and general business management (cross-functional decision-making), including organizing work responsibilities; b) corporate governance (legal, planning and public relations); c) accounting, bookkeeping, auditing, payments and other financial or insurance activities; d) human resources management (training and education, staff recruitment, workplace organization, provision of temporary personnel, payroll management, health and medical support); e) procurement; f) managing external relationships with suppliers, alliances, etc. |
| N/A | Product and business process development | Activities to scope, identify, develop, or adapt products or a firm's business processes. This function can be undertaken in a systematic fashion or on an ad hoc basis, and be conducted within the firm or obtained from external sources. Responsibility for these activities can lie within a separate division or in divisions responsible for other functions, e.g., production of goods or services. |
| Product | Goods and services include knowledge-capturing products, and combinations thereof. Includes the design characteristics of goods and services. | |
| Main classification according to Oslo Manual | | |
| Oslo Manual 3 ed. | Oslo Manual 4 ed. | |

Source: Based on (Eurostat/OECD, 2018, pp. 73–74; Brown, 2008, Eurostat, 2018).

Process innovations show how the company uses signature or superior methods to do its work (Innovating society, 2020a). Process innovations “often form the core competency of an enterprise and may include patented or proprietary approaches” (Innovating society, 2020b). It is considered the least risky form of innovation, probably because it usually aims at minimizing costs, rather than driving revenues. As a consequence, it has attracted less enthusiasm and attention from entrepreneurs, executives and scholars (Databerg, 2021).

In defining the directions and dimensions of process innovations from the positions of the Doblin Model, we can rely on the sample general base map of Deloitte (Doblin.com, 2013) (see Figure 4.3).



Figure 4.3. Sample general base map of Deloitte in defining the directions and dimensions of process innovations from the positions of the Doblin Model

Source: Based on (Doblin.com, 2013).

A large number of business process innovation cases can be cited, for example (Panteleeva, 2013, p. 43):

- the introduction of new automated production line equipment;
- the design of product changes using new computer software;

- the introduction of a bar code or active RFID (radio frequency identification) system for tracking goods;
- the introduction of GPS devices for tracking transport services;
- the introduction of a new reservation system in a travel agency;
- the development of new project management techniques in a consulting firm.
- the application of new or significantly improved information and communication technologies (ICT).

The most frequently cited examples of innovative change in type of process innovation include:

- *Ford*: Henry Ford introduces a production line in his car company's production processes, which leads to significant changes in the process and the way of assembling vehicles, improves the use of timing and significantly reduces the production time of a vehicle from 12 hours to 1,5 hours (Differential, 2020).
- *Grupo Bimbo*: Bimbo introduces a dashboard for mobile sales, which provides quick access to information about queries, sales, other KPIs, shortens meeting time, decision-making, resource allocation and results (Differential, 2020).
- *McDonald's*: The sale of franchise in the late 1940s, as well as the creation of call centers for remote ordering from many restaurants in the United States, led to the optimization of time organizational indicators and a rapid increase in economic results (Innovating society, 2020a).
- *Google*: Process innovation in the field of human resources, related to offering employees 20% of their working time to be free to carry out personal projects contributed to the realization of multifaceted benefits for the company (Innovating society, 2020b).

The ability to identify precisely potentially successful innovative ideas and to transform them into working business sentences in a timely manner is essential for companies. The implementation of successful process innovations brings multifaceted benefits that lead to increased efficiency and improved profitability of the company. Some of the business benefits of innovation in the process include as follows (Upadhyay, 2020):

- Process innovation adds value by improving the overall supply chain, realizing cost efficiency, improving the quality of products and services, improving the brand image, increasing productivity and achieving overall company growth.
- Achievement of greater flexibility and adaptability to customer needs by applying new ways to develop and deliver improved products or services to the market.
- The composition and structure of the workforce are optimized; better customer engagement and work efficiency are achieved.
- Competitive differentiation is realized on the basis of improving business processes, including in an operational manner, on the basis of better customer service and gaining more experience.

4.4. Factors affecting process innovations

The process of developing new products and technologies, and implementing different process innovations is influenced by a number of factors. These factors act in different ways—some stimulate the process innovations, while others delay the development or directly block the innovative activity of the company. Despite the rich variety of factors, they can be classified into several main groups (Varametzov, 2013, pp. 50–58):

- **Techno-economic.** Stimulating: availability of a reserve of financial and material-technical means; availability of the necessary scientific and technical potential; compliance of the new product with the existing technology, production experience and marketing system of the company; material stimulation of the innovation activity, etc. *Obstructive:* lack of funds to finance innovative projects; weak scientific and technical base; lack of reserve capacity; non-compliance of the new product with the existing technology, production experience and marketing system of the company; dominance of the interests of the current production, orientation towards short-term purchase of costs, etc.
- **Legal and regulatory.** Incentives: legislative measures stimulating innovation (tax breaks, preferences, etc.). *Obstructive:* restrictions by antitrust, tax and patent law.
- **Organizational and managerial.** Stimulating: flexibility of organizational and management structures; democratic style of governance, predominance of horizontal information flows and informal relations; decentralization, autonomy; support from senior management; good interaction between functional departments; availability of long-term plans and clearly defined goals; correct identification of needs; presence of an energetic organizer of the innovation process, etc. *Obstructive:* firmly established organizational structures with excessive centralization, conservatism of organizational and management structures, hierarchical principles of construction, predominance of vertical information flows; lack of support from senior management; poor interaction between functional departments; lack of long-term plans and clearly defined goals; formalism; orientation towards short-term return on investments, departmental closure; lack of an energetic organizer of the innovation process, etc.
- **Socio-psychological.** Stimulating: public recognition, moral and material encouragement, providing conditions for self-realization, creative atmosphere, tolerance of failure, etc. *Obstructive:* resistance to changes that may lead to changes in status, the need to look for a new job, breaking stereotypes of behaviour; fear of uncertainty; penalties for failure, etc.

The influence of factors outside the company also deserves attention. In particular, the problem of the influence of the national culture, or rather of some of its features (individualism, collectivism), on the process of developing new

process innovations has become especially acute. In a society with a high degree of individualism, the connection between its members is lost, as each individual is concentrated on his own interests and the interests of their immediate environment. Examples of countries with a high degree of development of individualism include the United States, Great Britain, Canada and Italy. A society with a low degree of individualism (for example, Japan, Iran, Taiwan, and Colombia) adheres to group values and pursues collective interests. Although sociologists have studied this feature of national culture quite thoroughly, they practically ignore the influence of individualism in the process of developing new products.

Research by specialists in the field of innovation management gives sufficient grounds to assume that a high degree of individualism can be associated with the successful development of process innovations. The practice shows that new of process developers are people who are committed to new ideas. Even if others see one idea or another as not worth the cost of resources, these people, in spite of everyone, challenging colleagues, try to find answers to complex, intricate questions. Their intransigence, self-confidence and perseverance are the driving force in the innovation process, which creates prerequisites for its successful development and helps to overcome emerging obstacles.

The up-to-date idea of the innovator allows us to say with confidence that the high level of individualism determines the success of the activity of creating new of processes. Innovators generally rely on their ingenuity and personal participation in the process of creating and implementing new concepts. In most cases, they work autonomously, but at the same time they have a significant impact on the innovative work of their colleagues. The presence of innovators is assessed as the main criterion that distinguishes successful from unsuccessful innovation projects. Innovators in the field of business technology are similar to their colleagues in the field of industry in their purposefulness and individual approach, but they are often not the generators of ideas or carriers of knowledge needed to create a new product, service, technology, etc. Their creative potential depends on the representatives of the highest management units, who help them to reveal their potential and provide the necessary resource base for the successful realization of the ideas. Often, the basis of a new, successful process lies in the efforts of senior management. At the same time, the innovators in the field of business technologies, undoubtedly, do not play an insignificant role in the successful implementation of the innovation projects initiated by the management. Globally viewing the problem, it can be noted that the ingenuity and creative potential of one or another national culture and the successful development of new products are directly related to the level of individualism.

Collectivism, as the antithesis of individualism, can also be attributed to the factors that have a positive impact on the process of creation of process innovations. The Japanese approach to developing new of processes can serve as a typical

supporting example. In Japan, collectivism is one of many factors influencing the innovation process. For example, an integral part of Quality Function Deployment (QFD) technology and the Quality Circle program, as well as many other similar programs, are the working groups—a direct manifestation of collectivism. Japanese working groups are characterized by strong mutual support and consensus. Feelings of empathy and an inner commitment to contribute to the common work set Japanese new product developers apart from their counterparts in other parts of the world. Research on the design and matrix structure on a global scale confirms the indisputable role of group orientation in facilitating the process of creating new products. As a result of studying hundreds of programs for new product/service development, it has been found that design and matrix structures have a significantly stronger impact on the development process than functional ones. So, the collective approach to creating new products is more effective than the individual. When the level of communication, cooperation and harmony is high, i.e., there is a readiness for coordinated work and common goals, the probability of success in creating new products increases significantly.

The results of practical research on the individual and collective approach to the development of new processes are contradictory. On the one hand, individualism promotes the development of new processes, on the other—collectivism also has the same influence. This obvious paradox is removed by a more detailed examination of the stages of the innovation process. As noted earlier, the concept of a two-stage innovation process, including the initiation and implementation stages, has recently emerged. At the initiation stage, the priority task is to develop the most viable, highly feasible ideas by maximizing the range of approaches to their development. No less important requirements are the application of less strict, non-restrictive methods of thinking, which encourage any manifestation of mutual trust, participation in common work, recognition of the achievements of colleagues. That is why the initial stage of the innovation process must be led by people who are firmly convinced of the importance and value of the idea and, therefore, at this stage, individualism is more important. Conversely, at the implementation stage, cohesion and unanimity of the team is needed, as the basic concept of the new product has already been developed and making radical changes can only increase the cost of financial resources and time needed to implement the innovation project. New process developers need to work closely with each other so that the project does not go beyond the set budget and set time limits. In this sense of the implementation stage collectivism is more important. Research on innovation infrastructures shows that companies pursuing an active innovation policy, aiming to encourage the freedom of thought and action of developers, use free rather than a strictly regulated structure at the stage of initiating the new product. Conversely, the implementation stage requirements to the structure are stricter in order to achieve enhanced coordination and control over the implementation of the innovation project.

4.5. Case study of Tomika-Metal JSCo—Bulgaria

4.5.1. History of the company

Tomika-Metal JSCo was founded in 1992 in Plovdiv (Tomika-Metal, 2021). It is a large company, whose activities are manufacturing and assembling of stainless-steel armature of highest quality, tanks and equipment for food-processing, cosmetic and chemical industry. Today Tomika-Metal JSCo is a company with strong and steady presence both on the Bulgarian and the International market. Tomika-Metal JSCo constantly enlarges the range of manufactured products and the market for its sales. The company has its own production base consisting of three plants located in Plovdiv, Svishtov and Chirpan with total industrial area of more than 35 000 m². The mechanical workshop is situated on covered heated area of 15 000m² and has two distinguished sectors—“Mechanical treatment” and “Welding”. The full set of machines for mechanical processing combined with lifting equipment is prerequisite for flexible and effective manufacture. The constructive—technological team works out its own constructive and technological documentation on the basis of solid preparation, gained experience and high-quality collaboration with Solid Works. The company have abilities for CNC plasma, guillotine, circular and band cutting. Tomika-Metal JSCo cuts out and bends preparations from round, profile and foliate steel, grinding of cylindrical, prismatic and corps details. It is processing separated details and constructions with multiform geometry, weight and complexity.

The company has column and boom machines, sheet welding machines and specialized installation for frontal and corner welds. Its welders are certified. Basic methods for welding in protected environment are WIG and MIG—MAG. Independent control of welds / from outside companies/by client’s requirement is conducted. The company provides full tracing and transparency of production process; control of geometrical dimensions, in conformity with constructive documentation; control of finishing works; 100% final control of ready product; conformity with technical parameters of ready product.

Reliability and safety of equipment and installations manufactured by Tomika-Metal JSCo are repeatedly proved. The products marked with TM INOX have been acknowledged many certificates. They have successfully passed many tests of Bulgarian and international certifying organizations. Tomika-Metal JSCo is a winner of two gold medals from international exhibitions and prize for most essential innovation in utilization of Solid Works.

Using their own potential, the company offers:

- engineering, design, manufacture and delivery of equipment, assembly on place, start in action, guarantee and out-of-guarantee service;
- reconstruction—introduction of new technological level in companies, using engineering solutions and modern equipment;

- modernization—partial substitution of existing equipment which aims at economy of resources and manufacture premises.

Tomika-Metal JSCo offers its clients an exceptional opportunity, concerning the choice of equipment, which is guaranteed by company's machinery stock (metal cutting and metal processing machines), the choice of optimal technology and the highly qualified personnel.

The company management believes that its clients are most important. This is the reason for doing its best in order to contribute to the client success. The main aim of the company is to enlarge the scope and quality of its services. The company does that through unification and combination of experience, knowledge and skill of its experts with requirements of its clients. Long production experience, team of qualified specialists, permanent ambition for perfection and modern production equipment—this is the winning formula, which guarantees perfect performance of every project.

In 2017 Tomika-Metal JSCo developed the project for financing by the operational program “Innovation and competitiveness”, co-financed by the European Union through the European Regional Development Fund, within the procedure “Support for the implementation of innovations in enterprises”. The project was approved and the company concluded a grant agreement with the Ministry of Economy (Bulgaria) for the implementation of the project “Implementation in the production of innovative multifunctional installation for production and storage of beer from classic and specific raw materials in Tomika-Metal JSCo”, total value of BGN 2 860 400 or EUR 1 462 649,33 (including BGN 1 215 670 or EUR 622 028,25—European, and BGN 214,530 or EUR 109 701,95—national co-financing) with a duration of 18 months. The project aim was to diversify the activities of Tomika-Metal JSCo by introducing into production an innovative product—a multifunctional installation for production and storage of beer from classic and specific raw materials—the company's own development. Within the project, a laser machine, a four-shaft hydraulic sheet bending machine, a CNC press brake, a CNC guillotine, a mobile lathe, and a pipe cutter were purchased and put into operation.

4.5.2. Results and solutions of innovative process

In connection with the implementation of the project the Tomika-Metal JSCo developed new product accompanied with services new for it, did engineering and technical testing, analysis and certification activities to support production. The company bought new hardware and software, set up computer-related information services.

At the company level it was identified processes and activities, that are not working at good level or can be improved as well as it was determined if that helps them

deliver better value. At the team level, the company implemented rapid processes for analysis and assessment of the current situation and timely tacked steps to develop innovations based on rapid retrospective analysis.

Generally, within the scope of the project it was tested with various simulation models and projects related to possible options for combining new or improved methods of production, delivery and implementation of ancillary activities to determine whether and to what extent the changes can provide better value.

As a **result**, the implementation of the project Tomika Metal JSCo achieves a significant increase in its key performance indicators (KPI). The following positives are considered:

- *Company results:*
 - reduced production costs per unit of product / service provided;
 - reduced time for the production of the product and the performance of the accompanying services;
 - increased number of manufactured products / services provided for a similar period of time;
 - improved quality of communication with customers.
- *New value generated as a result of:*
 - changes in working methods and logistical improvements, combined with organizational changes in the work regime of staff, forms of work organization and flexible forms of work organization.
- *New value generated by internal stakeholders:*
 - two new business partners with invested capital;
 - increased by 5% the number of company users;
 - increased by 15% cash inflows.

Questions / tasks

1. Define the terms “process” and “business process”.
2. What are process innovations?
3. What approaches can be applied in defining the processes in the company?
4. What are the main characteristics of business innovation?
5. What are the three types of business processes within which complex solutions in the form of process innovations can be identified and implemented?
6. What are the main differences in defining the scope and content of process innovations in the last two editions of Oslo Manual? What are the probable reasons for these changes, in your opinion?
7. Give examples of successful process innovations.

