



Teaching Digital
Entrepreneurship



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TEACHING NOTES

Casebook “How to do business in digital era?”

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Salerno-Cracow

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Teaching Notes 1: Digital transformation of a traditional sector through a University Spin-off: The case of the Beatik application

Synopsis

RevInClassic is a Spin-Off of a university, which transfers the knowledge generated on the identification of musical information to a commercial experience, concretized in an App for mobile devices for solo musicians (in a first stage) and orchestras (in a second stage), which “listens” to the music and is able to follow it in a digitized score, which makes the musician get focused on the interpretation and not on following the score, and turn its pages manually. The case shows the trajectory of the company, describes its business model, and its “death”, despite introducing a disruptive innovation in a sector that does not use IT on a regular basis.

Business issue/challenge

Similar to the digital transformation that other sectors have undergone, the identification and tracking of musical information is a great innovation, similar, for example, to the identification and understanding of the human voice. In this sense, the cases of voice-guided digital assistants, such as Amazon’s Alexa or Google’s assistant, are well known. The music interpretation sector had not yet undergone a digital transformation until Beatik entered the market. The identification of music and its tracking in the score, together with a large number of other functionalities for the management of digitized scores (organization, annotations, selection of scores in a library, score classification, import of the author’s own scores, tracking of instruments in an orchestra, personalized annotations...), has brought about a revolution in music performance and teaching, introduced by RevInClassic. Although its trajectory as a company has been ephemeral, the path it has taken is a point of reference for new companies that will be able to continue to deepen the innovations already introduced (business change).

Learning objectives

- Identify the potential of Information Technologies to improve efficiency and productivity in mature and traditional sectors.
- To identify that traditional and mature sector, which do not use IT intensively, represent an interesting market niche to create or constitute new innovative companies.
- To understand how basic research can be translated into applied research that can lead to disruptive innovations in the form of commercial products.
- To know that the creation of Spin-Off of the Universities is an option to bring the knowledge generated in R+D+i centers to the company and society.
- To identify the importance of the business model in a Spin-Off.
- Understand that the Startup world is complex, and that even with good ideas, and well executed, the chances of success are limited.

Target audience and prerequisites

Students attending majors in business management, administration, and entrepreneurship. Entrepreneurs/aspiring entrepreneurs who would like to start a new digital company or change their business model into digital by studying best practices covered in the casebook.

Suggested teaching strategy

Sessions of 60 to 90 minutes. Students read the case individually. Subsequently, a group discussion on the case is established. The teacher leads the discussion, based on the questions proposed in the case. All issues are discussed in class, as a group.

Answer to discussion questions

- 1) **Distinguish between the concepts of Spin-Off and Startup.** A Startup is a company that has a high potential for growth and scalability but is in an early stage of development. Companies, during their Startup phase, precisely because of their scalability and growth potential, need a lot of financial resources. A Spin-off is a company that arises from the knowledge previously generated in research centers. Spin-Offs are usually Startups, but not all Startups are Spin-Offs.
- 2) **Look for information on the characteristics that define the millennial generation.** This is a generation that was born in the Internet era and are accustomed to the use of technology in all areas of their lives. They are young people born since the 90s of the twentieth century, who are highly educated, have a global mindset, are used to traveling, are very independent, play sports and interact with their peers through information technology. They regularly use the Internet and the connectivity currently enabled by smartphones.
- 3) **Identify other mature sectors that have been transformed by IT-based innovations, other than the case above.** There are many examples of mature sectors that have been transformed by IT innovations. One example is the book industry. Since Amazon introduced its Kindle device, the famous digital book manager and reader, books have undergone a process of digitization and most publishers now sell both paper-based and digital versions of books. Another example is the sale of fruit and vegetables, where there are already companies that sell over the Internet, and that collect the vegetables or fruit directly from their orchards or from the tree, once the customer places the order over the Internet, and proceed to ship the product directly to the customer's home. A final example is that of passenger transport. The traditional cab service has been altered by the emergence of new business models, such as Uber, which, through the so-called collaborative economy and an App for smartphones that manages it, has revolutionized the sector.
- 4) **Identify at least one Spin-Off that has been successful in the market.** Examples of successful Spin-Offs are many. In this question, students are given the freedom to identify examples of success in their immediate area (e.g., associated with the universities where they are receiving training).
- 5) **Describe RevInClassic's business model for its Beatik APP. What other ways of monetizing Beatik could you have used?** Beatik's business model was based on initially implementing a beta version of its Android App, or minimum viable product, which it offered for free to raise awareness of its technology. It then developed a first commercial version, for soloists: Beatik Soloist, which it offered in versions for Android and Apple for six months for free, to create a critical mass of users, and later monetized through a subscription plan (40 euros per year per user). A more advanced version of Beatik for multi-instruments was later on developed, aimed at orchestras, with a customized plan to design their repertoire overrides. The business model is well designed, however, an additional possibility for the version aimed at solo musicians could have been pay-per-download.
- 6) **Reflect on why 95% of Startups fail.** By definition, Startups have a high growth potential. To achieve this growth in a short period of time, a lot of economic resources are necessary. It is common that a good idea, well executed, cannot go ahead because it does not have sufficient financial resources. In this sense, startup managers must have an in-depth knowledge of the different financing options. Sometimes, getting financing through venture capital funds can be a good option, even at the cost of the founders losing an important part of the ownership of the company. Many founders of successful startups have been forced to divest themselves of most of the ownership of the company they founded. In this sense, it is well known the case of Apple, where one of its founders, Steve Jobs, was expelled from his own company, at a certain stage, because his participation in the ownership of Apple became a minority. Other factors that can influence the failure of Startups is that their founders are usually very good scientists and/or technicians, but they haven't a background in business administration. This issue means that either they have to be trained quickly in a field of knowledge they do not know, or they have to leave the management of the company in the hands of qualified people, producing in this case a disconnection between the ownership and control and management of the company.
- 7) **Look for information on the Napster case. How did its presence affect the change in business that has taken place in the music sector? Along the same lines, how could the change in business in the music sector be affected in the future by the presence of Beatik?** Students should search the Internet for information about the Napster case. By means of a parallelism with the digitization suffered in the music sector, they anticipate the change of business that the music sector could undergo.
- 8) **How do other start-ups move forward on the innovation introduced by RevInClassic and its Beatik App?** This open-ended question is intended to get students thinking about the future, and how other companies might pick up RevInClassic's baton.