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SUSTAINABLE AGRICULTURE: DEVELOPMENT OF ORGANIC FARMING. CASE STUDY OF THE CZECH REPUBLIC



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Abstract: Sustainability is a crucial topic in today's agricultural policy discussion. Agriculture faces 2 challenges—feeding increasing number of people, while being sustainable and reducing negative environmental effects. Agriculture will require “structural transformation” to meet goals of global society—the Sustainable Development Goals. Land management, bio-diversity and soil degradation are often correlated with farming practices. Thus, having sustainable agriculture requires transformation of farming practices, and organic farming belongs to potential directions. For over 3 decades, organic farming has gained on importance, market share as well as popularity among consumers, producers and policymakers. Health concerns, public support and market potential convinced farmers to introduce non-conventional farming practices. On the contrary, organic farming is often criticized for lower production potential, higher pricing and labour intensity. In the Czech Republic current organic production is rather extensive (on pastures), and products are not sold as organic due to the market oversaturation. However, slow but increasing trend in crop production, which could lead to improved farm economies is observed. The future of organic farming development as individual by side effects related to organic farming are considered to be of the key significance for long-term sustainability of agricultural activities. Organic farming is not a solution to current society issues, but it could be considered as innovative alternative approach for future generations.

Keywords: Czech Republic, European Union, innovation, organic agriculture, support, sustainability.

5.1. Organic farming and agricultural sustainability

Sustainable Development Goals (SDGs) introduced by the United Nations motivates governments and farmers to innovate farming principles as agriculture does not have only the production function, but it also serves as provider of environmental and social factors (Brožová, 2018). Agricultural sector struggles to follow growing global population and rising global demand. In addition, agriculture must reduce negative environmental effects such as land degradation, pollution, greenhouse gas emissions, water depletion or unbalanced nutrient cycles (Thematic Group on Sustainable Agriculture and Food Systems, 2015). Agriculture will require “structural transformation” to meet the goals of global society. Transformative systems (including also organic farming) are one of the two mostly discussed scenarios to stay within planetary boundaries. The second one includes the increase of efficiency in conventional agriculture while eliminating negative externalities (Eyhorn et al., 2019). Both include positive and negative aspects, which polarize the debate about sustainable farming practices.

Increased demand for food triggered innovations in agriculture. Development of science and new technologies supported production of high yielding varieties, use of chemical fertilizers, pesticides etc. (Savari, Ebrahimi-Maymand, & Mohammadi-Kanigolzar, 2013). However alongside with innovations applied, water pollution; soil degradation; disturbance of the biological balance of ecosystems; pest resistance; and new pests etc. occurred. Among those, farming sector contributes significantly to major Green House Gasses pollutants (GHGs): CO₂, CH₄, and N₂O (Johnson, Franzluebbers, Weyers, & Reicosky, 2007). According to many studies, agricultural activities contribute to between 10% and 14% of global emissions (Eurostat, 2018; Jantke, Hartmann, Rasche, Blanz, & Schneider, 2020; Smith et al., 2007), mostly from fermentation (methane), synthetic fertilizers (nitrous oxide), and tillage (carbon dioxide) (Field et al., 2012). All segments of agriculture have management options that can reduce agriculture’s environmental footprint (Johnson et al., 2007).

Eyhorn et al. (2019) classified 4 various policy interventions leading to more sustainable agriculture (see Figure 5.1). *Supporting and upscaling transformative systems* (i) is a combination of pull and push factors leading to improved performance. (ii) *Stimulation of demand for more sustainable products* fostered by increased consumer awareness, retail and caterers’ commitments. (iii) *Incentivizing improvements in mainstream systems* via payments to units providing public goods and taxation of farmers for their negative external costs. Such a system should stimulate all farmers to substitute unsustainable practices. (iv) *Raise of legal requirements and industry norms* is a command-and-control pragmatic policy approach, which deals with complex problem. All four intervention types move the bell curve to the right, promoting 3 main pillars or sustainability—economic, social and environmental.

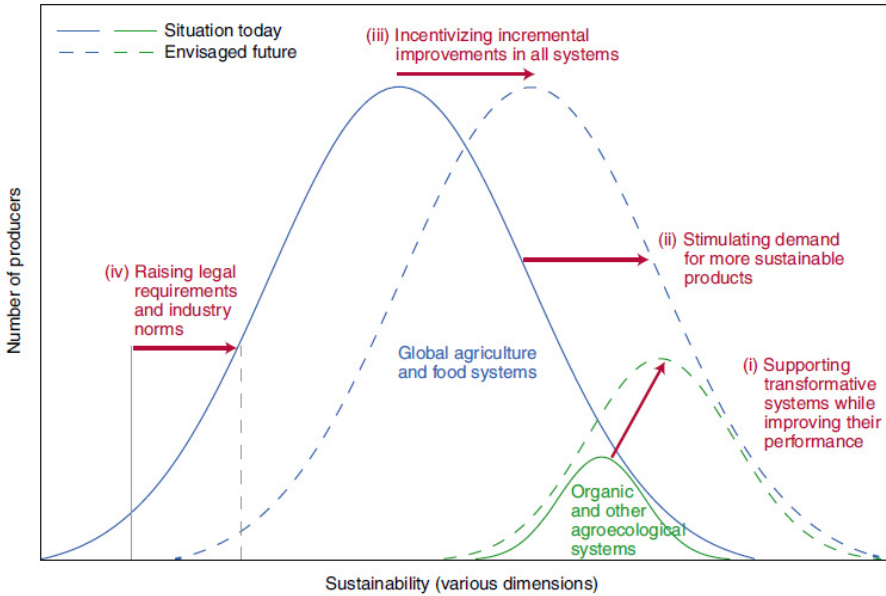


Figure 5.1. Policy interventions to drive sustainability in agriculture

Source: (Eyhorn et al., 2019, p. 253).

The organic production in comparison to other low-input methods is closer to the definition of a sustainable system (Hall, Baker, Franco, & Jolly, 1989). Sustainable development is understood as economic growth that can maintain utility from one generation to the next (Pezzey, 1992), this means sustainable agriculture has to avoid short-sightedness.

International Federation of Organic Agriculture Movements (IFOAM) defines organic agriculture as follows: “Organic Agriculture is a production system that sustains the health of soils, ecosystems, and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic Agriculture combines tradition, innovation, and science to benefit the shared environment and promote fair relationships and good quality of life for all involved” (IFOAM—Organics International, 2005).

Introducing organic agriculture might directly and indirectly contribute to many of 17 Sustainable Development Goals. Eyhorn et al. (2019) names the following targets to be addressed:

- SDG 1: No poverty;
- SDG 2: Zero hunger;
- SDG 3: Good health and wellbeing;
- SDG 6: Clean water and sanitation;

- SDG 12: Responsible consumption and production;
- SDG 13: Climate action;
- SDG 15: Life on land.

Benefits of organic agriculture are summarized by many authors, and they could be filtered into two basic categories: (i) social and economic, and (ii) environmental effects.

Social and economic benefits include higher labour intensity resulting in higher number of employees (Green & Maynard, 2006), literature does not conclude profitability. Haering and Nieberg (2001) concluded that organic and conventional farms have comparable income. Vlačicová and Náglová (2015) concluded that organic winemaking enterprises have higher profitability as well as solvency. On the contrary, according to Offermann and Nieberg (2010) profitability per hectare is generally lower on organic farms as well as material, energy, fertilizers and pesticides costs (Mäder et al., 2002). The costs related to wages and salaries are higher in organic farms (Aulová & Frýdlová, 2012; Offermann & Nieberg, 2010). Compared to conventional farms, organic farms performed greater yield variability. Organic farms thus fit to supply “win-win” strategy for environmental sustainability, while conventional farms fit to a “win-win” strategy for high crop yields promotion (Smith et al., 2019).

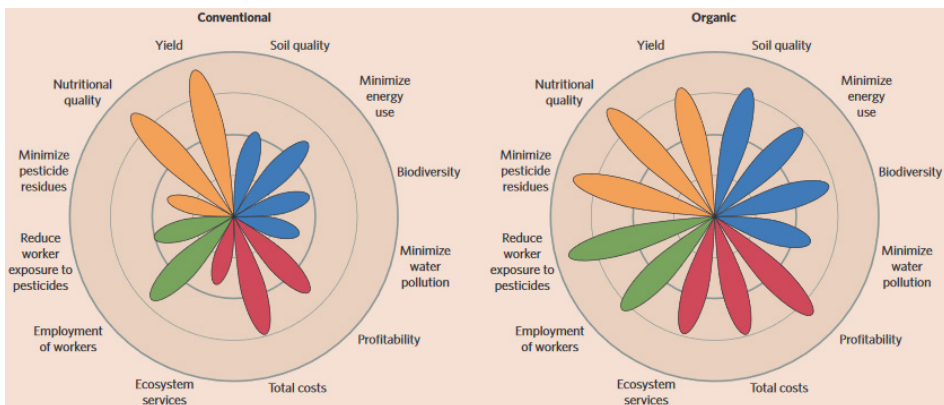


Figure 5.2. Assessment of organic farming relative to conventional farming in the four major areas of sustainability

Source: (Reganold & Wachter, 2016, p. 4).

From the environmental point of view we can assume the following (Häring et al., 2001): higher floral and faunal diversity; better biological activity, lower erosion probability, lower risk of nitrate leaching, lower GHGs emission; better nutrient, water and energy use. Human health is impacted by lower pesticide and antibiotics residuals. Positive effects are also observed in biotic abundance, biotic richness and soil carbon

(Smith et al., 2019). Both environmental and socioeconomic aspects are depicted in Figure 5.2. The four circles representing 25, 50, 75 and 100%. Orange petals represent areas of production; blue petals represent areas of environmental sustainability; red petals represent areas of economic sustainability; green petals represent areas of wellbeing. The length of organic petals illustrates that organic farming systems are better balanced from sustainable point of view (Reganold & Wachter, 2016).

The European Union farming sector is important from the three basic perspectives: food production, rural community development and environmentally sustainable farming. There are about 10 million farms employing more than 22 million people. In the countryside many more jobs are linked to farming in upstream (machinery, buildings, fuel, fertilizers) and downstream sectors (preparing, processing, and packaging food, as well as in food storage, transport and retailing). Prudent usage of natural resources allows us to maintain quality of life and food production. Farming is unlike other businesses and has the following specifics: i) farmers' income is around 40% lower compared to non-agricultural income; ii) agriculture depends more on the weather and the climate than many other sectors; iii) there is an inevitable time gap between consumer demand and farmers being able to supply (European Commission, 2020). Farming specifics and expectations to produce public goods contributed to the specially designed policy targeted on multifunctionality of agriculture, implementing a number of Community objectives beyond the traditional concept of functions of agriculture related to food production (Weiss & Bitkowska, 2014). The concept of Common Agricultural Policy aims at:

- supporting farmers and improving agricultural productivity, ensuring a stable supply of affordable food;
- safeguarding European Union farmers to make a reasonable living;
- helping tackle climate change and the sustainable management of natural resources;
- maintaining rural areas and landscapes across the EU;
- keeping the rural economy alive by promoting jobs in farming, agri-foods industries and associated sectors (European Commission, 2020).

The EU support is targeted to:

- support income through direct payments. It shall ensure income stability, and remunerates farmers for environmentally friendly farming and delivering public goods not normally paid for by the markets;
- market measures deal with difficult market situations such as a sudden drop in demand due to a health scare, or a fall in prices as a result of a temporary oversupply on the market;
- rural development measures with national and regional programmes to address the specific needs and challenges facing rural areas.

Those 3 support areas are financed by two main funds—the European Agricultural and Guarantee Fund and the European Agricultural Fund for Rural Development.

Annual support to agriculture reaches about 60 bn EUR, sharing roughly between 35 and 38% of the European Budget (European Commission, 2020). However, after Brexit and facing problems related to the Covid-19 pandemics, Agricultural support budget is expected to share not more than 30% for 2021–2027 budgetary perspective.

Table 5.1. Basic indicators of organic agriculture, Europe

| | EU28: 2013 | EU28: 2018 | Top 3 EU countries: 2018 |
|-----------------------------------|-------------|-------------|--|
| Organic farmland Out of which: | 10.2 m ha | 13.8 m ha | Spain (2.2 mln ha) France (2.0 mln ha) Italy (2.0 mln ha) |
| – Arable land | 3.9 m ha | 6.1 m ha | France, Italy, Germany |
| – Permanent grassland | 4.63 m ha | 6 m ha | Spain, Germany, France |
| – Permanent crops | 1.16 m ha | 1.5 m ha | Spain, Italy, France |
| Organic share of total farmland | 5.7% | 7.7% | Austria (24.7%) Estonia (21.6%) Sweden (19.9%) |
| Retail sales | 22.2 bn EUR | 37.4 bn EUR | Germany (10.9 bn EUR) France (9.1 bn EUR) Italy (3.5 bn EUR) |
| Per capita consumption [euros] | 43.8 EUR | 76 EUR | Denmark (312 EUR) Sweden (231 EUR) Luxembourg (221 EUR) |

Source: The authors' own elaboration based on (Willer, Schlatter, Trávníček, Kemper, & Lernoud, 2020, p. 226; Willer & Lernoud, 2015, pp. 183–213).

The European Union supports organic farming as part of its environmentally oriented agricultural policy. The EU allows farms to make own decision on transformation related to organic farming. Total acreage under organic practices has been growing constantly over the last 3 decades and increased from about 300 thousand hectares up to 13.8 mln hectares (Willer et al., 2020; Willer & Lernoud, 2015), representing about 330 thousand producers and 7.7% of total EU farmland. In 2018, the largest amount of land dedicated to organic production is found in Spain, France and Italy where it represents about 45% of organic acreage of the EU. The largest land share dedicated to organic farming is found in Lichtenstein, Austria and Estonia (see Table 5.1). Also, in retail, the 3 most important markets have significant share in total demand for organic products. Out of the EUs 37.4 bn EUR organic sales, German, France and Italian consumers contribute about 60%. Average spending of the EU consumer was counted to be about 76 EUR in 2018, compared to 43.8 EUR in 2013. The importance of organic farming on total EU production is depicted in Table 5.2.

Significance of the EU organic market attracts attention of organic processors from the EU (72,000) and out of the EU (24,000) (Willer et al., 2020). Recent production and market trends show the importance that organics has gained over

the last decade. Production increased by about 70%, while consumption of organic products more than doubled. The EU accounts for about 37% of global organic food and drink market (37.4 bn EUR in 2018). Current EU legislation does not require the same rules to be applied on imported organic goods. Thus after 2021 the EU will introduce new legislation on organic production. Regulation will harmonize rules for all actors operating on organic market, imported goods will have to comply with the same production and control rules as applied in the EU.

Table 5.2. Share of organic production in the EU, 2018

| Item | Unit | % | Item | Unit | % |
|--------------|------|------|-------------------|--------|------|
| Cereals | ha | 3.9 | Nuts | ha | 26 |
| Dry pulses | ha | 18.5 | Olives | ha | 10 |
| Green fodder | ha | 9.3* | Temperate fruit | ha | 8.5 |
| Oilseeds | ha | 2.5 | Subtropical fruit | ha | 11.4 |
| Root crops | ha | 1.2 | Bovine animals | heads | 5.2 |
| Vegetables | ha | 7.2 | Sheep | heads | 5 |
| Berries | ha | 22.2 | Pigs | heads | 0.7 |
| Citrus fruit | ha | 10.2 | Poultry | heads | 3.3 |
| Grapes | ha | 11.1 | Milk | liters | 5.3 |

* Share of permanent grassland.

Source: The authors' own elaboration based on the Willer et al., (2020, pp. 238–242);

5.2. Organic farming development in the Czech Republic

The first organic farms operating in the Czech Republic/Czechoslovakia were observed in 1990. Just after Velvet Revolution (1989), 3 farms were registered as organic and their acreage reached 480 hectares. Since then the positive development is observed. In 2018, 4,606 organic farms managed almost 540 thousand hectares, i.e., 14% of utilized agricultural land (UAA). The increase of land converted into organic is highly correlated to support provided (see Table 5.3).

The first financial support measures were released between 1990 and 1992. However, the first comprehensive subsidy program was the one supporting non-productive functions of agriculture being in force between 1998 and 2003. The first comprehensive support resulted in significant increase of acreage. Between 1997 and 1998 the acreage of farmland under Organic agriculture more than doubled from 20 to 71 thousand hectares (see Figure 5.3). After joining the European Union in 2004, support for organic farming was included in the so-called agri-environmental measures. Since 2007, support for organic farmers has been covered within Axis II financed from European Agricultural Fund for Rural Development. As mentioned above,

logics of Common Agricultural Policy is to compensate the economic losses caused by regulated organic farming system. The payment is provided for the area of organically farmed land with differentiation according to the use of areas—crops cultivated.

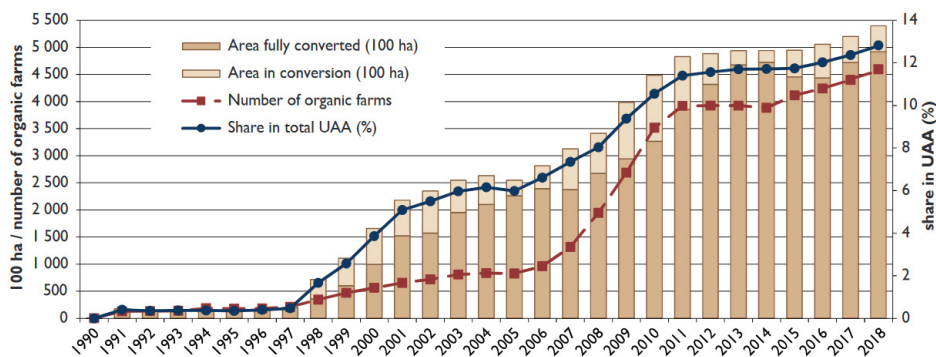


Figure 5.3. Development in total OF acreage, number of organic farms and share of total agricultural land.

Source: (Ministry of Agriculture of the Czech Republic, 2019, p. 58).

Table 5.3. Total value of support provided to organic farms, Czech Republic

| Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Million EUR | 1.30 | 2.28 | 2.50 | 4.93 | 6.85 | 7.26 | 9.75 | 10.24 | 10.59 | 19.45 |
| 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
| 27.75 | 37.43 | 45.99 | 50.43 | 50.84 | 48.59 | 46.20 | 48.46 | 49.28 | 52.83 | 53.94 |

Source: The authors' own elaboration based on the (Ministry of Agriculture of the Czech Republic, 2019).

Total support for organic farms to be distributed increased over time. As seen in Table 5.3, in 1998 total support sourced by organic farms exceeded 1 mln EUR. After the EU accession, continuous increase in the number of farms and their acreage resulted in increased value of support provided. In 2010 total value of support exceeded 50 mln EUR and since then it has increased only slightly. The values expressed in Table 5.3 do not accurately present continuous increase, but presented values are influenced by volatility of Czech currency. In 2018, the Ministry paid out aid in the amount of almost 54 mln EUR, while organic farming produced a gross volume of agricultural production of more 253.5 mln EUR, which represents a share of total agricultural production in the Czech Republic of almost 5% (Ministry of Agriculture of the Czech Republic, 2019).

As seen above (Table 5.1), arable land and permanent grassland have comparable share in the EU. Both land categories cover about 40% of land used under organic production. However, in the Czech Republic (Table 5.4) majority of organically managed land is permanent grassland representing more than 80% of organic

acreage located mostly in mountainous border regions. Other land types under organic management have low significance. Positive trend is observed among arable land as its share increased from 8 to 15% between 2005 and 2018 and total acreage almost quadrupled. Distribution of land types informs about farming management—organic farms are focused on extensive farming practices rather than on intensive production. However, increasing share of arable land is a positive sign for further increased intensive farming practices. An average organic farm manages about 117 hectares, but the value is continuously decreasing.

Table 5.4. Land types under organic management, Czech Republic

| Land use Czech Republic | 2005 | 2018 | 2005 | 2018 |
|-------------------------|----------|---------|-----------|-------|
| | Hectares | | Share (%) | |
| Arable land | 20,766 | 80,939 | 8.14 | 15.04 |
| Permanent grassland | 209,956 | 435,287 | 82.34 | 80.87 |
| Permanent crops | 820 | 6,164 | 0.32 | 1.15 |
| Other | 23,440 | 15,834 | 9.19 | 2.94 |

Source: The authors' own elaboration based on the (Ministry of Agriculture of the Czech Republic, 2019).

Table 5.5. Organic food—indicators (2007–2017), Czech Republic

| | 07–09 average | 10–12 average | 2013 | 2014 | 2015 | 2016 | 2017 | AAGR |
|---|---------------|---------------|-------|-------|-------|-------|-------|--------|
| Total turnover with organic food, incl. exports (mln EUR) | 67.7 | 89.9 | 104.7 | 115.9 | 136.7 | 155.0 | 216.5 | 15.8% |
| Organic food consumption (mln EUR) | 59.8 | 67.3 | 75.1 | 73.4 | 82.5 | 94.3 | 126.5 | 10.5% |
| Consumption per person per year (EUR) | 5.8 | 6.4 | 7.1 | 6.9 | 7.8 | 8.9 | 11.9 | 10.1% |
| Share in organic food turnover according to outlet (%) | | | | | | | | |
| Supermarkets / hypermarkets | 70.2 | 68.6 | 67 | 57.4 | 60.9 | 61.8 | 58 | -1.5% |
| Independent retail | 2.3 | 1.3 | 1.6 | 1.7 | 4.2 | 2.9 | 3.0 | 1.8% |
| Farm gate sale, direct sale | 2.4 | 4.9 | 8.9 | 6.7 | 7 | 7.3 | 5.4 | 10.4% |
| Gastronomy | 0.6 | 0.8 | 1.4 | 2.9 | 3.2 | 3.4 | 3.0 | 19.6% |
| E-commerce | × | × | × | 3.4 | 7.8 | 6.7 | 14.1 | 60.7%* |
| Share of product category on total consumption (%) | | | | | | | | |
| Meat and meat products | 7.0 | 8.4 | 6.9 | 8.2 | 6.9 | 5.1 | 5.9 | -0.5% |
| Fruit and vegetable | 7.5 | 12.7 | 16.1 | 13.7 | 12.6 | 21.3 | 22.5 | 15.3% |
| Milk and dairy products | 21.4 | 21.5 | 18.2 | 22.0 | 20.0 | 23.0 | 17.5 | -1.8% |
| Mill and starch products | 6.1 | 9.5 | 11.7 | 8.2 | 7.5 | 4.8 | 4.9 | -2.0% |
| Bakery, confectionery and other flour products | 4.9 | 9.0 | 9.2 | 9.4 | 7.3 | 6.2 | 5.9 | 13.9% |
| Other processed foods | 43.7 | 34.1 | 33 | 33 | 37.1 | 33.2 | 36.4 | -3.0% |

* Growth rate of e-commerce measured between 2014 and 2017.

Source: The authors' own elaboration based on the (Ministry of Agriculture of the Czech Republic, 2019).

The share of organic food consumption in the Czech Republic is around 1.2%. While the market in Denmark was about 13.3%, Sweden and Austria were close to 9%, and France, Germany and Netherlands close to 5%. This only presents the market potential of organic value-added production. As observed below (Table 5.6), certain commodities do not have the potential yet to be sold as organic (goat, lamb, beef, grapes, leaf vegetable, oilseed, etc.) while other are already well accepted and demanded by the consumers (eggs, cow milk, honey). Also, as presented in Table 5.5, there is an increasing trend in organic *fruits and vegetable* consumption (+15% annually) and in *bakery, confectionery and other flour products* (about 14% annual increase). We observe the potential for increasing sales in other marketing channels, not only in supermarkets and hypermarkets. While between 2007 and 2009 the most of organic products were sold in largest outlets, over the decade later, their importance declined. Increasing the importance of organic food outlet is expected to be observed in gastronomy, independent retail, e-commerce and direct farmgate sales.

Table 5.6. Utilization of organic food, 2017

| | Sold as organic | | Sold as organic |
|------------------------|-----------------|-----------|-----------------|
| Cereals | 80% | Pears | 74% |
| Legumes | 57% | Grapes | 46% |
| Potatoes | 60% | Beef meat | 41% |
| Oilseeds | 49% | Lamb | 24% |
| Herbs | 57% | Goat meat | 3% |
| Cruciferous vegetables | 35% | Pork | 69% |
| Leaf vegetables | 51% | Poultry | 88% |
| Fruit vegetable | 85% | Cow milk | 95% |
| Root vegetables | 98% | Eggs | 95% |
| Apples | 58% | Honey | 100% |

Source: The authors' own elaboration based on the (Ministry of Agriculture of the Czech Republic, 2019).

Insufficient utilization of organic commodities, in many cases processed and sold as conventional products, is mostly caused by the lack of processing capacities and still lower demand. Comparing average Czech per capita consumption (about 11 EUR/year) with EU average (76 EUR per capita), Czech market is still below its potential. Also, the fact, that organic producers are able to sell part of organically produced crops and livestock for conventional prices and still be profitable (in 2016 96% and in 2017 95% of organic farms were profitable), shows its further potential.

Profitability of organic farms is mostly given by positive support mostly provided from Rural Development Funds (presented in Table 5.7). Those are being provided to farms certified as organic and to farms being in transition period from conventional farming to organic farming (2 years for arable lands, 3 years for permanent crops like hops, vineyards, orchards). The difference in supportive values

is mostly explained by labour and technological requirements related to organic agriculture. Permanent crops are supported the most, while grasslands and fallow lands are supported the least.

Table 5.7. Supporting organic farming, per hectare values, Czech Republic, 2018

| Commodity type | | Transitional period (EUR/ha) | Organic farming (EUR/ha) |
|---|---------------------|------------------------------|--------------------------|
| | Permanent grassland | 84 | 83 |
| Arable land | Vegetables or herbs | 536 | 466 |
| | Strawberry | 669 | 583 |
| | Grass for seed | 265 | 180 |
| | Other crops | 245 | 180 |
| | Grassland | 79 | 69 |
| | Fallow land | 34 | 29 |
| Permanent crops | Orchard—intensive | 825 | 779 |
| | Orchard—other | 419 | 417 |
| | Vineyard | 900 | 845 |
| | Hops | 900 | 845 |
| Another permanent culture with an ecologically significant element of landscaping | | 165 | 165 |

Source: The authors' own elaboration based on the (Ministry of Agriculture of the Czech Republic, 2019).

Other supportive measures are related to innovations, diversification of activities, supporting rural tourism, young farmers, and cooperation among farmers to share machines and facilities (Table 5.8). In all those cases organic farmers are given bonus for project evaluation. This bonus increases chances for success in project selection process. Financed projects submitted by organic farms represented about 32% of all financed projects, granted totally more than 28 mln EUR.

Table 5.8. Additional project support provided, Czech Republic, 2018

| | No. of projects | EUR (mln) |
|---|-----------------|-----------|
| Investment in agricultural holdings | 568 | 14.63 |
| Processing and marketing of agricultural products | 61 | 2.57 |
| Aid for setting up of young farmers | 100 | 4.68 |
| Investments in non-agricultural activities | 49 | 2.42 |
| Support for rural tourism | 27 | 2.68 |
| Cooperation for development of new products, processes and technologies | 1 | 0.98 |
| Cooperation among small operators in organizing joint work processes and sharing facilities | 4 | 0.54 |
| Total | 810 | 28.48 |

Source: The authors' own elaboration based on the (Ministry of Agriculture of the Czech Republic, 2019).

Economy of the Czech family organic farm is described in detail in the Table 5.9, also compared with the Czech average family conventional farm. As presented above, organic farms have certain specifics, which are also confirmed by the authors below. At first, in the Czech Republic, organic farms are larger and also own more land. However, due to their extensive orientation (see Table 5.4, and also confirmed by the value of land in data presented by Institute of Agricultural Economics and Information (2020b, 2020a)), per hectare production is much lower (about a half of conventional). On the contrary, lower production is balanced by lower costs of production, where organic farms mostly do not have to buy fertilizers and plant protection products, spend also less on seeds, feed and labour. In general, Czech farms eliminated livestock production to great extent, while in organic farming such a trend is not observed. In organic farming, combination of livestock and crop production is balanced. Organic farms, also as presented above, are eligible to receive higher number of operating grants and subsidies. From the economy point of view, conventional farms are able to achieve balance between income and production (+9 EUR/ha), while organic farms are fully dependent on public support. Without support, farms would be in loss of 182 EUR from each hectare. But subsidies are present and in general economic status of organic farms in the Czech Republic is rather successful. They are not much indebted, returns on sales (ROS) is calculated to be about 80%, while conventional family farms reach 40%.

Table 5.9. Selected information on production, costs and income of conventional and organic average family farm, Czech Republic, 2018

| Unit | Unit | Conventional | Organic |
|--------------------------------------|---------|--------------|---------|
| Utilized agricultural area | ha/farm | 64.9 | 83.9 |
| Utilized leased agricultural land | % | 75.9 | 55.5 |
| Total production | EUR/ha | 1,053.2 | 564.4 |
| Total crop production | EUR/ha | 731.2 | 215.8 |
| Total livestock production | EUR/ha | 226.2 | 296.1 |
| Other productions | EUR/ha | 95.8 | 52.5 |
| Total cost | EUR/ha | 1,074.1 | 792.2 |
| Direct costs | EUR/ha | 425.0 | 267.8 |
| Other direct living costs production | EUR/ha | 24.4 | 37.5 |
| Other material costs | EUR/ha | 324.7 | 262.2 |
| Depreciation | EUR/ha | 191.0 | 167.2 |
| External factors | EUR/ha | 133.5 | 95.0 |
| Total operating grants and subsidies | EUR/ha | 426.2 | 629.9 |
| Taxes and fees | EUR/ha | 11.0 | 7.4 |
| Investment subsidies | EUR/ha | 41.4 | 52.8 |
| Gross value added | EUR/ha | 718.6 | 656.9 |
| Net value added | EUR/ha | 527.7 | 489.7 |
| Income from agricultural activity | EUR/ha | 435.6 | 447.6 |

| Unit | Unit | Conventional | Organic |
|---|---------|--------------|----------|
| Net value added / AWU | EUR/AWU | 18,389.7 | 19,755.7 |
| Income from agricultural activity / FWU | EUR/FWU | 18,661.8 | 21,345.0 |
| Total assets | EUR/ha | 3,653.9 | 3,182.4 |
| Liabilities | EUR/ha | 389.4 | 364.5 |
| Equity | EUR/ha | 3,264.5 | 2,817.8 |

Source: The authors' own elaboration based on the (Institute of Agricultural Economics and Information, 2020a).

Yet at the end of this chapter, let us summarize the potential of Organic Agriculture to be a driver of sustainable and innovative farming. As mentioned above, farming and sustainability is closely related. Land management, bio-diversity and soil degradation are often correlated with farming practices. Thus, having sustainable agriculture requires transformation of farming practices, and organic farming belongs among potential directions. For over 3 decades, organic farming gained on importance, market share and popularity among consumers, producers and policymakers. Health concerns, public support and market potential convinced farmers to introduce non-conventional farming practices. On the contrary, organic farming is often criticized for lower production potential, higher pricing and labour intensity. But in reality, those aspects are seen as challenges, which international community will need to meet. Innovative practices will be required to increase productivity without genetic modifications, practices have to be invented to tackle pests and weeds, and many others.