Background resources

- <https://www.youtube.com/watch?v=avKK0wru0Xc>
- <https://www.youtube.com/watch?v=joXlMZzMMcM>
- <https://www.youtube.com/watch?v=jpg05z2JuNo>
- <https://www.youtube.com/watch?v=ceIDpQx3T28>

Support material <http://theleanstartup.com/principles>

Teaching Notes 2: The leadership of Information Technology suppliers and the role of advanced people management practices in digitization; The case of DELSOL Software

Synopsis

This case study shows the innovative character of Software DELSOL, a medium-sized company, provider of Information Technology (IT) placed in southern Spain. This company develops and markets business management software. The innovation as pioneer through the Freemium business model, has enabled many SMEs customer to successfully address digitization. The innovative nature of this company is also present in people management. In this sense, the implementation of advanced practices in people management is especially useful in the contexts in which technology companies operate, where changes are very rapid, and the pace of work is frenetic. The company has implemented advanced people management practices such as exchange of opinions and ideas; active skills development; self-directed work teams; teamwork days, team sports; leisure and rest rooms; canteen services with healthy food at no cost to the employee; work-life balance; flexible working hours; intensive working hours in summer; four-day work weeks. All these practices help to creates cohesive and motivated work teams that are aligned with the organization's objectives, which has a direct impact on the company's results.

Business issue/challenge

The Freemium business model offers companies a free base product and a number of paid add-on products. Information technology providers are leading the digitization of SMEs through this model. On the other hand, advanced people management practices are especially useful in technology companies, motivating employees, improving their quality of life, and encouraging their involvement (engagement) and aligning them with the objectives of the company. These practices are also an element of talent attraction.

Learning objectives

- Identify the importance of innovation in digital business.
- Distinguish organizational innovations from other types of innovation
- Understand the Freemium business model
- Identify advanced practices in people management, and their importance and implications
- Understand the implications of implementing these advanced practices in people management

Target audience and prerequisites

Students attending majors about business management, administration, and entrepreneurship. Entrepreneurs/aspiring entrepreneurs who would like to start a new digital enterprise or change their business model into digital by studying best practices covered in the casebook.

Suggested teaching strategy

Sessions of 60 to 90 minutes. Students read the case individually. Subsequently, a group discussion on the case is established. The teacher leads the discussion, based on the questions proposed in the case. All issues are discussed in class, as a group.

Answer to discussion questions

1. **Explain what is the concept of innovation, how is the innovation of Software DELSOL shown in this case? Look for information on the types of innovation. What type of innovation is shown in the case?** Innovating is generating an idea that is perceived as new by the adoption unit (individual or organization). DELSOL Software innovated by introducing the Freemium business model when it was not yet a recognized model. Also, through the implementation of advanced practices in people management. In the case, innovation in products, processes and organizational innovation is also observed. In addition, incremental innovation can be identified through small changes and radical or

disruptive innovation through large changes. The innovation identified in the case of Software DELSOL is an organizational and radical innovation.

- 2. Find information and explain what the Freemium business model is. Illustrate it with examples other than the case analyzed.** The word Freemium comes from the union of two words: free and Premium. The idea is to offer a free product to one group of customers and a complementary paid product to another group that is willing to pay for what is offered to them. There are several examples of this model such as the App's for smartphones with basic functionalities that also offer a paid version with expanded functionalities.
- 3. Identify the different components of the DELSOL Software business model over time. Explain where its revenues currently come from (how value capture is performed).** In its first stage, Software DELSOL offers free business management applications, and telephone support services on a pay-per-consultation or subscription basis. In a second stage, it introduces data storage for these products on a pay-per-subscription basis. Finally, it introduces products in the cloud (CLOUD 10) that are offered in a Software as a Service environment, on a pay-per-use basis (depending on the number of users or the number of transactions performed).
- 4. Explain why with the Freemium Software model DELSOL has democratized the use of IT in SMEs.** Because it has made powerful management software available to SMEs, which generally have limited resources, free of charge, facilitating the digitization of this type of company.
- 5. Identify all the advanced people management practices that DELSOL Software applies. What other practices could it apply?** The company has facilities for the practice of team sports, such as football, basketball, and paddle tennis. It also has a climbing wall and a gym. On Friday afternoons there is no work, and the employees meet at the pool in a relaxed atmosphere. There are areas with sofas for more informal gatherings and relaxation areas. The company offers a healthy dining service that is free for its employees. In addition to these activities, the company has continuous training programs, suggestions. It favors interaction and the exchange of opinions between employees. It also promotes self-directed work teams. With regard to human resources conciliation policies, the company offers scholarships, health insurance and allows teleworking. Software DELSOL was one of the world's pioneers in implementing a four-day work week in January 2020 for its 181 employees.
- 6. Explain how it is possible that by working four days a week, the company's sales increase and the productivity of the employees is also higher.** There is a debate on this issue in today's society. Workers who work fewer hours can make better use of their time, which will translate into higher productivity. In addition, by being more rested and with lower levels of stress, they will improve their performance in their job. Finally, workers who have more free time will tend to consume more in that time, so the economy, in general, can benefit.
- 7. Explain the interrelationship between digitization and continuous improvement and find a related example.** Digitization can be seen as a process of continuous improvement, in which more value is delivered to the customer. Continuous improvement seeks to change to improve the daily management of the company and increase customer satisfaction. Digitization aims for processes to be carried out in less time, using fewer resources or in a more flexible and simple way. For this, it is supported by digital tools that constitute an important pillar of continuous improvement. However, the digital tools used must be continuously reviewed to determine if they still meet the requirements and if they are generating value for customers. An example could be Walmart, which has used digital transformation to deliver more value to its customers by streamlining and facilitating shopping for its customers. The company has been steadily investing in digitizing all aspects of its business – from supply chain to sales, customer service and in-store operations to simplify processes and drive operational efficiency. The digitization of its supply chain has enabled the company to serve customers through online, mobile, and in-store interactions to make them feel that their shopping experience is pleasant, personalized and offered at great prices.
- 8. There are many IT providers that use a different business model. Look for information about Fujitsu, its business model, and its people management practice, and compare them with those of Software DELSOL.** This is an open question for students to search for information and compare it with the case. As a general guideline, we can say that Fujitsu is a multinational company in the IT sector that has a very different business model to Software DELSOL. It markets its own and third-party software products on a pay-per-license basis and develops customized products with its own technology. It is a large company, with hundreds of thousands of employees around the world. However, it also has talent management practices, and advanced people management practices. Although these practices are not as deep as those of Software DELSOL. It is a large and traditional company in the IT sector and that makes

its movements slower. For example, they do not have a five-day work week. Nor does it have gymnasiums or rest areas in its offices.

Background resources

- Videos Software DELSOL: <https://www.sdelisol.com/veo-delsol/>
- What is innovation? <https://www.youtube.com/watch?v=IiyMkOfycOg>
- Best Practice HR Tips from Liane Hornsey, Google VP Operations: <https://www.youtube.com/watch?v=FRsJbpppvEU>

Support material

- www.sdelisol.com
- www.sdelisol.com/veo-delsol/
- Microsoft experimented with a 4-day workweek, and productivity jumped by 40%: <https://www.businessinsider.com/microsoft-4-day-work-week-boosts-productivity-2019-11>

Teaching Notes 3: LIDERKIT S.L. – Digital transformation in bodyworks manufacturing

Synopsis

This case analyses the digital transformation process of a manufacturing industry, LIDERKIT S.L., which is mainly dedicated to the manufacture of bodies installed using kits. LIDERKIT S.L. stands out for its powerful investment and development in R+D+i, which allows it to obtain increasingly advanced products and personalized designs, always following the client's instructions. In this sense, the company has developed and is immersed in several research projects with public and private entities, achieving positive results, thus demonstrating the spirit of improvement of the entire workforce.

In addition, LIDERKIT S.L. has established a philosophy of total customer service, manufacturing its customized products in a short period of time thanks to the variability of approvals and the vertical integration of its production. Therefore, we are facing a company that is committed to continuous improvement and that could undertake a process of digital transformation of its entire production process with sufficient guarantees. In addition, there is a firm commitment to increase its production volume and face new challenges.

Business issue/challenge

LIDERKIT S.L. is a leader in the sector and is experiencing considerable growth in its production volume, in addition to considering the development and manufacture of new fully customized products for its customers, betting on sustainability and the optimization of the bodies that currently manufacture. Both the increase in the volume of manufacturing and the introduction of new products is generating some setback in the manufacturing system, so, together with the current moment of digital transformation of production processes, makes the company decide to undergo a process of digital transformation. To do this, it hires the services of a consulting company to initially measure the level of digital maturity and, based on the results obtained in the five dimensions studied, undertake a digital transformation plan.

Learning objectives

After discussing this case, students will be able to:

- understand the potential business impact of disruptive technologies such as cloud computing, big data, additive manufacturing, and collaborative robotics.
- assess the impact of digital transformation on the industry and the benefits derived from it.
- analyse the business strategies of the company in response to the potential opportunities and threats of emerging technologies.
- evaluate the incorporation of new business models analyzing their sustainability and the activity of the competition.

Target audience and prerequisites

This case has been developed so that it can be analyzed by university students in the field of business management, economics, or entrepreneurship, both at the undergraduate and postgraduate level. At the same time, due to the content analyzed in it, it can also be useful for engineering students specialized in the digital transformation of industry, ICT, or industrial organization. In this sense, to be able to make a complete analysis of the case, the users of the same should have previous knowledge in business administration, new business models and application of enabling technologies in the digital transformation of the manufacturing industry. Finally, it could also be analyzed by entrepreneurs who want to start a new digital company or change their business model to digital.

Suggested teaching strategy

The teaching strategy can be structured in sessions of 60 to 90 minutes. Students read the case individually and then a group discussion takes place on the issues raised in the case. The teacher leads and moderates the proposed debate, which is structured based on the proposed questions.

Answer to discussion questions

1. Considering the structure that a Digital Transformation Plan must have, how should this company structure its transformation plan? The digital transformation plan is described as a multi-step journey:

The digital vision of the company must be defined, the objective to be reached after the transformation. Also, it will try to create a need by putting digital as a priority on the company's agenda, keeping in mind that true transformation is only possible from the top management because, only from there, the synergies resulting from digitization in different departments or units can be taken advantage of. In this phase, the starting situation must be identified and understood through an initial diagnosis of the level of digitization in the company. It will try to understand the strengths and weaknesses by identifying strategic assets and evaluating their importance in the digital world.

- The defined objectives and vision will be transferred to an action plan built from a portfolio of integrated projects in different work areas that allow progress in parallel in several of the relevant areas. The key point is the identification of projects that have an associated investment budget and can be staggered over time according to the possibilities and capabilities of the company.

- It is necessary to transfer to the organization the will to work the digital path and do internal and external marketing of it. In this sense, it is convenient to clearly explain the advantages that the different units of the company will obtain from the transformation process and use all possible communication channels, opening up possibilities for interaction and the collection of suggestions. In short, it is about orienting the company's own culture towards digital and innovation by changing the way of working and reinforcing the training and incorporation of new digital profiles to the company.

- The implementation of digitization projects must be aimed at reducing inefficiencies and mitigating financial and operational risks, bearing in mind that a long-term approach towards complete digital transformation must be combined with the use of opportunities in the short term. In any case, it will be necessary to define an organizational model that supports the process, planning investments and managing the portfolio of projects.

To carry out its digital transformation plan, the company has the advantage of being advised by the ACTIVA Industry 4.0 plan, financed by the Government of Spain. Its Digital Transformation Plan has been structured in the following phases:

- Conclusions of the initial diagnosis.
- Industry 4.0 opportunities identified.
- Prioritized opportunities.
- Best Practices.

2. Considering the application of enabling technologies, how could the company solve the problem of receiving material and identifying parts during the manufacturing process? Considering the wide variety of disruptive technologies that are available to companies, there may be several solutions to this problem. Then the following solutions could be considered:

- The company could digitize the main products (scanning, graphic design tools, digital twin, etc.) to streamline technical aspects with suppliers and customers, and additionally be able to configure the product for the customer.

- Collaborative platforms (Cloud Computing) could be established to make decisions and exchange information in real time. At the same time, information exchange tools could be developed between clients (B2C) or between companies in the sector and suppliers (B2B).

- From a general point of view, it would be positive to integrate suppliers in digitization processes and in aspects of Industry 4.0.