In the Czech Republic, and possibly in many other eastern European countries, organic production still has potential for further growth. As proven above, extensive farming focused on pastures and cattle production is possibly not the perfect path. A lot of produced beef is not being sold as organic, as market is oversupplied. On the contrary we observe slow but increasing trend in crop production, which has the same significance in the EU as extensive pastures. It is obvious that Czech consumers still do not spend as much on organic food as consumers in western European countries, but rapid future increase is expected. Farming newcomers still can find their niche market and succeed. Transformation from conventional to organic practices is simplified by available subsidies and grants.

5.3. Case study—Organic farm in Milinov, Czech Republic

The history of the farm (Farma Moulisových) begins with Josef Prokeš in 1902. After World War I, he returned to the farm and devoted all his energy to the farm restoration and development. In 1931, he handed over the farm to his son František, who married Bohumila Moulisová, a predecessor of today's owners (Farma Moulisových, 2021).

Socialist collectivization also occurred in village Milín's. Despite all the disagreement, František Moulis had to hand over the animals and fields to the cooperative in which he worked until the end of his life. In 1976, František's nephew Jaroslav Moulis and his wife Boženka came to the farm. After the fall of communism regime, he resumed private farming, taking back the land and cows for milk production from a collectivized cooperative. He started to make fundamental changes on the farm. In 2001, he stopped breeding dairy cows and, on the contrary, focused on the grazing method of breeding cows for meat. In the autumn of 2001, Jaroslav suddenly suffered a heart attack, and his work was continued by his youngest son Pavel Moulis, farmer and director of the farm.

Already in 2002, Pavel abolished the time-consuming management of arable land, which he transferred into permanent grasslands. He followed his father's path of raising cows without marketable milk production and gradually expanded the land from the original 22 hectares to about 150 hectares. In 2004, the farm became certified organic, and in the same year, the conversion of the barn into guest rooms began. The farm breeds about 35 cows of the basic herd, i.e., about 100 cattle stock. In 2017, Farma Moulisových was awarded the Czech Agritourism Farm of the year.

Since the European money started coming to the Czech Republic, the owners have been trying to use the most of EU investment subsidies, i.e., subsidies from the Rural Development Program.

Subsidies helped them to acquire the mechanical equipment, enabled to reconstruct the stable for breeding beef cows, build a boarding house and develop new products the farm offers. The farm started to keep horse—some own and some have their owners in the cities. As presented in Table 10, Moulis family farm still tries to use the investment support measures focused on farm investments and agritourism. Among those, the farm receives support for environmentally friendly agriculture, support for organic farming, direct payments (SAPS, greening, etc.) and support for meat-type calf.

Table 5.10. Received investment support (EUR) from Rural Development Programme (2017–2020)

| Measure | 2017 | 2018 | 2019 |
|-------------------------------------|---------|--------|---------|
| Investment in agricultural holdings | 129,186 | 18,307 | 19,478 |
| Support for rural tourism | N/A | N/A | 118,377 |

Source: The authors' own elaboration based on the National Paying Agency (Statní zemědělský a intervenční fond, 2020).

Today, the farm stands on three pillars—agriculture, organic production (beef) and agritourism. Agritourism is not based on subsidies, while providing a relatively stable income.

The farm offers the following products: vegetables, fruits, milk, meat, eggs, seeds, herbs, spices, flowers, feed, grain, nuts. But the farm mainly specializes in cattle breeding, meat breed Simmental. The meat is processed into vacuum packages and the sale takes place in the form of an ordering system in the e-shop for registered customers once a month. During the coronavirus crisis, about 400 customers welcomed the possibility to be delivered products to their place of residence. The crisis has increased sales by 20 percent compared to normal.

The non-agricultural pillar includes accommodation associated with adventure tourism. The farm specializes in children's pedagogy and practically introduces visitors to life on a farmstead. The weekend offers sleeping in the hay in the barn; children can prepare almost all their meals themselves, experience cow-milking simulator, beat the grain, which they grind into flour, bake bread, etc. They can also ride a horse, learn a little about livestock, learn what organic farming is. The results of the Moulis family's efforts were reflected in the farm's popularity. Usually in May and June, a bus full of children visits the farm every day. In addition to these activities for children, the farm offers the organization of seminars, a festival (Hay Festival), trainings, corporate parties, family celebrations, weddings, etc. Smart investments, high-quality service and products together with a mixture of public support increases economic sustainability and viability of Moulis farm.

The development of the farm helped the whole village. Not only has the whole character of the village improved through investments in buildings that were otherwise in a desolate state, but also visitors coming to the farm help to maintain for example the local pub and shop. All the activity of the Moulis Farm has another dimension. Organic farming is gentle on the soil and landscape. Applied practices reduce the risk of erosion, retain water in the landscape and improve the biodiversity of the landscape around the farm, thus contributing to the creation of public goods that benefit all residents and visitors to the region.

5.4. Final remarks

Finally, organic food has a big growth potential in consumer demand. Once thought to be the preserve of the wealthy or eco-eccentrics, organic food is going mainstream with many people from across the spectrum wishing to purchase organic food (Pettinger, 2019).

Organic farming avoids the use of artificial fertilizers and pesticides but relies on more traditional methods of fertilization and pest control, such as crop rotation, barrier nets and natural pest control. It is minimizing external costs, available resources are managed more efficiently, soil and environment are better utilized and protected etc. On the other hand, there are also several negatives—due to the public incentives some organic farms could be purpose-driven, i.e., they would not

be established otherwise), organic farming is suffering because of yields variability/fluctuation, it is also labour and land intensive in comparison to conventional agriculture, organic food is rather expensive, and it is still considered as luxury product.

Despite the fact that the demand for organic food is growing strongly, there is only a limited number of organic farms all around the world. Organic farming has been representing only minor market niche. Although the volume of global demand is steadily increasing, the demand of individuals is extremely low. Individual consumers consider organic food demand only as supplement. The unit price of organic products is considered as rather expensive. For many people, there is no rational difference between organic food quality and conventional food quality.

Many people consider organic farming as only some kind of lifestyle, as new trend. Consumers consider organic products as special or even exclusive. But organic farming must be understood as New Innovative Approach to sustainable farming/sustainable human society activity. Farming is a traditional and extremely important activity. It feeds almost 8 billion people, and the number of consumers is constantly increasing. Agriculture has affects not only stability of human society, but because of its massive acreage it has impact on the environment, biodiversity, etc. Agriculture is seeking the possibility to find compromise between the needs of current human society, the needs of the future generations and the needs of the environment.

Conventional agriculture provides enough food for global population and allowed civilization to increase in size of population. On the contrary, its current way of performance is on the edge of long-term sustainability. There before it is necessary to find some alternative approaches which could cover the human needs and long-term living environment sustainability. Organic farming is considered as one of those alternatives. Maybe, it is not the best one, but it is relevant for balancing environmental and human society issues.

Even more, organic farming is not only about agricultural production itself, but it is also connected to many externalities. Their character could be considered both positive and negative. But the prevalence of positive ones is highlighted. Especially, value of positive externalities' must be understood as extremely important factor determining the future of organic farming. Externalities are seen as by side effects related to organic farming and they are considered to be the key for long-term sustainability of agricultural activities (with respect to available level of technology).

Organic farming is not a solution to current society issues, but it could be considered as innovative alternative approach for future generations.

Questions / tasks

1. What are the problems related to conventional agriculture? Which problems address organic farming?

2. How has organic farming developed in EU over the last 30 years? What rationale stands behind financial support for organic farming?
3. Do you think organic farming is sustainable? Why?
4. What is the situation of organic farming in your country? What support is available?
5. Shall support be as important source of income for farmers as it is in the Czech case?
6. What might be the future of the case farm? Might the farm face some challenges, problems or opportunities? How can any business prepare for unexpected circumstances?

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6.

SERVICE AS AN INNOVATION



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Abstract: Service innovations make life of customers easier during or after use of company's products or services. They are coming in different forms. Companies create strong connections with their customers by offering different helps, consultations or new experience. Service innovations make customers' experiences stronger and strengthen their gratitude. This chapter provides two case studies. The first case study is the famous company Whirlpool, which made service innovation by implementing CRM system. This enabled stronger straight relationship with their final customers and expansion of incomes. The second case study is an innovative way of selling old antiquarian books in the Czech company Knihobot. This innovation enables fast preparation of books for selling and introduces automation into a new area.

Keywords: customer experience, service innovation, sustainability.

6.1. Introduction

In recent years, services have become the most important sector of the economy of most developed countries in the world. This was not the case in the past, as the main goal was production. Services were seen as something that was necessary but did not bring much added value. Innovations are designed and created so that the customer is more satisfied, his purchasing process is simpler and the final experience of the product or service is better. However, a large number of innovation studies still lack a specific focus on service innovation. Most studies still deal with technological innovations in connection with the manufacturing sector. As a result, it is very difficult to fully appreciate the benefits that service innovation offers. At the same time, services make it possible to maintain the desired level of productivity or achieve higher productivity of the overall output. The main goal of this chapter is to describe service as an innovation with practical approach. To achieve this goal, two case studies are presented.

6.2. Theoretical background

Service innovation is defined as the introduction of novel ideas that provide new ways of delivering a benefit, new service concepts or new service business models through continuous operational improvement, technology, investment in employee performance, or management of the customer experience (Verma et al., 2008). The complexity of service innovation is often underestimated. Moreover, sufficient effort is usually not made to properly target service innovation implementation. Another weakness is low awareness of service innovation importance and the lack of knowledge, which the innovation has on the effectiveness of company's management (Hertog, 2010).

One of the main challenges of the service innovation is its general and outdated understanding of the general public—academic public, statistics, politicians, managers and otherwise involved stakeholders (Lendel, Hittmar, & Siantova, 2015). Some companies still perceive service innovations and related components biased and out of date, especially from the point of view of technological innovations in the manufacturing sector, where innovations are the result of research and testing of the work of the Research and Development Department. Textbooks also devote more time to the issue of technical and technological innovations (Klimova, 2006). Similarly, most definitions describing innovation are dominated by articles of technological innovations only (Vargo & Lusch, 2004).

Services and their innovations are very adaptable to change. It is often the subject of changes in the distribution of the service, contact with the customer or, for

example, quality control of the offered service (Macintyre & Parry, 2011). In fact, most innovations result from a combination of minor and major changes and their adaptation to an existing service (Brentani, 2001; Oke, 2007).

Service innovation processes are not linear. They often involve different activities in different departments across the company and sometimes can be extended to the company's external environment. Mostly these are activities related to strategy, company development, marketing or communication with customers. However, it does not matter whether the company innovates the main processes or only the supporting ones; it is important that it always has in mind the creation of value and benefit for its customers (Klimova, 2006). Service innovations and their processes are difficult to implement, manage and analyse, because the tools for implementing, managing and analysing innovations are primarily created for technological innovations in the manufacturing sector (Hertog, 2010).

Cunningham (2007) adds, that due to the growing strength of the service sector in recent years, the topic and knowledge of service innovation and its processes is also growing. Hertog and Rublacaba (2010) confirm that the topic of service innovation is gaining momentum and that new models and statistical indicators on service innovation are being increasingly introduced. And with each passing year more companies are trying to manage and streamline service innovation (Hertog & Rublacaba, 2010).

The nature of services may explain the limited research that has explored innovation and its implementation. Labour intensity, high variability of delivery, coproduction with the consumer, intangibility and the perishability or time sensitivity of services make innovations in services substantially different in type and in adoption processes from the innovations in traditional manufacturing settings (Fitzsimmons & Fitzsimmons, 2004; Johnston & Clark, 2008).

“Service can be the most striking and prominent part of the customer experience, or an invisible safety net that customers sense but never see. Common examples of service innovations include product use enhancements, maintenance plans, customer support, information and education, warranties, and guarantees” (Keeley, Walters, Pikkell, & Quinn, 2013).

In this chapter you can find two case studies from Czech Republic, which map two different service innovations. The first company is a manufacturer, that innovates customer service by implementing new CRM system and several new processes around it (LLP CRM, 2020). This innovation is an example of product use enhancements, offer of warranties and guarantees. The second company's case study is an old-book seller, making innovations in internal processes of services and selling activities. This innovation is in the area of information and education. Both types of innovations are increasingly delivered through electronic interfaces, remote communications, automated technologies, and other impersonal means.

6.3. Case study of Whirlpool Czech Republic

Whirlpool Corporation is an American multinational manufacturer and marketer of home appliances, headquartered in Michigan, United States. The Fortune 500 (Fortune 500—Whirlpool, 2020) company has annual revenue of approximately USD 21 bn, 92,000 employees, and more than 70 manufacturing and technology research centres around the world. As company claims “We’ve always been a company of innovators... we make sure our innovation is purposeful— a feature that will make our consumer’s life easier. It’s a unique approach to products, collaborations and services that create sustained value” (Whirlpool webpages).

Whirlpool entered the Czech market in November 1991. Manufacturers in the market of white goods usually sell their products through distributors and specialized retailers of electrical appliances. They rarely get direct contact with the customer, usually if the customer needs to repair the appliance. However, Whirlpool also offers its customers several additional services, such as the very popular extended warranty, detergents, etc. Thanks to this, the company gains tens of thousands of direct contacts to its end customers every year.

In 2011, Whirlpool in the Czech Republic decided to start using direct online marketing to end customers. For example, a customer who buys a new washing machine and takes advantage of the extended warranty would receive a special offer for a dryer or detergent. The owner of a dishwasher with an extended warranty, which is just coming to an expiration date, would again receive an offer from Whirlpool with a new dishwasher and clear information on what new features are now available in Whirlpool dishwashers. However, in order for something similar to be possible, the company needed a quality CRM (*customer relationship management*) system that could process, segment and maintain customer data.

Until 2011, the company had manually processed customer data and spreadsheets in Excel. Although they provided almost no user comfort, it was still possible to work with them relatively efficiently with units of a thousand records. However, with the growing popularity of the extended warranty and with a greater emphasis on direct contact with end customers, the number of records began to grow by tens of thousands per year.

6.3.1. Whirlpool: Results and solutions

The company therefore tried to use a simple and free CRM system. However, this free system only allowed a very basic segmentation of customers and, although, it supported the distribution of newsletters, it offered no control at all as to whether the e-mail addresses used were valid. The system also did not provide information on what exactly the recipient of the newsletter was interested in on the company’s

website. If the server received an error message about a non-existent e-mail address, the system could not pass it to the operator.

At the beginning of 2012, therefore, the company decided to start looking for a professional CRM system. Whirlpool in the Czech Republic also began planning to launch its own e-shop, which would be associated with a further radical increase in the number of customer records.

Whirlpool chose Microsoft Dynamics CRM Online in 2012. The results brought the possibility of detailed customer segmentation and thus better targeting of newsletters. Clicks have increased by 30% compared to previous numbers. In addition, Microsoft Dynamics CRM Online brought the opportunity to monitor the subsequent activity of customers on the company's website and thus their interest in individual products. The results from the first weeks of operation in the marketing department of the Czech branch of Whirlpool were so convincing that the company decided to expand the system with additional functions and to other departments.