- With regard to product identification, it would be advisable to use self-identification technologies (RFID, RTLS, QR codes, etc.) that allow locating, detecting, and controlling the status of objects and resources within the organization.

3. What aspects should the company contemplate when sharing data with suppliers and customers? Would it be a good idea to share data with competitors? As mentioned in the previous question, it is quite useful to establish collaborative platforms with suppliers and customers, since it increases the competitive advantage of the company with respect to the value generated by the data and the anticipation that can be generated in decision-making.

However, we should not overlook the legal and intellectual property issues that exist associated with this shared information. To do this, an adequate cybersecurity system must be generated so that the data is fully protected and there are no problems when sharing it. On the other hand, we must not forget the legal challenges that the implementation of Industry 4.0 entails, which go far beyond the scope

corresponding to the protection of personal data, affecting fields such as intellectual property in technology transfer.

Cooperation agreements between competitors, both in the same sector and between sectors, can be an element that allows the development of digital transformation. A legally regulated competition model would favour cooperation between companies and, in particular, between companies at the same stage of the value chain.

- 4. The production manager in the company needs to identify the priorities of the manufacturing process and communicate them in real time to the employees. How could this situation be solved from a digital point of view?** As mentioned above, there may be several solutions to solve this real situation of the company. After the last meeting held with the production manager and the head of the engineering department, the company is considering installing screens (which could be tactile to interact with information, work orders, etc.) in certain phases of the manufacturing process, so that both department managers and workers can make decisions on the spot. A next phase in the company's digital transformation process could bet on the acquisition of smart devices associated with virtual / augmented reality, so that it is not necessary to have to check the status of processes, equipment, or products elsewhere.
- 5. What are the differences between the two methods of measuring the level of digital maturity used?** The academic world and professionals have developed assessment tools (Industrie 4.0 Maturity Index, "Maturity Model for Assessing Industry 4.0 Readiness, Maturity of Manufacturing Enterprises, The Connected Enterprise Maturity Model, Smart Manufacturing System Readiness Level) that aim at self-assessment within of analytical frameworks to evaluate conditions or analyse them interactively with the framework developers. A model can be an evaluation tool that results in a formal description of a given system, for example, a manufacturing system, an organization, a manufacturing process, or a machine. The maturity and preparation models are mainly fed by dimensions that represent thematic groups, constructed with numerical indicators, and extracted from the information collected from the given system. GrowIn 4.0 originates from a research project and aims to develop skills and tools in the participating regions for the benefit of manufacturing SMEs. The focus is to establish a strong partnership that brings together knowledge about the manufacturing industry and Industry 4.0. This tool covers aspects of digitization, regulatory considerations, and preparation of a company. It is grouped into five dimensions: business models and products, market and customer access, value chains and processes, legal consideration and cyber / IT security, and Industry 4.0 strategy and experience. This digital maturity measurement tool does not generate a report that indicates the initial diagnosis of the company, the digital transformation plan, or the priority opportunities that the company must face. On the other hand, HADA is a tool for measuring the level of digital maturity that is used at a national level (Spain), defined by six levels of maturity that establish the degree of implementation of Industry 4.0 in organizations and the point at which they are in the process of digital transformation. HADA analyses 16 different areas (which are shown in the study of the case under study) that correspond to 5 organizational dimensions of companies: market strategy, processes, organization and people, infrastructures, products, and services. From an initial assessment point of view, it analyses in more detail the dimensions on which the study of digital maturity is based.

Background resources

- LIDERKIT S.L. exceeds 3,000 bodywork units for Covey industrial vehicles: <https://elmercantil.com/2021/07/26/liderkit-supera-las-3-000-unidades-de-carroceria-para-los-vehiculos-industriales-de-covey/>
- LIDERKIT S.L. accelerates its growth with Germany as its first market: <https://www.liderkit.com/wp-content/uploads/2016/03/expansion.pdf>
- Magazine "Professional transport" (p. 84): <https://www.transporteprofesional.es/publicaciones/mayo/assets/common/downloads/publication.pdf>
- Report to LIDERKIT S.L. in El Exportador de ICEX: https://youtu.be/2Exarv_RAOg
- LIDERKIT S.L. leads from Jaén (Spain) the manufacture of vehicle bodies: <https://youtu.be/3OEnV5Pv7h4>
- Export in LIDERKIT S.L.: <https://youtu.be/iwU3dLIFuBI>

Support material

- LIDERKIT S.L.; <https://www.liderkit.com/liderkit-group-en-los-medios/>
- LIDERKIT S.L., made only for you: <https://youtu.be/GMiMyxpF8fA>

- Digital transformation in the manufacturing industry: challenges and accelerators: <https://www.i-scoop.eu/digital-transformation/digital-transformation-manufacturing/>
- ACTIVA Industry 4.0: https://www.industriaconectada40.gob.es/programas-apoyo/Documents/EOI_FOLLETO_INDUSTRIA_2020_15-10-2020_2.pdf
- Landeta Echeberria A. (2020) Digital Transformation Strategy Framework. In: A Digital Framework for Industry 4.0. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-60049-5_5
- Correani, A. et al. (2020) 'Implementing a Digital Strategy: Learning from the Experience of Three Digital Transformation Projects', California Management Review, 62(4), pp. 37–56. doi: 10.1177/0008125620934864.

Teaching Notes 4: DIYA.BUSINESS

Synopsis

DIYA.BUSINESS online platform is a portal that helps entrepreneurs to create, develop and scale their business. There are more and more active users on the DIYA.BUSINESS online platform every hour, because the range of services that participants receive is constantly expanding: free consultations for future and current entrepreneurs, business support centers, national online school for entrepreneurs, services and opportunities, self-testing for entrepreneurs, guide for entrepreneurs, online exhibitions and events for entrepreneurs, map of business support infrastructure, 100+ ideas for starting your own business, entrepreneur's path, entrepreneur's manifesto, cases and news, partner offers, business without barriers, free online consultations from leading international business experts through the global marketplace OnFrontiers, 360 Tech Ecosystem Overview, etc..

Learning objectives

- Investigate the history and background of the DIYA online platform.
- Identify partners to support the development of digital entrepreneurship.
- Describe the specifics of the OnFrontiers platform of DIYA.BUSINESS portal.
- Outline promising opportunities from the use of consultations on DIYA.BUSINESS portal.
- Analyze the criteria for selecting an enterprise to participate in the state support program on the OnFrontiers platform of DIYA.BUSINESS portal.
- Learn about the stages of preparation for the process of obtaining advice from entrepreneurs on the basis of the OnFrontiers platform of DIYA.BUSINESS portal.