The next step was the full automation of the extended warranty service system. The customer either has a voucher available, which can be registered on the company's website, and receives an extended warranty free of charge, or they can buy an extended warranty directly from Whirlpool. An extension of the warranty can be requested both by sending the relevant form enclosed with Whirlpool products and by filling in its online version on the company's website. Previously, the whole process worked by entering the obtained data manually into the system, manually writing a certificate confirming the extension of the warranty, which, if necessary, the customer would show to an authorized service technician, and manually inserted this certificate in a mail envelope. The direct costs of one extended warranty issued thus amounted to CZK 32 (approx. 1,2 EUR). If the customer fills out the web form, everything will take place fully automatically-checking the accuracy of the entered data, pairing with payment, transferring customer data to the system, issuing an extended warranty certificate in PDF format and sending it to the customer by e-mail. It has also been a significant simplification for the paper form, because the service worker enters data into only one system and the certificate is generated automatically. Whirlpool will save tens of thousands every month in the administration of extended guarantees. Only thanks to this, originally unplanned functionality, will Microsoft Dynamics CRM Online Whirlpool pay for itself within three months.

However, a very important benefit is the fact that thanks to the implementation of new CRM system, customer data has been cleaned up and that the company is fully prepared for a radical increase in customer records, which will be associated with launching direct sales in the form of own e-commerce. At the same time, with the growing volume of records, the positive contribution of the entire CRM system will naturally grow not only for the company's sales, but also for its customers.

6.4. Case study of Knihobot (Eng. Book-robot)

Knihobot is a small Czech company, created by three friends, who loved old books. They decided to build an antiquarian shop of 21st century. They dreamed of building a book selling shop like real business, that meant buying and selling books in bulk. The market for old books is relatively small in the Czech Republic, so with innovations they soon became number one in the market. In 2020 it was still not standard to sell old books on the Internet with great profit.

When the book arrives at Knihobot, it receives a bar code and is registered to the internal database. Unlike classic e-shops, Knihobot does not have one item that has a thousand identical copies. Each of the books is in a slightly different condition. Each unique piece must be photographed and processed one by one. It is not possible to upload the item to the e-shop once and then sell it more times from the same data and photos, as ordinary e-shops do. The biggest difficulty of the antiquarian market is therefore enormous number of items that needs to be processed.

The original process of uploading books was 2 photos of each book on the table with a camera in hand on a monochrome background. Always one photo from the front and one photo of the imprint. Then photos must be copied from the camera's SD card to the computer and cut in graphic program. Then the worker had to fill in the information about the book, find photos of the right book in the folder and upload them to the book.

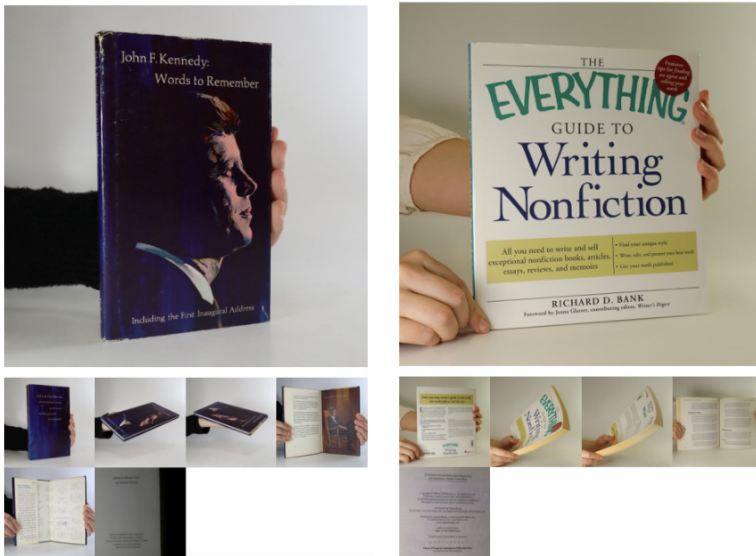


Figure 6.1. Innovative way to capture pictures in Knihobot

Source: (Knihobot e-shop).

The innovation was in the way to capture images. The book is photographed by using a pedal on the floor, which takes a picture of the book when pressed, thus allowing to have free hands when working with pages. In addition, imprints are automatically sent to Google, that takes them and returns them into text form, from which some information (ISBN, name, etc.) are later extracted into e-shop. Altogether, it saves time and allows workers to process more books.

Before the book reaches the e-shop, which the Knihobot team have programmed themselves, it will receive a price according to an extensive database of book prices from the websites of other antiquarian books. When the book is required to send by mail to its customer, it is wrapped in a carton and the barcode is scanned—the label with the address for the carrier is automatically issued.

In 2019 Knihobot sold 52,000 books and the sales were 7.4 mln CZK, which is a little less than it had been planned, but it means an annual growth of 78%. Moreover, there was the commission sale launch (it means purchase with delayed payment after the final sale to customer) for the public at the end of September 2019, and around 180 customers used this service, some of them repeatedly.

Literature to check:

<https://www.whirlpoolcorp.com/our-company/>

<https://fortune.com/company/whirlpool/fortune500/>

<https://blog.knihobot.cz/ohlednuti-2019/>

Student's support

Radical innovations are new products, services or processes and involve significant change and innovation. Accordingly, the impact is also greater—for example, new markets can be created as a result.

Incremental innovations are the optimization and further development of existing products, services, or processes. The purpose and benefits are optimization of customer benefit, cost reduction, repositioning, adaptation for introduction into new markets or adaptation to new circumstances such as new laws and standards.

Sustaining innovations refers to the improvement of existing, similar to incremental innovations. This type of innovation focuses on current customers and their needs.

Disruptive innovations describe innovations that shape a new market. Disruptive innovations mostly originate in the low-end segment, in less attractive segments. However, as the maturity of technology and products increases, they are gradually attacking the mass market and thus replacing existing services.

Questions / tasks

Recommended method of working on case study: team, 2–4 students.

1. Do you think both innovations were necessary? Do you see any other choices Whirlpool and Knihobot had?
2. Can you describe the process of innovation? Steps taken; results gained.
3. Where do you see other potential innovation possibilities for Whirlpool and Knihobot?
4. Was it a radical innovation or incremental innovation? Discuss your opinion.
5. Was it sustaining or disruptive innovation? Discuss your opinion.

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INNOVATIONS ON RAIL FREIGHT MARKET



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Abstract: Ten years ago, the European Union recognized the importance of stopping further development of road freight transportation and the need for making rail freight a more prominent branch of industry. Rail transportation used to hold a more relevant position, but because of slow response to changes on the market and no investments in modernization, it now occupies only around 10% of the share in freight transportation in most EU member states. Most members have initiated the implementation of the restructuring and liberalization of rail market, with the aim of establishing a multimodal transportation network and reducing negative impact of road freight on the environment. The Croatian market is no exception, of course. It has liberalized the rail freight market since the Accession to the EU, while the rail passenger traffic is still monopolized by a company owned by the state. The Croatian national carrier HŽ Cargo has decided to face the competition by restructuring the current business and giving a sharper focus on innovation (intermodal terminals, RO-LA, and digitalization of business operations). The above-mentioned topics are analysed in the following chapter.

Keywords: Croatia, European Union, HŽ Cargo, innovation, intermodal terminals, rail freight transportation.

7.1. Introduction

All countries benefit from freight transportation. It increases the value of goods by relocating them to the points where their value is increased. Freight transportation also broadens the area for the labour market and pushes the production and competition to expand outside their usual operational zones. Furthermore, freight transportation provides work for millions of people and boosts demand for goods and services. This leads to the conclusion that freight transportation plays a crucial role in the productive capacity of the country (U.S. Department of Transportation Federal Highway Administration, 2020). In 2017, the EU-28 transportation industry employed 11.28 million of people (European Commission, 2020). Freight transportation is the major component of all supply-chain and logistics systems (Ranaiefar & Regan, 2011).

Over the last ten years, the European Union has been working on expanding the multimodal transportation network, with the primary aim of reducing the extremely negative influence road transport exerts on the environment. The most promising plan for reducing negative influence on the environment mandates that freight gets relocated from the roads onto the network of the hinterland waterways and railways. In line with that, even back in 2008, the European Union highlighted the importance of creating the preconditions for the establishment of a modern and competitive railroad network, which would enable this type of transportation to become the engine of European integration. In 1970, the share of railroad transportation in the total land freight transportation in the EU area was 32.6% (European Communities, 2008). This fact should not pass unnoticed, as well as the figure of 17.83% in 2018 (European Commission, 2020). While the volume of the transported goods by rail declined in this period, the volume of the freight transported by the road continually increased, so the share of road freight in the entire land freight transportation in the European Union for the year 2018 was 71.95%. The drop in the volume of rail freight transportation would be even more substantial if the EU had not been putting considerable efforts in complete opening of the rail market services and their modernization. Supporting this, the volume of the goods transported by rail has been growing continuously since 2012. The White Paper on Transport (European Union, 2011) supports the idea that, even though rail is seen as not such an attractive mode of transport, it can provide a very good service. Ensuring conditions for fair competition of the rail market is crucial, so that this type of transport can take on more of the medium and long-distance freight (European Union, 2011). Rail freight transport has been very slow in accepting the changes, while containerised and door to door transport service have become widely accepted since the 1970s (Islam & Blinge, 2017).

The Republic of Croatia joined the unique market of the EU on 1 July 2013, which had significant impact on the rail freight market because the national

transportation operator that had previously enjoyed the monopolistic role was now forced to begin competing for the jobs with the competitive firms from the EU member states.

Bearing in mind the previously mentioned need for strengthening the role of rail freight transportation, as well as the fact of changing market situation after joining the UE, the need for analysing the characteristics of this market arises, with special emphasis on the analysis of the strategy implemented by the national HŽ Cargo operator, used as the answer to the pressure exerted by the competition. The main practitioners of the European transportation policy, as well as most member states have recognized the need for a more prominent role of rail in freight transportation. They see the key to success in the establishment of an open market and in the development and acceptance of innovations. It is innovations that are the key to achieving the goals on the rail market. These innovations can help bring all participants together in cooperation and they can play a significant role in promoting more sustainable business attitudes (European Union, 2011).

7.2. Literature review

The literature has devoted considerable number of pages to rail freight transportation and recognized it as important even more than 50 years ago. We can find many authors from the 1980s that focus on rail freight transportation, such as the research on algorithm for routing freight over a rail network whose tracks are controlled by several carriers, conducted by Lansdowne (1981). Crainic, Ferland and Rousseau (1984) dealt with the problem of routing freight traffic and tried to propose an optimal planning model for rail freight transportation. Haghani (1987) conducted extended research on the issues in rail transportation and focused on presenting recent optimization models for rail routing, etc.

Railway is one of the best options if one is to consider the optimization of the costs. It is the most cost-effective mode of transport, although being slow and less reliable than its main competitor—road. However, there are some advantages to rail transportation when compared to road: it can transport bulkier and heavier commodities (Rajabi, 2011; Shinghal, 2005) at lower external costs to community (The World Bank, 2009). In addition, the prices are usually uniform throughout the year, and are not strongly market driven. Road transportation, on the other hand, is greatly influenced by the market and seasonality, and the prices fluctuate from day to day (Shinghal, 2005). There are many papers on heavy traffic congestion and how serious issue it is. Some of the other disadvantages of land freight transportation include air, noise and water pollution, together with the endangerment of vegetation and wildlife, and the increased number of road accidents (Ranaiefar & Regan, 2011; Ongkittikul & Geerlings, 2005).

The European Union has recognized the negative effects road freight transportation has on the environment. One of the initiatives is to shift at least 30% of road freight to rail and inland transportation by the year 2030, and to complete high-speed rail network by the year 2050. This all aims at reducing the GHG emission from road transportation (European Union, 2011). The main reason for focusing on railway development in the European Union is reflected in the fact that in 2018, rail transportation had only 0.39%, while road transportation had 71.75% of the entire GHG emission. The CO₂ emissions were almost the same for both (European Commission, 2020). Therefore, rail transport is considered to be an eco-friendlier mode of transport (Siciliano et al., 2016). Rail freight transportation services usually share their infrastructure (primarily rail lines) with the passenger traffic (Teodorović & Janić, 2017). The situation is no different in Croatia. In only a few countries, including the United Kingdom, the Netherlands, Sweden, Romania and Poland, the national railway network is managed by a company that is independent of the train operations and is not the property of the state (The World Bank, 2009).

It takes better planning, adequate ICT systems and an integrated supply chain to improve the quality of the rail freight service (Islam, Ricci, & Nelldal, 2016). Duffin (2020) suggests that if companies on the rail market aim at improving and modernising the quality of their services, they have to implement innovation(s). This is supported by Yianni (2020), who concludes that this should also be done if they want to survive in the challenging environment. Duffin (2020) also gives an example of the German rail systems that, in 2019, started using 3D laser scanners to measure tracks accurately and to effectively plan routes. Wiegmans, Hekkert and Langstraat (2007) dove into the question of innovations and asked whether they could be successful in rail freight transportation. The results suggest that innovation in rail terminal transshipment is mostly not adopted because there are limited (or no) improvements in product characteristics and limited (or no) improvements in user requirements, followed by high costs. Restructuring is the mandatory condition for making rail transport more attractive. For most European countries, one of the ways to do so is to implement rolling stock innovation as an essential part in operating railway (Ongkittikul & Geerlings, 2005). It is very important to consider the costs and the benefits of the innovations we are planning to implement in our business (Johnson, 2012).

The efficiency of rail transportation has been improving due to digitalization and automatization. Still, there are barriers companies are facing: the process of introducing new technologies demands time and cultural changes, along with the changes in organization and reconsidering success indicators. These obstacles are serious, and it is crucial to identify them so they could be removed and no longer hinder the commercialization of innovation on the rail market. There is a huge problem in many countries of not implementing innovation on operational level (United Nations Economic Commission for Europe, 2019). In recent years, more

and more railway companies on the European market are engaging and implementing solutions from a new form of supplier: the tech start-up. This results in the railway-supplier relationship being changed, and in the industry's wider approach to innovation (Smith, 2019).

7.3. Analysis of Croatian rail freight market

7.3.1. Characteristics of rail freight in the Republic of Croatia

In 2018, the European Union realised the total of 3,353 bn tonne-kilometres. If we observe the transportation in total, including maritime transportation, the highest share went to road freight (50.96) %, while air transport had the lowest percentage ($< 0.0001\%$). In the same year, the share of rail freight was 12.6%, while its average annual growth rate for the period from 1995 to 2018 was 0.5%. Besides the fact that the share of rail freight has had a slight drop in the last two years (12.9% in 2016), the positive side to this is that the number of tonne-kilometres has been growing. In 2018, rail freight realised 423,3 bn tonne-kilometres, i.e., 10.10% more than in 2013. In the period from 2013 to 2018, the number of tonne-kilometres in rail freight was increasing, but in the same period, the kilometres realised by the hinterland waterways was declining (European Commission, 2020). A very similar situation is observed on the Croatian transportation market, where, as evident in Figure 7.1, the dominant role is taken by road transport with the share of 63,04%, and rail transport occupying the third position with 11,23%. The share of rail transport grows to 13,09% if only land transport is considered.

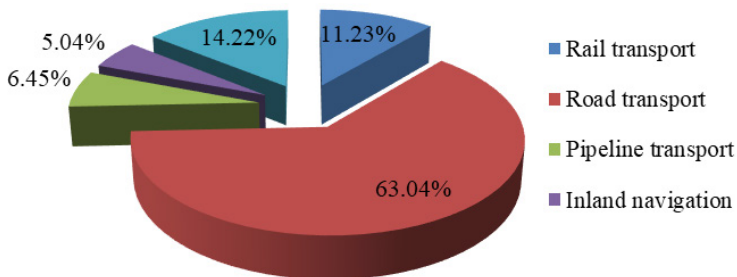


Figure 7.1. Transport structure in the Republic of Croatia in 2019

Source: Authors compiled according to (Croatian Bureau of Statistics, 2020, pp. 68–70).