Target audience and prerequisites

The target learning groups are the following: undergraduate, graduate, or current students, entrepreneurs.

Suggested teaching strategy

Students read the case on their own behalf. Trigger questions to open the case discussion:

- What do you know about the world experience of using virtual platforms to support the development of digital entrepreneurship?
- Does the use of online platforms for the provision of public business services create more opportunities or risks in the direction of digital entrepreneurship?

Ideas for group work:

- discussion on a topic "Digitization of public services to modern entrepreneurship".

Learning can be consolidated at the end of the case session.

Answer to discussion questions

1) Is there any real reason to believe that since the creation and "launch" of DIYA.BUSINESS portal today we can summarize its success in the practice of digital entrepreneurship? As of January 1, 2022, DIYA.BUSINESS portal has more than 1 million users who will be able to use a wide range of various services and receive qualified assistance. Now entrepreneurs have the opportunity to develop their business on DIYA.BUSINESS portal (register for a business consultation online at DIYA.BUSINESS or in your city at the DIYA.BUSINESS center; find out about EU support programs; contact the MEREZHA platform or the EBRD network of business support centers in Ukraine from Ukraine; invite a German expert from the Senior Expert Service (SES) to solve practical problems in business or become a social entrepreneur); to diagnose business; receive financial support (available loans 5-7-9%, donor and budget programs, tools for successful financial management); to participate in the grant support program (EU Horizon 2020, EU Eureka, funding for the creation and development of social entrepreneurship, in particular from WNISEF, startup in 3 months with YEP Starter, voucher for free analysis of innovative enterprise development compared to similar enterprises in the EU); find investors (on Startup Network, Dealroom, BePartner, crowdfunding on Shared Cost and on Kickstarter);

find and check partners, etc. These and many other initiatives have already become a reality and accessible to Ukrainian entrepreneurs.

- 2) **Are there other powerful online business support platforms today besides the OnFrontiers marketplace that has similarly successful hands-on projects?** For example, other online business support platforms are successfully operating in the world, including the personal map of business growth on the online platform of expert solutions MEREZHA, the EBRD online platform EU4Business, which offers five guides to translating business into digital format.
- 3) **What can an entrepreneur get as a result of online consulting from professional experts on DIYA.BUSINESS portal? What risks await the entrepreneur as a result of digitizing the business?** DIYA.BUSINESS online portal helps start-ups to decide on an idea, get financial and legal support, find investors and partners, reach the international level, get acquainted with the latest news in the field of accounting and taxation, conduct electronic document management and project management, protect intellectual ownership and form your brand, explore franchising opportunities, etc. Among the risks that may befall Ukraine's entrepreneurship in the context of digital transformation, the main ones are the low level of trust of entrepreneurs in the state and its state structures, mental unpreparedness and fear of Ukrainians for radical change, digital incompetence.
- 4) **There are always certain conditions and requirements for the work of an entrepreneur on various portals and platforms. What are the criteria for an entrepreneur to participate in the counseling program on DIYA.BUSINESS portal?** The criteria for selecting participants of the consulting program of the DIYA.BUSINESS portal are: Integrity of the entrepreneur; The entrepreneur seeks advice from experts in order to obtain a new or specific business opportunity for the business that will lead to any of these results; Entrepreneur and his staff know English fluently in writing and orally for easy communication with OnFrontiers experts; The company will provide information on business results 6 and 12 months after participating in the program.
- 5) **How can you assess the sequence of selection and consultation based on the OnFrontiers platform of DIYA.BUSINESS portal? How easy/difficult, fast/long, transparent/veiled, expensive/cheap, open/closed, etc. the process is?** Selection and consultation on the basis of the OnFrontiers platform of the DIYA.BUSINESS portal is quite clear and transparent, fast and open, easy and cheap, and takes place in 9 stages: application; agreement with the terms of the initiative and processing of personal data; consideration of the application of the entrepreneur and decision-making on the inclusion or non-inclusion of the enterprise in the initiative; in case of a positive decision, the entrepreneur receives a letter with further instructions; the entrepreneur's application is passed to the managers of the OnFrontiers marketplace; the manager helps to clarify the request to consultants; the entrepreneur agrees on the time of consultations; the entrepreneur receives online consultations, leaves feedback and gets access to the voice recording of the conversation with the consultant; the organizers of the initiative contact the entrepreneur in about 6 and 12 months in order to get feedback and a better understanding of how consulting has affected business development.
- 6) **Do you know the success stories of the practical use of OnFrontiers services in digital business?**
Success stories and examples of OnFrontiers consultations:
 - A company in the market of animal feed in Nigeria. OnFrontiers experts helped to obtain information about the local poultry market, local market and culture, local feed markets, including drivers, structure, key players, industry dynamics.
 - Satellite Communication Solutions Project in Angola. The customer evaluated the possibility of providing satellite solutions for the state, such as disaster management, e-health and rural communications. OnFrontiers experts helped link ICT issues in Angola, brainstorm current and future government initiatives that can be provided through satellite, and industry factors that may be needed to bring new entrants to market.
 - A financial company that provides payday loans in 11 markets in Africa and Latin America. OnFrontiers experts used which teams should conduct research on regulatory policy and the risks associated with the provision of credit to the salary, as well as salary requirements for borrowers.
 - Solar Energy Project in Costa Rica. OnFrontiers experts helped to influence the impact of current / expected regulation, policies and economic factors of large-scale distributed solar generation in Costa Rica, as well as how the market may develop in the future, such as tariff structure, energy pricing, constraints.
 - Geothermal Energy Project in East Africa. OnFrontiers experts helped identify energy and renewable energy sectors in Ghana, Nigeria and Kenya.
- 7) **Is it necessary to create DIYA.BUSINESS Centers in cities within the framework of digital**

transformation of entrepreneurship? If so, how many such centers are needed and what functions should be assigned to them? Justify your opinion. In order to strengthen the activity of the online platform DIYA.BUSINESS and get closer to the entrepreneur, the opening of DIYA.BUSINESS Support Centers in the cities is justified and appropriate. As of January 1, 2022, 11 such Entrepreneurship Support Centers have been opened in Ukraine. An entrepreneur or one who dreams of becoming one can get free consulting services in such centers, knowing about the availability of grants, receive training in free trainings and workshops. Today, each such center has its own website, which allows entrepreneurs to stay up to date with the latest news and close to one click.