Since the accession of the Republic of Croatia to the EU on 1 July 2013, we notice that the number of tonne-kilometres has been on the rise. In 2013, 2,1 bn

of tonne-km was realised, while the number of tonne-km in 2018 was 2,7 bn. It should be noted that Croatia achieved growth of 5.8% in rail freight in 2018, while the growth in the EU was 2.1%.

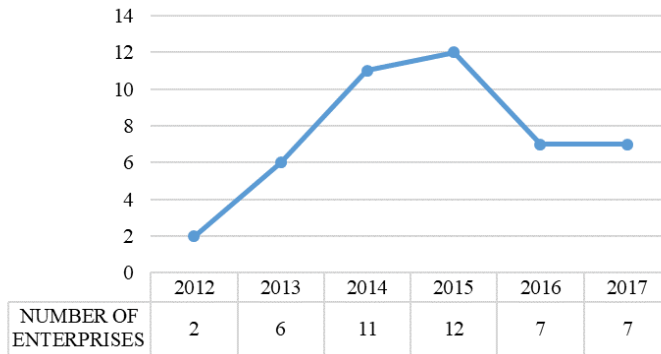


Figure 7.2. Number of enterprises on Croatian Railway market

Source: Authors adjusted according to data from (European Commission, 2015-2020; Statistical pocketbook 2015-2020).

Figure 7.2 clearly shows how the Croatian accession to the European Union has had a positive impact on creating competitiveness on the rail freight service market. The competition in the sector of rail transport can be boosted with these new endeavours. The measures for encouraging the restructuring that also considers social aspects and work conditions should accompany these endeavours (Ongkittikul & Geerlings, 2005).

In 2012, there were only two firms on the market, HŽ Putnički prijevoz (cro. Croatian Railways Passenger Traffic), that held a monopolistic position in the transport of the passengers, and HŽ Cargo that held the same monopolistic position in rail freight transportation. Still, the firm that is owned by the government manages the railway network in Croatia. This fact represented a problem in many other member states, and they have been trying to resolve this with market restructuring and with providing the possibility for other firms to take over railway management. Most rail freight companies in Europe are state-owned. This hinders the companies from developing fast and efficient transportation throughout Europe. There are many problems these companies face: train electrification is incompatible, track gauges are not uniform, long border checks (Wiegman, Hekkert, & Langstraat, 2007). It is also of great importance that governments stop financing inefficient business endeavours of the companies they own through different subsidies and state aids. This is primarily important if they want to ensure equal conditions for all those who operate on this market (European Communities, 2008). Becoming competitive is the first step towards building an efficient market. With the Croatian accession to

the EU, changes in the rail freight transportation occur. This market finally becomes competitive, which positively influences the quality and price of the final service. In 2020, the rail freight services are provided by HŽ Cargo and some other, privately-owned firms: ENNA Transport d.o.o., Rail Cargo Carrier-Croatia d.o.o., Rail & Sea d.o.o., SŽ Tovorni promet d.o.o., Train Hungary and Transagent Špedicija d.o.o.

7.3.2. Case study on the example of the Croatian national rail freight operator

HŽ Cargo was founded and is owned by the Republic of Croatia. It offers the services in regional centres: Centre (Zagreb), West (Rijeka), South (Split) and East (Vinkovci). HŽ Cargo provides the following services (HŽ Cargo, 2020):

- conventional transport, intermodal transport and transport of dangerous goods;
- storage space rental;
- license holder for EUR pallets with the right of their assignment to third parties in the Republic of Croatia;
- rolling stock maintenance (mainly wagon rolling stock).

The realization of the goals set by the EU regarding the freight will largely depend on the rail sector as a strategic sector, and its efforts to shift the balance (Ongkitikul & Geerlings, 2005). System complexity, expensive infrastructure development, lack of resources, increasing cost pressure, decarbonization, and interconnected ICT services are only some of the challenges the railway systems are facing (United Nations Economic Commission for Europe, 2019). HŽ Cargo, being the leading company in this sector, is facing all these challenges as well.

When it comes to rail freight and terminal markets, innovations are important, but it is very difficult to introduce innovations to freight terminals (Wiegman, Hekkert & Langstraat, 2007). An innovation can be seen from two different perspectives: it is something that is newly implemented or something that is new to (Dinges & Pieriegud, 2016):

- the implementing organization—even though the competition is already using this innovation (e.g., selling tickets online);
- a given sector/industry, albeit employed in other sectors/industries (e.g., hybrid vehicles or usage-based billing for traction power);
- a geographic area, e.g., in a country (although known and utilized in other countries, e.g., ERTMS (European Rail Traffic Management System)).

Wiegman, Hekkert and Langstraat (2007) distinguish three categories of innovations on the rail freight market:

1. **“New generation terminals” concepts.** Those terminals have fully automated transshipment techniques and more space-intensive terminal areas. The higher

the level of automatization, the lower the costs of freight manipulation and physical workers.

2. **Trailers on train.** The trailers are built in different forms; however, they all have transporting trailers or swap-bodies on rail wagons. They vary in terms of automation, speed, complexity, and land use. The concepts range from an improvement in 'putting the trailer on the train' to complete new terminal layouts.
3. **Transshipment techniques.** The transshipment techniques can be separated between horizontal and vertical (cranes, reach stackers, and forklift trucks). The innovative vertical concepts in transshipment aim at the increased use of automation to supervise the transshipment material; improvement of the transshipment speed; increasing weight-lifting capacities; transshipment in the presence of an electric overhead line; and a reduction in the used terminal surface. The horizontal transshipment innovations enable the transshipment without lifting the intermodal transshipment unit.

Since 2001, the United Kingdom has been implementing innovations on the rail market with the hope of restoring it to its former glory. Between 2000 and 2020, the innovations brought about many good results: the percentage of the trains that run on time increased to 94% and the number of the broken rails was reduced from almost 1000 to 152. This, in turn, resulted in more passengers using the trains, and more companies transporting more freight by train, which resulted in 30 bn GBP worth of freight transported annually. If companies wish to advance and further develop their business, they should introduce new mechanisation, better automation, automated monitoring systems and innovative thinking (Yianni, 2010). Switzerland has adopted the Swiss split concept which ensures that containers are distributed via conventional shunting yards directly from intermodal terminals to the final recipients' sidings by rail (Islam & Blinge, 2017). All the parties involved in the implementation of innovations should be aware of the fact that this process is difficult and a long-term effort. The same is true about HŽ Cargo and others involved in the process. HŽ Cargo can benefit from the examples of other member states, which have majority of the investments carried out with the support from the EU. Poland is an excellent example: it has modernized its railway infrastructure, repaired railway stations and stops and conducted many other investments on this market thanks to the EU funds (Kozłowski, Pawełczyk, & Piotrowska-Piątek, 2020).

Further development of HŽ Cargo deeply depends on its awareness of that fact, because, for the survival on the market and the establishment of the competitive role, timely implementation of the innovations is of critical importance. Implementation of innovations will not be an easy process for HŽ Cargo. HŽ Cargo management indicate that their strategy for further development firstly focuses on **intermodal**

traffic. This is supported by the fact that in the period from April 2018 to July 2019, the increase of 40% in TEU in the Port of Rijeka was achieved (HŽ Cargo, 2020). Although HŽ Cargo has already undertaken certain steps in upgrading the existing terminals, it is planning to continue with the investments in intermodal terminals. These include the inland intermodal chains with which rail terminals are linked to port terminals (The Geography of Transport Systems, N/A). That is, the focus is placed on building intermodal terminals that link the branches for long-distance transport and then steer towards the branches that operate on shorter distances. To paint the picture, the freight is first transported by sea, then, in the Port of Rijeka, it is transhipped onto the rail and transported to Zagreb or some other destination and then transported by the road (i.e., trucks) to its final destination. In order for the investment of HŽ Cargo to be cost-effective, it is crucial for the new Zagreb-Rijeka railroad to be built in the following years. This would open the possibility for the Port of Rijeka to fully exploit its resources (the 18-meter draught), and to be able to manipulate great amounts of freight it could receive if it had the support of an adequate rail infrastructure. The existing railroad, besides lacking the capacities, has many steep parts, making it dangerous and demanding for a bulk of freight to be transported. This has negative consequences on the duration of the transporting process. Bearing in mind the definition posed by Dinges and Pieriegued (2016), who suggest that product innovation can include rolling stock and /or the infrastructure, the conclusion can be drawn that intermodal terminals fall under this category. The previously-mentioned growth has also been reflected in the growth of the transported goods on the rail market in the Republic of Croatia, so, in 2019, the total of 14,449 thousand tonnes was transported, representing the growth of 18.65% in relation to the year 2017. Moreover, a significant increase in business profits was recorded: on July 30, 2019, they amounted to 250,94 m HRK, which is the increase of 20.46% in relation to January 1, 2019 (HŽ Cargo, 2019).

It is important to note that HŽ Cargo has been operating with **RO-LA trains** it is currently renting, but its business plan highlights the importance of investing in the terminals with the huckepack technology, so HŽ Cargo would then stop renting the RO-LO trains and begin using their own. In case where trucks are transported piggybacked on the Rolling Road (ROLA), the roads are kept clear and the influence on the environment is reduced; this also suggests some safety regulations to be taken into consideration (Rail Cargo Group, N/A). To reap the benefits, the investments HŽ Cargo is making will not be enough; it is necessary for the government to subsidize the RO-LO trains. With no subsidies, it is highly unlikely that the road freight carriers will replace the roads with the rail.

HŽ Cargo is persistent in the idea of **advancing its operations**. Therefore, it issued the 'Call for presentation of IT solutions for operational business in railway freight transport' (HŽ Cargo, 2010).

Questions / tasks

1. Do you think that, without the implementation of innovation, the survival of HŽ Cargo would be possible? Where do you see main innovations being implemented?
2. Considering the options of innovations on the rail freight market, do you consider that HŽ Cargo has chosen the appropriate ones?
3. Can you describe the process of innovation (steps taken, results gained)?
4. Where do you see other potential innovation possibilities for HŽ Cargo?
5. Was the innovation, that HŽ Cargo listed, sustaining or disruptive? Explain your standpoint.
6. Describe main characteristics of rail freight market in your country.
7. List innovations that have been implemented on rail freight market in your country. Are there similarities with Croatian market?

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BRAND AS AN INNOVATION— THE CASE OF CZECH WINE



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Abstract: The Czech Republic is not a typical wine-growing country, yet winemaking and viticulture are among the oldest Czech crafts. Although the situation is slightly improving today, domestic wine production is not very preferred by Czech consumers since more than two-thirds of the wine that Czechs drink each year is imported. In the long term, the worst situation prevailed with the sales of a young wine. The cause was twofold: On the one hand, the market was already penetrated by imported Beaujolais nouveau, which became a synonym for the young wine. On the other, a peculiar Czechs' taste for young wine was also an obstacle. As a young wine, many Czechs drink partially fermented must from grapevine fruits called "Burčák". The young wine market was therefore seemingly penetrated with a low possibility of new brands entering it.

The proposed case study will describe an ongoing campaign in which a new brand, "Svatomartinské víno", was created. With this brand, it was possible to change the Czech consumers' view of immature wines fundamentally. Thanks to the innovative branding approach, the product, which Czech consumers had neglected for many years, became a superior and must-have product for broad consumers. Also, the relationship between the brand and consumers has been established. The new brand has become a potential for many other related events. Last but not least, the consumption of domestic wine increased, which led to the support of local wineries and related regions.

Keywords: innovation, Svatomartinske, young wine, wine brand, Wine Fund of the Czech Republic.

8.1. Introduction

Winery and viticulture are among the oldest craft industries in the Czech Republic. Nevertheless, domestic wine production is not very preferred by Czech consumers. Nowadays, the situation is slightly improving, but still, more than two-thirds of the wine that Czechs drink each year is imported. In an effort to help Czech winemakers to find their place on the domestic market, various marketing communication campaigns are conducted. However, in spite of all efforts, Czech winemakers failed to sell young wine for a long time. In the Czech Republic, consumers prefer quite a peculiar version of a new wine called “Burčák”. It is partially fermented must from grapevine fruits, and therefore, this is more an intermediate product in wine production rather than regular wine.

The goal of the chapter is to describe brand as an innovation. To achieve this goal, the case study of an ongoing campaign for a new brand, “Svatomartinské víno”, was proposed.

8.2. Theoretical background

The American Marketing Association defined brand as “a name, term, design, symbol, or any other feature that identifies one seller’s good or service as distinct from those of other sellers”. Similarly, Aaker (1991) defines a brand as “a set of assets (or liabilities) linked to a brand’s name and symbol that adds to (or subtracts from) the value provided by a product or service...” The brand informs about the product (or service) origin and thus offers protection to both—the customer and the manufacturer. Most other definitions are compiled in a similar vein, although the meaning of the brand has changed throughout history.

From their very beginning, brands help to differentiate individual products from each other. At the same time, they bring a specific promise of value, strengthen trust, evoke emotions, and appropriate consumer behaviour. A successful brand allows producers and marketers to speed up the product launch phase, including speeding up the consumer processing of information. Thanks to the well-known brand, it is possible to use existing associations with the brand for a new product (Kotler & Gertner, 2002). The importance of brands has expanded from mere product identification to other levels, such as performance, social image, value, credibility, and identification (Lassar, Mittal, & Sharma, 1995). Brands offer social and emotional value to consumers. But there are even more purposes of brand since it can serve as a means for innovation.

There are many successful paths to innovation, so it is quite regrettable that companies often limit themselves to only one or two of these paths, and therefore they unnecessarily constrain their growth potential (Calder & Calder, 2012). There

is an indisputable fact, that innovation is crucial for continuously ensuring superior customer value creation, which is considered an unquestionable part of modern management (Beverland, Napoli, & Farrelly, 2010; Kapferer, 2012). As Nedergaard (2014) suggests, corporate brand identity can guide innovation strategy and decisions for coordinating management processes and the use of resources to develop brand supportive innovation capabilities.

The basic definition of innovation was formulated by J. Schumpeter (1982), who understood innovations “as creating fundamental or radical changes, including the transformation of a new idea or technological invention into market product or process”. As Calder & Calder (2012) states, companies focusing on innovations consider brand as an outcome of innovation processes. But brands are not just the result of innovation—they can be an important path to innovation. Very simply put, an established brand can lead the company into new product categories. In this case, it is the so-called “brand-led path to innovation” (Calder & Calder, 2012; Nedergaard & Gyrd-Jones, 2013; Dru, 2015).

Branding and innovation are tightly connected. But for a brand to be able to drive innovation, it must have certain characteristics. As Abbing (2010) noticed, there are at least three factors which the brand must have: (a) a content, (b) a form, and (c) a process. In this case, brand content is about the story, which a brand is telling, or, in other words, what the brand is about. The second factor, brand form, refers to how the brand is set and shared within the company. The last one, brand process, means the way in which and by whom a brand is built, communicated, and maintained. The special place in this list has another factor—specific qualities. The brand in the innovation process must have specific qualities that can inspire the ideation of new product ideas (Abbing, 2010).

According to the text above, brand-driven innovation will consist of four steps:

1. Human-centered branding: Making the brand suitable and accessible for innovation and design by releasing and connecting the brand with product-designers or with the stakeholders.
2. Building an innovation strategy: Creating a strategy to fulfil the brand promise from the match between company capabilities and customer needs. In this case, there is a difference from a customer-centered innovation strategy that heavily relies on the organization’s vision and understanding of its own capabilities.
3. Building a design strategy: Creating a strategy to use design to make the innovation strategy meaningful interactions in brand touchpoints.
4. Touchpoint orchestration: Aligning all brand touchpoints into a total customer experience. When the customers encounter a brand touchpoint, the organization has an opportunity to strengthen the relationship with them. By this stage, it is possible to focus on managing these opportunities.

In this regard, Nedergaard and Gyrd-Jones (2013) suggested that traditional market-oriented strategies should be complemented with intuitive thinking and

abductive reasoning as associated with the concept of design thinking. They invented a framework for Sustainable Brand-based Innovation (SBBI), which can be used as a tool for radical and market-shaping innovation processes that underlines the critical role of the corporate brand in innovation management processes. Despite the lack of related relevant literature dealing with the use of brand as an innovative tool, their framework can be valuable. At least one main idea of the framework should be resonating: the idea that the brand should be considered as an equal partner to the strategic management of resources and intuitive market orientation.

8.3. Case study

The first written mentions documenting the cultivation of vines and wine production on the territory of today's Czech Republic are dated to the ninth century AD. However, it is very likely that winemaking in this territory had been previously done by Celts around 500 BC (Kraus, Ballík, Vanek, & Pospíšilová, 1999). The places where vines have been grown since ancient times co-create not only the countryside but also penetrate the songs and poems, shape cultural habits, and so influence the fine arts of local artists.

Despite all the above, the Czech Republic is certainly not the “Vine Country”. Vine and viticulture in the Czech Republic account only for about 5% of final crop production. However, there are some areas where viticulture is of extraordinary importance. In the South Moravian Region, Vini- and viticulture account for about 1/5 of the total agricultural production of the region, which is the most of all branches of agriculture (Tomsik & Sedlo, 2007). In this region, Vini- and viticulture is considered to be a very important local economic factor with indisputable positive externalities related to tourism.

The specifics of viticulture in the Czech Republic are not only given by nature, but also by political and economic factors. In this regard, the development in the field of viticulture over the last century is crucial. The historically significant area of agriculture began to decline during the Austro-Hungarian Empire when the customs border between Hungary and Austria was abolished. The Czech market was then flooded with cheap wines of Hungarian production, which resulted in a reduction in the production of Czech winemakers. Also, farmers began to be interested in more profitable technical crops such as sugar beets. As a result, vineyards rapidly started to disappear, and in 1930, there was the smallest number of vineyards on Czech territory ever. The subsequent collectivization of agriculture and the inclusion of former Czechoslovakia in the Council for Mutual Economic Assistance (CMEA) had further negative impact on the form of Czech viticulture.

Wide privatization of agriculture in the first half of the 1990s and the approval of the Wine Act in 1995 laid the foundations for the development of viticulture

in its current form. The quality of our wines was gradually improved. Firstly, by changing the methods of treating vineyards, returning to traditional varieties, but above all thanks to extensive investments in modern technological equipment of small and large processing capacities. At the turn of the millennium, Czech wine again began to enjoy increased interest among Czech consumers.

Nevertheless, there were areas in which Czech winemakers had long been unable to fight foreign competition. Mostly, this was a result of weak or even missing marketing approach of most Czech winemakers. The cause was—as usual—the lack of money, knowledge, and time of the majority winemakers. The point is that the structure of the viticulture business in the Czech Republic is quite unequal. There is a relatively massive number of small winegrowers who farm on lands up to 0,2 ha. These small wineries represent more than 70% of all Czech wineries. On the other hand, the sum of their total vineyard lands represents only 7% of all the Czech vineyards. Thus, there is a concentration of vast vineyards in a small number of “large” growers, i.e., growers with vineyards over 1 ha of planted area. They represent 6% of the total number of growers, and manage 84% of the total area of vineyards in the Czech Republic (Vinařský fond České republiky, 2020).

While large wine companies were able to communicate their products even to foreign markets, small winemakers did not have enough know-how to communicate even in the domestic market. What is more, the position of the sale of Czech wine in strong competition with foreign markets is generally and in the long run very difficult anyway.

To help winemakers with marketing communication activities, the Wine Fund of the Czech Republic was established in 2002, The Wine Fund operates on a similar basis as this type of organization in other wine-growing countries in Europe. Its sole task is to support the marketing of Czech wine, the development of wine tourism, and informing the public about viticulture and winemaking aspects (Vinařský fond České republiky, 2020).

In spite of all efforts, Czech winemakers, for a long time, failed to sell young wine. In the Czech Republic, consumers prefer quite a peculiar version of a new wine called “Burčák”. It is partially fermented must from grapevine fruits, and therefore, this is more an intermediate product in wine production rather than regular wine. At the same time, in some foreign countries, the young wine was sold well. The most famous example of the sales success of young wine is Beaujolais Nouveau. This wine is produced in France in the Beaujolais region. It is a region that is not as promised to wines as, for example, the region of Bordeaux. Wines produced in these climate conditions are fresh, atypical, and very well coloured, but these properties last for only a few months, and after half a year, they cease to be suitable for drinking. The wine must, therefore, be drunk young otherwise, its economic benefits are lost. The strong tradition of Beaujolais Nouveau bottles to open at midnight on the third Thursday in November has been joined by strong

global marketing, and Gamay wine is now opening in more than 150 countries each year. Apart from France, Beaujolais Nouveau is the most popular in Japan.

In the first decade of the new millennium, the same sales success of Beaujolais Nouveau threatened to be repeated on the Czech market. For Czech winemakers, who mostly grow vines suitable for making young wine, it could be life-threatening competition.

8.4. Results and solutions

A wine whose alcoholic fermentation has not yet been completed and which is not separated into yeast is called a “Young wine”. It is a fresh and fruity wine with lower alcohol content (usually up to 12%). The most famous brand of young wine is Beaujolais Nouveau in France and *Vino Nuovo* (Novello) Italy (Dusková, 2006).

The tradition of young wine has developed over the centuries in a completely unique way based on the local cultures of the part of the Czech territory, especially Moravia. The designation of new wine, according to St. Martin’s, began to be used at the court of Emperor Joseph II (Hynek, 2011). At the beginning of November, it was customary to taste the new wines. This period coincided with a time when the harvest was already safe under the roof, and the peaceful Advent associated with the pre-Christmas fast was approaching. St. Martin’s has always been associated with a time of rich feasts and exuberant merriment. This is where the traditional connection comes from today—St. Martin’s goose and St. Martin’s wine.

St. Martin’s wine was first commercially introduced in the Czech Republic in 1994. At that time, it was still called “Moravíno Nouveau”, and it was only wine of the company *Vinné sklepy Valtice* (Krška, 2005). Sales success was minimal—only a few hundred bottles were sold, which was also due to the above-mentioned popularity of “Burčák”.

It was not until 2005 that the Wine Fund of the Czech Republic started to use the historical tradition and the story connected with St. Martin. Until then, only the word designation “St. Martin’s” was transformed into a graphic form of a registered trademark (see Figure 8.1).

Today, the “Svatomartinské” brand is owned by the Wine Fund of the Czech Republic and is offered for use by all winemakers whose young wines meet the set conditions. The fund supports and promotes the brand within the marketing communication activities. As a “Svatomartinské”, only the following variety of wines may be sold: white wine Müller-Thurgau and Veltlin red early; rose wine Blue Portugal and St. Lawrence; red wine Blue Portugal and St. Lawrence.

Bottles marked as St. Martin’s must be marked with a label bearing the common logo of St. Martin’s wine in the form of Martin on horseback (see Figure 8.1), and each bottle must have a cork wine stopper with this logo as well. The producers of

stoppers can issue only as many stoppers to individual producers of St. Martin's wines as they actually produced of this wine.



Figure 8.1. Basic graphic design (logo) of the brand “Svatomartinske”

Source: (Vinařský fond České republiky, 2020).

Krška (2005) describes the way in which winemakers can obtain the “St. Martin’s” brand. An application must be submitted to the wine fund stating the exact specification of the producer and the individual samples. Along with the application, the winemaker also supplies samples of wine that he wants to sell under the St. Martin’s wine brand. The sample evaluation is performed by an independent commission. The fee for winemakers for the assessment of one sample of wine is CZK 500 (approximately 20 EUR). The members of the Commission are appointed by the Wine Fund. The five-member independent Commission consists of wine experts, sommelier, and renowned tasters. The two-round assessment of samples is anonymous. The Commission knows only the type and variety of wine. The evaluation takes place on a 100-point scale. The minimum score for wines that can be marketed is 75 points. Wines that did not reach the limit of 75 points can try to get the St. Martin’s mark in the second round. Subsequently, a list of wines that can be marketed as St. Martin’s wine is published.

Every year, the wine fund conducts a brand awareness survey entitled *Brands from the wine fund’s portfolio from the perspective of the population for 18+ years*. According to this research, “Svatomartinske” brand awareness grows every year. Respondents most often saw advertising on the television screen, followed by advertising in magazines and billboards. The advertising of the brand is increasingly

transmitted directly to the main Czech retail chains (e.g., Albert, Billa, Globus, Interspar, Makro, Penny Market, and Tesco). The sales support activities consist of wine tastings, the use of “Svatomartinske” stickers and leaflets, and in-store radio. The consequences of brand awareness are also reflected in the overall production of wine, which is a response to consumer demand. The increasing trend in manufacturing is shown in Table 8.1.

Table 8.1. Production of St. Martin’s wines

| Year | Bottles | Wineries |
|------|-----------|----------|
| 2005 | 125 000 | 31 |
| 2006 | 350 000 | 59 |
| 2007 | 526 000 | 67 |
| 2008 | 700 000 | 86 |
| 2009 | 1 100 000 | 97 |
| 2010 | 1 600 000 | 100 |
| 2011 | 1 980 000 | 125 |
| 2012 | 2 193 000 | 122 |
| 2013 | 2 019 000 | 116 |
| 2014 | 1 900 000 | 107 |
| 2015 | 2 300 000 | 113 |
| 2016 | 2 340 000 | 111 |
| 2017 | 2 200 000 | 105 |
| 2018 | 2 200 000 | 110 |

Source: (Vinařský fond České republiky, 2020).

8.5. Conclusion

In 2005, the St. Martin’s wine brand was purchased by the Wine Fund, which systematically began to build its position on the market. Since 2008, the PR agency Omnimedia has started cooperating on the campaign. Since 2009, under its leadership, the media coverage of the topic has skyrocketed, and today the brand’s knowledge is practically 100%. Today, the public not only recognizes the St. Martin’s wine brand but is also more informed about what this brand represents. Consumers thus associate St. Martin’s wines with autumn. They know that these are fresh young wines of the new year, they perceive their connection with gastronomy and traditions and, finally, St. Martin’s wines are associated with dozens and hundreds of events throughout the country.

Questions / tasks

Recommended method of working on case study: teamwork; group of 2–4 students.

1. Where do you see further potential brand innovation possibilities for “Svatomartinské” brand?
2. Can you suggest any other way how to deal with the described situation on the Czech wine market? In other words—was the innovation through the brand the only possible way to improve the sales of young Czech wine?
3. Do you know any other verbally transmitted brand? Would it be possible to transform it into a graphic form with related requisites of a registered trademark? What steps would you need to take to do this?

Student’s support

Brand – “a set of assets (or liabilities) linked to a brand’s name and symbol that adds to (or subtracts from) the value provided by a product or service...” (Aaker, 1991).

Branding – “endowing products and services with the power of a brand” (Kotler & Keller, 2015).

Innovation – “creating fundamental or radical changes, including the transformation of a new idea or technological invention into market product or process” (Schumpeter, 1982).

Brand-led innovation – Established brands can be another resource for innovation of a product or a company. Therefore, the brand should be considered as an equal partner to the strategic management of resources and intuitive market orientation.

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STORYTELLING IN BUSINESS—HOW TO INCREASE CUSTOMER ENGAGEMENT?



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Abstract: Storytelling, as a marketing innovation, is the market communication tool that allows present the facts in a coherent and attractive way so as to stand out from the competition and more effectively influence the consumer's imagination and engagement. It can be concluded that the history of storytelling itself dates back to the beginnings of mankind, when humans started to transfer knowledge from generation to generation. The chapter indicates that storytelling evokes emotions in customers, and these in turn affect commitment and action.

The most important and primary elements of storytelling include superior message, conflict, characters (the archetypes) and plot. Each good story can be based on a few important points, which are well described by the concept proposed by American writer Joseph Campbell. In addition, the chapter also presents examples of sources of inspiration for storytelling. Among them, it is worth mentioning, for example: history of the company's founder or president, the beginnings of the company, employees' stories or milestones (successes or failures).





The last part presents two case studies of the use of storytelling by enterprises. These are examples from the Polish market regarding the use of storytelling in employee recruitment and customer engagement.

Keywords: customer and employee engagement, storytelling, sustainability.

9.1. Introduction

As defined by National Storytelling Network (2020), **storytelling** is “**one of an ancient art form and a valuable form of human expression**”. According to David JP Phillips, the history of storytelling began 100 000 years ago (Table 9.1.).

Table 9.1. History of storytelling

| | |
|---|--|
| <p>100 000 years ago—people started developing the language; they started using storytelling to transfer knowledge from generation to generation</p> |  |
| <p>27 000 years ago—people started transferring knowledge from generation to generation through cave paintings</p> |  |
| <p>3500 years ago—people started transferring knowledge from generation to generation through text</p> |  |
| <p>31 years ago—PowerPoint was born</p> |  |

*Pictures from: <https://pixabay.com/>

Source: (Phillips, 2020).

Storytelling is a technique of stimulation of the listeners' imagination with the help of a story (Stączek, 2014). The stories conveyed in them should evoke emotions, i.e., fear, anger, surprise, disgust, pleasure, and sadness (Tkaczyk, 2017),

and create images in the imagination, i.e., activate the right cerebral hemisphere, which affects engagement and better remembering (Table 9.2.). **Emotions motivate to involvement and action;** hence the rules of storytelling (used in show business) are nowadays more and more often adapted in the marketing activities of enterprises. Considering the fact that traditional information transfer mainly affects the left hemisphere, the inclusion of factors influencing the right hemisphere in the message implies tangible benefits, e.g., it allows for remembering or taking actions in the way that is faster, more pleasant, and accessible for the consumer.

Table 9.2. Hemispheres of the brain

| Left-brain functions | Right-brain functions |
|---|--|
| <ul style="list-style-type: none"> - Logic and number skills - Daily activities - Language and grammar - Reasoning - Memory - Analytic and detail - Science and math - Written - Strategy - Facts - Words of songs - Right-hand control | <ul style="list-style-type: none"> - Creativity - Feelings - Concentration - Photo memory - Visualization - Imagination - Decision making - Multitasking - Intuition - Arts, music awareness - Active listening skills - Insight - 3-D forms - Left-hand control |

Source: Own elaboration based on (*Neuromyth 6*, 2021; *Left and right hemisphere of the brain*, 2021).

Shaping the brand image is one of the basic tasks of storytelling. It should be added that there is a fundamental difference between simple telling about a product and telling a story about a brand. This is because ordinary facts about the product are difficult to remember (e.g. I was at a market, I bought apples and baked an apple pie from them), but if we add emotions to them, the story becomes much more pleasant; it is easier to assimilate it, and feel what a given character in the story has experienced (e.g. I was at the marketplace early in the morning, I bought delicious apples from an old, grey-haired lady, and then a wonderful apple pie was made from them, ...can you feel the taste of this apple pie now?). Storytelling allows for the synchronization of the brain of the storyteller and the listener, and thanks to this, dopamine, the happiness hormone, is released. Emotions also motivate to change. Thanks to the emotional history, people wonder what they can change in their lives and in their beliefs, the stories create role models to follow. It is also easier to go back to a given story if the story is accompanied by emotions. So instead of selling banking services, free access to money to make your dreams

come true can be offered, instead of selling insurance—it is worth offering family safety in unforeseen situations, and instead of selling coffee—offering relaxation and a sense of pleasure in a leisure moment.