Background resources

- References to relevant supplementary material on the case or related issues:
- Free online consultations for Ukrainian entrepreneurs from leading international business experts through a global marketplace OnFrontiers (2021). URL: <https://business.diaa.gov.ua/cases/iniciativi/onfrontiers> (accessed 21.08.2021).
- DIYA (service) (2019). URL: [https://uk.wikipedia.org/wiki/Дія_\(сервіс\)](https://uk.wikipedia.org/wiki/Дія_(сервіс)) (accessed 22.08.2021).
- DIYA.BUSINESS (2021). URL: <https://business.diaa.gov.ua> (accessed 04.10.2021).

Teaching Notes 5: “Monobank” – Ukrainian virtual bank

Synopsis

Digital transformation is a strategic direction for banks' development. Banks leverage technological innovation to shape new business models and produce products to generate new revenue streams and create value. The dynamic development of entrepreneurship is impossible without the active role of the banking system. This case is about Monobank which is the first mobile bank in Ukraine. Monobank provides service without branches, almost all services are provided via a mobile application.

Business issue/challenge

With the spread of information technology, the order of interaction with the end user of banking services is changing. Today you do not need to contact the bank branch for basic operations. Instead, more and more banks offer customers a number of additional services the use of which strengthens customer loyalty and provides competitive advantages to banking institutions. The challenges and shortcomings of virtual banking are identified as follows: difficulties in registering a new client and navigating the site; trust in the virtual world of financial services; lack of proper level of financial literacy; the presence of risk factors associated with spyware and viruses; the problem of business evaluation, etc.

Learning objectives

- to get acquainted with changes in the financial sector generated by the digital revolution
- to understand the digital transformation of finance
- to identify key digital technologies in banking
- to know types of innovative banking products
- to define the main features of Monobank for entrepreneurship
- to indicate the basic components of the digital bank.

Target audience and prerequisites

The target learning groups are the following: undergraduate, graduate, or current students, entrepreneurs.

Suggested teaching strategy

Students read the case on their own behalf. Trigger questions to open the case discussion:

- why modern banks are embracing new orientations and innovations?
- how bank standard business model is changing with a growth of digital transformation?

Ideas for group work: discussion on a topic “*From classical banking to digital...*”

Learning can be consolidated at the end of the case session.

Answer to discussion questions

- 1. What are the differences in the organization of traditional and virtual financial (banking) institutions?** The modern banking sector offers many innovative concepts that combine the interaction of virtual and physical worlds in order to build their own business model and more efficient customer service. The future of banking - for institutions located in cyberspace. Such institutions identify themselves as retail banks that operate exclusively on a digital platform and are designed to compete with traditional financial institutions. Over the last ten years, there has been a revival in the field of virtual banking in European countries. The key provisions for launching a digital bank include architecture and operating model, products and services, sales channels, system operation, cybersecurity, and finance.
- 2. What are the benefits of digital businesses serving in digital banks?** The advantages of virtual banking for the founders and clients of such institutions are the following: convenient way of conducting banking operations, reliability, efficiency, no need to form a network of branches and staff, etc.
- 3. What are the challenges for digital businesses as a result of working with a virtual bank?** The challenges and shortcomings of virtual banking are identified as follows: difficulties in registering a new

client and navigating the site; trust in the virtual world of financial services; lack of proper level of financial literacy; the presence of risk factors associated with spyware and viruses; the problem of business evaluation, etc.

4. Is the virtual bank an important component of digital economy? One of the key elements of the functioning of the economy of any country are banks which ensure the redistribution of financial resources and stimulate economic growth. However, the banking sector like other activities is dynamic and depends on the pace of development and forms of technological progress that affect the forms and types of information and digital technologies as well as the globalization and remoteness of banking services. Accordingly, the need for effective implementation of the latest technologies becomes relevant which will not only help increase consumer satisfaction with the banking product but also ensure the development of the country's financial sector.

Background resources

- Kou, G., Akdeniz, Ö., Dinçer, H. & Yüksel, S. (2021). Fintech investments in European banks: a hybrid IT2 fuzzy multidimensional decision-making approach. *Financ Innov* 7(1), 1–28.
- Thakor, A.V. (2020). Fintech and banking: What do we know? *J Financ Intermed*, 41(100833).
- Liu, FH., Norden, L. & Spargoli, F. (2020). Does uniqueness in banking matter? *J. Bank Finance*, 1201(05941).
- Williams, MD. (2018). Social commerce and the mobile platform: payment and security perceptions of potential users. *Comput Hum Behav* 115(105557)
- Vishnu, S., Agochiya, V. & Palkar, R. (2017) Data-centered dependencies and opportunities for robotics process automation in banking. *J Financ Transf*, 45(1), 68–76.

Support material

Include links to video and audio clips that are relevant to the case:

- <https://www.monobank.ua/>
- <https://www.youtube.com/watch?v=sWznkI7G1d8>
- <https://www.youtube.com/watch?v=nGK3LkPx5vA>

Teaching Notes 6: Work from Bed – not only a marketing agency

Synopsis

The notes presented here concern a social enterprise, a marketing company using the legal form of a business foundation and employing people with physical disabilities. Digital technologies allow for this.

Business issue/challenge

The student will become an entrepreneur and must decide about the future of the foundation. Students' tasks will include:

- To carry out an analysis of the situation of the foundation acting in a highly competitive sector and employing physically disabled people.
- To propose solutions aimed at solving operational problems (workload, communication),
- To propose a long-term strategy for an enterprise focusing on obtaining both business and social goals.

Learning objectives

The main learning objectives will be to rise the students' attention to the issue of the inclusion of people with disabilities to the labor market and to the challenges originating from working with disabled employees. Among specific objectives will be:

- Acknowledgment of the importance of modern technologies in activating socially vulnerable people,
- Identification of technologies which may be used for activation for people with physical disabilities,
- Drafting the long-term strategy for Work from Bed

As a result of the case, students will be equipped with the following skills:

- The ability to carry out an analysis of an enterprise working in a highly competitive environment but at the same time realizing social goals and important social mission
- Ability to build alternative solutions regarding usage of modern hardware and software to make disabled people active on the labor market
- Ability to draft a long-term strategy for a social enterprise Understand that the Startup world is complex, and that even with good ideas, and well executed, the chances of success are limited.