As mentioned above, storytelling influences the emergence of emotions, and emotions, i.e., the consumer's engagement. **Customer engagement (CE)** is a new perspective in managing customer value, and at the same time an element of modern relationship marketing. According to Vivek, Beatty, and Morgan (2012, pp. 127–145) this concept means the intensity of participation (and connection) of the current or potential customer in the offer and activities of the organization. This participation and relationship can be initiated by both the consumer and the organization, based on customer experiences with products or the activities of these organizations. Engaging the client involves not only their behaviour, but also the psychological (including especially emotional) aspects of those behaviours.

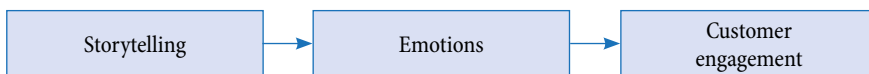


Figure 9.1. The relation between storytelling and customer engagement

Source: Own elaboration.

Consumers' engagement and the use of their experiences is more and more often used not only at the stage of improving existing products, but also in creating new ones, as well as testing and improving them (Baruk, 2020). In generating ideas and concepts of new products, enterprises use various methods of marketing research (qualitative e.g., focused group interviews, and quantitative e.g., surveys). Obviously, using knowledge and experience of consumers, as well as their engagement may concern not only product-related areas, but also other elements of the strategy (Lüttgens, Pollok, Antons, & Piller, 2014). The use of customer experience and engagement in the brand storytelling that has been abovementioned is one of the most important of them. The benefits of this approach include in particular:

- the conviction that the brand promise becomes real;
- building trust in the brand, and the company through consistency in all interactions created with customers;
- creating positive memories related to the brand;
- recognition and increase in brand value.

Skillful use of the **active participation of customers and their engagement in the company's activities**, as well as basing the organization's policy on the **customer's perspective** is an immanent feature of **storytelling as a marketing innovation**.

Customer engagement in creating new products, modifying the existing offer, or even selling products can take various forms. They include for example the following:

- activities enabling the creation of personal relationships with the brand (e.g., asking the customer their name and writing it on the mug by a barista at Starbucks or tattooing the logo of a beloved brand);
- communicating, in the message, the values that build the brand, and not the properties of the product, while focusing on the context of use and importance in the customer's life and experiences (e.g., in one of the campaigns Nike decided that instead of talking about the functional properties of the latest running shoes, it will manifest the values that are close to it);
- inspiring customers to act, by spreading awareness of important problems, helping others, engaging them in the game or entertainment that ends with rewards for selected participants;
- encouraging buyers to present ideas and answer questions, to test products virtually, participate in discussions, competitions, events, etc., as well as to express recognition for support from customer;
- asking the client questions and responding to their needs, listening to them—through qualitative and quantitative research, questions in social media or in the newsletter.

9.2. Storytelling—how to use it?

When starting our considerations regarding the use of storytelling in business, it is worth starting with its basic elements. The most important and **primary elements of storytelling**, include (Fog, Budtz, Munch, & Blanchette, 2010):

- **superior message** is a certain universal truth known to people, which they should be reminded from time to time, in order to maintain certain values; it is also a moral statement that determines the direction of the whole story, e.g., in the Dove message—Real beauty, beauty has many faces;
- **conflict**, which is the driving force behind the story; without conflict there is no story at all. If there was no conflict (there would not be fight between good and evil, no hero versus villain), or it would be too low, the story would be too harmonious, predictable, and therefore boring. In the case of a brand, it helps to understand what ideals or values the brand defends, and who or what it is against, e.g., the Harley Davidson brand shows liberation and life on the road versus mediocrity and imprisonment at home; Dove is true beauty versus stereotypes created by media; creative play with Lego blocks versus passive and limiting entertainment;

- **characters**, they are primarily heroes who want to achieve a specific goal (e.g., company founders, their employees), their opponents who stand in the way of achieving this goal (e.g., market competitors, negative public opinion), beneficiaries (someone, who will benefit from the hero's achievement of the goal, e.g., the clients, their relatives) and other characters supporting the hero or the opponent. In this case, it is worth using the **archetypes** set, i.e., the basic model of a mythological character that connects all the stories of a given brand and that can be transferred from generation to generation. The most important archetypes include the hero, the innocent, the wizard-mage, the jester (the clown or the joker), the rebel (the outlaw), the sage, the lover (the seducer), the everyman, the ruler (the lord), the caregiver, the explorer and the creator;
- **plot**, i.e., description of how the story should develop. In the basic structure, first the background is determined, i.e., the scene in which the story will take place and its protagonist are presented, which attracts the viewer's attention, and a foretaste of what will happen next is shown. Then there is a certain change that results in a conflict, and a goal that the hero faces. The latter is challenged with a choice that will determine the development and outcome of the whole story. As the action develops, the conflict intensifies, and it lasts almost until its resolution, at the end of the story.

An interesting approach to storytelling was presented by American writer Joseph Campbell. He described the points on which each good story is based (Bronzite, 2021). They are presented in Figure 9.2.

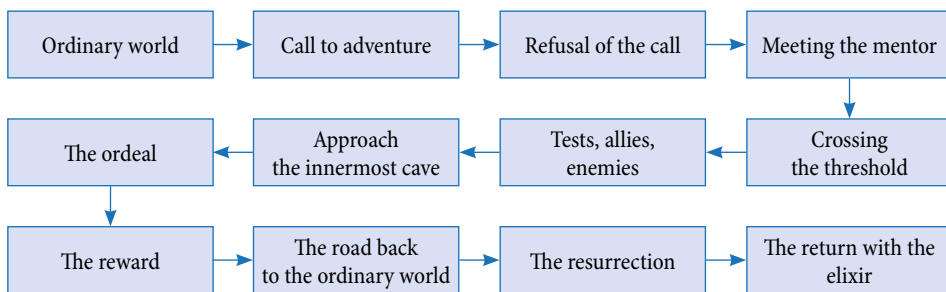


Figure 9.2. Monomyth—the Hero's journey by Joseph Campbell

Source: Own elaboration based on (Bronzite, 2021).

Each story begins in the **ordinary world**. Describing the context of the story, the ordinary world in which the Hero lives is presented. We learn the most important details about our Hero: where he/she exists, everyday life in his safe place, his nature—as a human. The hero's adventure begins with a **call to adventure (call to action)**. This may be related to a direct threat to the peace and safety of himself,

his loved ones, and even the community in which he lives. In the third stage—**refusal of the call**, the Hero will have fears and doubts that need overcoming. The problem that must be solved may seem too difficult to solve. **Meeting the mentor** is an important turning point in the hero's journey. The Hero needs the support and guidance from the mentor. It can be some especially important item (thing), a conversation about the dilemma facing the protagonist, wise advice, practical training (activity), as well as self-confidence. All these things received from the mentor are designed to get rid of the hero's doubts and fears and give him courage to continue the journey.

Crossing the threshold means that the Hero is ready to act in accordance with the call to adventure—physical, spiritual, or emotional. This means that he crosses the line between the world he knows and the world that is new to him.

The Hero needs to show commitment—it could be leaving home, changing jobs, using a product for the first time in his life, doing something he never did and was always afraid of. The next stage **tests, allies, enemies**—these are increasingly difficult challenges for the Hero. These can be not only physical obstacles, but also enemies who want to eliminate his actions on the way to his final goal. The Hero must recognize who his friend is and who he can trust, and who the enemy is. In this phase, his power and skills are checked. Afterwards step—**approach to the inmost cave**. The deepest cave is, for example, an inner conflict or the actual location of the Hero (most often in great danger), just before making the last leap into the unknown. **The ordeal** may be, for example, a dangerous test, encountering a mortal enemy or a serious inner crisis (fear) which the Hero has to face in order to survive. This is the culmination of the Hero's journey—because everything that is most important to him in life is put on the line.

After defeating the enemy and winning, the Hero changes, i.e., becomes a stronger person and receives a **reward**. The reward is usually some important item, solving a mystery, greater knowledge, or reconciliation with someone important to him. **The road back** is the hero's return home with a reward—into the Ordinary World. The penultimate stage in the hero's journey is his **resurrection**. The hero faces the biggest problem, an obstacle, and even death on his journey, and at the same time the most dangerous time. The last and the most difficult battle could have extraordinary consequences for his ordinary world and for those he left behind in it. He bears a heavy burden, but in the end, he succeeds in destroying the enemy completely and becoming reborn himself. The final stage of the hero's journey is **the return with the elixir**. The changed Hero, returning to his ordinary world, will live differently. He knows a lot of new things, is bolder, starts a new life, brings optimism and hope to those he has returned to. So, we can say, the ending of every good story is a punch line. It brings catharsis to the listener, and makes the story remembered and passed on.

An important question and issue in the use of storytelling in business is where to get ideas for it? **The sources of storytelling** can, for example include (Hajdas, 2011):

- history of the company’s founder or president;
- the beginnings of the company;
- employees’ stories;
- milestones (successes or failures);
- stories from opinion leaders, contractors;
- product.

The story of Karol Wedel who gave his son Emil a chocolate factory as a wedding gift is a Polish example of storytelling using the history of the company’s founder or president, and the origins of the company. Other famous world examples are the story of Steve Jobs, who left Apple as a result of a conflict, but returned after several years (almost like a prodigal son in a biblical story), or Richard Branson, who loves extreme sports and adventures, and he used it for a passion for taking risks in business (type: explorer). It is worth adding that in order to be able to base storytelling on the leader’s history, the founder/president should, among others have an unconventional approach to business; an idea that managed to change the way of conducting a business; an interesting personality, charisma, something that attracts other people; or a passion that helps in creating great things (brands like e.g., Rolex, Mercedes).

“The last bottle” is a remarkably interesting Polish example of using storytelling based on the employee’s story. A 94-year-old gives back a bottle of Baczewski vodka stolen during the war. The man “with a sparkle in his eyes and visibly moved by the experience, he spoke of his job as a warehouse worker at the Spirits Plants in Kraków, the destination for entire shipments of Baczewski’s wares pillaged from Lvov by the Germans. In order to provide for a decent living for himself and his family, he would take a bottle of vodka every day from the warehouse (...). He handed the surviving bottle over to Managing Director of J.A. Baczewski in Poland. Ultimately the company decided to entrust the Polish Vodka Museum in Warsaw with this prize. The bottle (...) is seen by many as a symbolic reflection of the fortunes of Poland” (*The last bottle*, 2021).

In turn, the products that have the greatest potential for creating brand storytelling are products with a long and rich tradition, e.g., Patek Philippe watches, which have been cultivating the traditional Geneva watchmaking artistry since 1839 (“Independent, family-owned Genevan manufacture”). It uses multi-generational storytelling and talks about the ambitions of every man to extend the family and have an heir. They can also be products manufactured in a way that is accompanied by specific (somewhat magical) rituals (it is used by brands such as AXE, Walt Disney, FedEx, Harry Potter) or which in some way change people (physically, mentally, or spiritually), e.g., brands like Dove, Nike, Gillette.

Another important **source of storytelling can be customer engagement or customer stories**. A great example of a company that used customer engagement

as a source of storytelling is Heineken. These company uses random customers to convince them to do the impossible—in return they will receive tickets for the championship. For example, in *The negotiations* football fans try to convince their girlfriends in a furniture store to buy stadium seats for their home. If they managed to convince the woman to buy these two seats, they got two tickets for the Champions League final (*The negotiations*, 2021).

Storytelling, like any marketing activity, should be subject to efficiency assessment. In this case, the following can for example be evaluated:

- brand (or advertising) awareness and perception;
- attitudes towards advertising, company's products;
- perception of quality;
- shopping intentions;
- involvement in the content of the ad.

The use of storytelling influences consumers' brand experience. For example, the results of qualitative research conducted by Lundqvist, Liljander, Gummerus, and van Riel (2013) indicate, that “consumers who were exposed to the story described the brand in much more positive terms and were willing to pay more for the product”.

9.3. Case studies

This section presents examples of the use of storytelling in various spheres of business activity.

9.3.1. Join the medical imaging project at Future Processing, and help us create the better future—storytelling in employer branding

Storytelling can be used in building the employer's brand in the eyes of employees, i.e., in employer branding. Especially nowadays, when the labour market is an employee's market, additional activities are undertaken in order to distinguish the company. Core value which is the salary / wage, turns out to be insufficient incentive. Potential employees are looking for additional, extended values (Stefańska & Olejnik, 2021), especially those that may contribute to improving the reality.

Based on the above assumptions, Future Processing company, with its headquarters in Gliwice, Poland, used storytelling in the employees' recruitment process. The company intended to recruit several high-class specialists to work for them. Highly specific competencies were required when competing for potential new employees with companies from the medical industry. The need to hire new

employees was related to the implementation of a specific project on the border of IT and medicine, aimed at increasing the effectiveness of imaging diagnostics in the treatment of cancer. In the recruitment process, the recruiters prepared a short film using the association with Rembrandt's *Anatomy lesson of Professor Nicolaes Tulp*. Future Processing did not apply the classic recruitment notice but showed how technology supports people and how a candidate can contribute to it (Koc, 2017).



Figure 9.3. Print Screen of scenes from Future Processing's recruitment video

Source: https://www.youtube.com/watch?v=80z3yr7wOBo&feature=emb_logo

Evaluate the effectiveness of storytelling in recruitment, knowing that during the 4 months of the campaign, Future Processing received 75 CVs and hired 13 employees. Can the storytelling used in Future Processing during recruitment be used in the company's further activities and in what way? Suggest possible solutions.

9.3.2. How has Zelmer brand made the dream of a 4-year-old boy and an old lady come true?— storytelling and customer engagement

Thanks to social media monitoring, the manufacturer of the Zelmer brand noticed in 2016 a 4-year-old boy—a fan of household appliances, especially vacuum cleaners (Głowacka, 2016). The boy's mom posted on social media a photo of a birthday cake prepared for him. It was in the shape of a Zelmer vacuum cleaner. This allowed the company to reach the user and to make her child's dream come true. Together with

his older brother and mother, the boy visited the Zelmer factory, saw how vacuum cleaners were made, received small gifts, and the company recorded a short report of this visit. The boy could therefore make his dream come true and see how his favourite devices are made in the company's factory.

The film with the boy had 40 thousand views, over 250 likes and 27 shares, with only positive comments (as of 2016). After finding the boy's mom's entry in social media, brand managers did not limit themselves simply to online congratulations for the cake-vacuum cleaner with the Zelmer logo. By organizing the visit of the child to the factory, they positively and long-lastingly strengthened the image, not only among those directly involved.

The story of an old lady whose granddaughter shared the information on the brand's Facebook that her grandmother could not imagine cleaning without her 46-year-old Zelmer vacuum cleaner is another example of consumer engagement and using it as the basis for storytelling. The producer prepared a surprise and invited both women for a photo session. Details of this event were also presented in a short video.

Both of the stories presented above, telling about people strongly engaged in the relationship with the Zelmer brand who belong to two different generations, inspired the announcement of a contest in which consumers could share their experiences with Zelmer equipment.

Questions / tasks

1. Find examples of organizations that use different sources of storytelling in their business (history of the company's founder or president, employee stories, the beginnings of the company, milestones, stories from opinion leaders, contractors, or product). If and what archetypes do they use in them?
2. Find an example of using storytelling in a company's strategy and discuss it using Joseph Campbell's concept of the Hero's Journey.
3. Discuss the use of the Joseph Campbell's concept in storytelling used in the example of *The last bottle*: <http://baczewski-vodka.pl/en/the-last-bottle/>
4. What conditions must storytelling meet to be an effective tool in employer branding strategy?
5. Evaluate the activities of the manufacturer of the Zelmer brand related to the use of consumer engagement in creating a story about the brand.
6. Watch, discuss and evaluate the use of storytelling by the Domino's Pizza. <https://www.youtube.com/watch?v=AH5R56jILag>
7. Based on the concept of Joseph Campbell, create your own story that you could use to present yourself, or your own (future) company.

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