Target audience and prerequisites

The case can be used by management, entrepreneurship, public policies, administration, and sociology students on both bachelor and master levels. Setting the scene:

Since the case deals with disabled employees, it is suggested to make an introduction to the problem of disabled individuals in a given country, in general and in the labor market in particular. Here the scope of the problem, the main determinants of an effective system of inclusion of disabled people, existing problems, and challenges as well as specific needs of disabled should be covered. Such an introduction can be made either by an instructor or by students (work in pairs or in groups – the task communicated in advance).

Parallel to this could be a task to gather information on the various supportive technologies developed for and used by disabled people. Students in pairs or in groups could choose applications, technologies, and hardware they consider as the most suitable for social inclusion of disabled or/and socially vulnerable individuals. Students can also propose other – non existing yet – applications and technologies

Suggested teaching strategy

An introduction to the economic and social dimensions of the disabled people in national economies seems to be necessary. Cooperative learning – students work together to prepare the answer to the problem question and present the found solution.

Inquiry-based instruction – it is also possible to interact with students within posted questions and provide them partial tasks which will guide them towards solution. In this strategy the role of the teacher is more active compared to cooperative learning.

Answer to discussion questions

1. **How would you design an internal communication system in a company based on remote working?** Apart from mastering the existing online-based system (here may be several propositions from the students), it is reasonable to consider regular face-to-face meetings.
2. **What is the importance of modern technologies in activating socially vulnerable people?** Students will be informed in advance to search for examples of various ways the modern technologies may help disabled people to interact with the society at large (including the labor market). It will be important to distinguish between *assisting* disabled persons with social contacts and *allowing* the disabled individuals to do this (based upon the examples presented by the students).
3. **What technologies around you may be used for activation for people with physical disabilities, in your opinion?** While the previous question is aimed at more general issue, here the students are expected to identify specific technologies (devices, applications, etc.). It is also place here for a science-fiction kind of proposals.
4. **What could be the main traits of a long-term Work from Bed strategy?** Here the issue of working together with public administration and public enterprises (along with the third sector organizations) should be noted and underlined (appreciated).

Additional questions to stimulate discussion:

1. **Is there a place for social enterprises in our highly competitive world?** The answer to such a question can be formulated using a classic oxford debate (and here appropriate rules apply).
2. **What Work from Bed should do to survive and develop?** The question can be asked either before posing the main question no. 4 or after. In the first case the students may identify some directions which could be further developed when answering question no. 4. It can also be asked when the answers to the question no. 4 are known – in this case the students may develop further their general proposals.
3. **What can/should we do to have a more inclusive social policy?**

Data analysis

The case contains exclusively qualitative data (4 in-depth interviews with representatives of the Work from bed Foundation conducted in July 2021 r.)

Background resources <https://lezeipracuje.pl/en/>

Support material

- An inclusive digital economy for people with disabilities. (2021). International Labour Organization, Fundación ONCE, Disability Hub Europe for sustainable growth and social innovation. https://www.ilo.org/wcmsp5/groups/public/---dgreports/---gender/documents/publication/wcms_769852.pdf (10.10.2021).
- Beño, M. (2021). The Advantages and Disadvantages of E-working: An Examination using an ALDINE Analysis. *Emerging Science Journal*, 5, 11–20.
- <https://doi.org/10.28991/esj-2021-SPER-02>
- Disability and development report: Realizing the sustainable development goals by, for and with persons with disabilities: 2018. (2019). United Nations. <https://social.un.org/publications/UN-Flagship-Report-Disability-Final.pdf> (10.10.2021).
- European Commission. Directorate General for Employment, Social Affairs, and Inclusion. (2020). Social enterprises and their ecosystems in Europe: Comparative synthesis report. Publications Office. <https://data.europa.eu/doi/10.2767/567551>

Teaching Notes 7: Artificial Intelligence facilitates customer experience. Example of Getdressed

Synopsis

The analysis presented here concerns Getdressed, a company operating in the tech-fashion industry and offering AI-based solutions to support online sales.

Details of the protagonist – Getdressed is a startup offering 2 working solutions to the market:

(1) The core product is a plugin – an AI-based recommendation algorithm. In this case, Getdressed offers it to large e-commerce companies; (2) The second product is “Showroom” – a sales platform for smaller manufacturers, so-called niche brands.

The role of digital in the case – In this case, digital technology – AI solutions – is the main product offered by the company in the market.

The company planned to develop an advanced product combining recommendation tools using AI to suggest what cloths to buy next, matching existing outfits. The AI was to use knowledge drawn from an extensive tool based on social media, style, and preferences of others, mainly fashion patterns and recommendations from friends and other shoppers. The tool was to present both the clothes and model the figure in different sides in 3D.

Entering the market and coming into contact with the real expectations of the market and potential consumers radically changed the approach to the product and the potential offer of the company. The company firstly radically changed product and secondly changed the business model.

The product is currently developed in 3 versions:

1. The core product is a plugin – an AI-based recommendation algorithm. In this case, Getdressed cooperates with a large e-commerce company
2. The second product is “Showroom” – a sales platform for smaller manufacturers, so-called niche brands.
3. The third product – still under development is an application for individual customer.

The company is currently in the product development and testing phase. The biggest challenge today is to pass the next development stages.

Business issue/challenge

The student will become an entrepreneur and must face the challenges of operating flexibility, managing, and planning the development of a business offering an AI product to the market.

Students’ tasks will include:

1. To carry out an analysis of the situation, using the Lean Canvas model, of an enterprise offering a digitally advanced product from the perspective of successful operation in the market.
2. To find and propose a different way of development of the product, the target customer, and the key activities of the company (e.g., in terms of sales).
3. To analyse the company’s situation – to find weaknesses and propose solutions to strengthen and stabilise the business model. e.g., develop procedures for dealing with product changes requested by the customer.

Learning objectives

The main learning objectives will be to equip students with the knowledge and skills to create and develop a business. The reference point will be market requirements and customer expectations. Each task will fit into Bloom’s taxonomy. The first stage will be the construction of knowledge, followed by its understanding combined with the ability to use it. Next, the task will be subject to analysis (verification of results) and interpretation. The task will conclude with a summary and evaluation and the presentation of generalized conclusions (synthesis).

As a result of the case, students will be equipped with the following skills.

1. The ability to carry out an analysis of an enterprise offering a digitally advanced product from the perspective of successful operation in the market. The Lean Canvas model will be used to analyse the internal situation of the company. Upon completion of this case, the student will possess the following specific skills.

- Skills in applying the Lean Canvas model
- Ability to assess and match company resources with a given analytical model.
- Ability to define problems and challenges in the enterprise development process.

2. Ability to build the company's flexibility potential. By matching the vision of the product and the enterprise to the expectations of customers and market conditions – preparing for the clash of dreams with market reality.

- To be able to identify alternative ways of enterprise development, e.g., changes in product application, changes in business model, changes in the way of selling, etc.

- To be capable to define the strengths and weaknesses of given business models chosen by the Getdressed company and to look for solutions (ways of action) appropriate to each of these models.

3. Ability to introduce internal balance based on awareness of the need to build a stable internal structure of the company as a prerequisite for further development.

- Ability to form a balanced internal structure of the enterprise. Presentation of the company's structure in terms of problems and description of what a given department/cell should deal with (description of tasks, decision-making, competences).

- Ability to create solutions, procedures stabilising the internal activities of an enterprise operating in the AI sector. Preparing a procedure of two-way action, e.g., a customer reports a problem with the operation of an algorithm, passes through the customer contact department, technical department, returns to the customer service department and provides the customer with a corrected version. Developing the procedure, explaining which path the product follows, who is responsible for which stage. Defining the framework of actions and responsibilities of persons/departments in the company within 1 or more processes.

Target audience and prerequisites

Students taking courses in business management, administration, and entrepreneurship. Bachelor level, but also master level.

Suggested teaching strategy

Cooperative learning – students work together to prepare the answer to the problem question and present the found solution.

Inquiry-based instruction – it is also possible to interact with students within posted questions and provide them partial tasks which will guide them towards solution. In this strategy the role of the teacher is more active compared to cooperative learning.

Answer to discussion questions

Include a list of questions designed to promote discussion of the key issues within the case:

1. How a Getdressed business model can be described? The student's task is to complete the canvas business model, omitting two headings: revenue structure and cost structure. The task can be performed in pairs or groups. Before starting the task, the teacher can talk about the shape and usefulness of the lean canvas model.

A proposal to present the topic to students:

The establishment of a successful business is a process that can be learned. For this purpose, we employ a lean canvas created by Ash Maurya as his proposition suits better for young, developing companies. Lean canvas is adjusted Business Model Canvas proposed by A. Osterwalder which is very popular in describing companies. Ash Maurya's goal was to develop a business model that would combine the lean startup model with the structure of a business model canvas. The lean method is a reversal of the way you think about starting a business. Most novice entrepreneurs spend a lot of time fine-tuning a product before launching it. It turns out that using this traditional approach, startups are more likely to be rejected by the market for their products and therefore to failure. It is worth entering the market with an underdeveloped product and allowing your clients to actively participate in its formulation. Product testing by customers is carried out according to a strictly developed action plan. After each stage, the entrepreneur should draw conclusions and update his business model with the received information. According to this method, the company's success does not depend on the entrepreneur's individual characteristics or luck. It can be planned and implemented.

However, before we start testing the product, we need to work through our business idea. For this purpose, the so-called business model should be developed. Simply put, a business model is a description of how a company makes money. In the good business model, we will find the full information about customers, their values, and an economic logic clarifying a way of delivering the value to customers at an appropriate cost. Therefore, the business model is the first step in organizing your business idea into real action. It is also useful at further stages of the company's development, e.g., in attracting investors or in launching the new product on the market. By using the lean canvas model, our business is arranged into a logical puzzle on one sheet of paper.

Example of the possibility of solving the task. Any other solution, in particular those containing more detailed information, but consistent with the case, should be accepted by the teacher.

PROBLEM No time to choose clothes Lack of ability to choose clothes At a later stage: no possibility of offline sales with stationary fashion consultancy	SOLUTION AI algorithm being an online fashion advisor, a personalized assistant during online shopping, a tool increasing sales in the online store	UNIQUE VALUE PROPOSITION 1) Increasing the sale of clothes 2) Binding the customer with the online store by creating an atmosphere of understanding his needs and individual style 3) Enabling purchases of local producers	UNFAIR ADVANTAGE The algorithm is highly personalized and prepared by acquiring the knowledge of experts and advisers about fashion, thanks to which it selects clothes in accordance with the current fashion, season, and the buyer's needs	CUSTOMER SEGMENTS 1) Large companies in the fashion sector that sell or want to expand their sales through the online formula 2) Small and micro fashion companies operating locally, offering their own clothes 3) Customers of clothing stores who do not have the time and skills to select clothes but care about their image
	KEY METRICS Breaking even point New employments New markets		CHANNELS B2B and B2B2C sales; contact with customers mainly through business social media; it is direct contact, retail, highly personalized	

The exercise is aimed at teaching students the canvas business model and its properties, thanks to which it is possible to better understand the characteristics of the business. The student can complete the business model alone, in pairs or in a group. The exercise may be supplemented with additional elements of income and costs by asking for an independent attempt to identify what categories of costs and what sources of income enterprises may incur.

2. **After reading the case and based on the Lean Canvas model, students should describe the key elements of the business ecosystem which helped Getdressed owners to launch and finance their early-stage startup.** Answers will be the result of the analysis carried out on the environment of the Getdressed company. The solution to this item is to present:

- a. the ecosystem in which the company operates
- b. the elements of the ecosystem - people/institutions/competitors/customers/etc. - for which the company has the greatest need

You can use following article as guidelines:

<https://www.forbes.com/sites/georgedeeb/2019/04/04/how-to-build-a-startup-ecosystem/>.

3. **What was the role of the business ecosystem in developing the start-up? And what business partners were engaged and how did they influence a product?** Running a business requires cooperation with different stakeholders. It is especially crucial for startup. In this case we can observe several key partners involved in creation of the company as well as helping in product's development. In the table below we present who should be listed in the proper answer.

Based on ecosystems part classifications (above) indicate the founded partners into table with the column: name, type, role.

Name	Stakeholder type	Role
The Chamber of Industry and Commerce in Krakow with the City of Cracow and ABSL.	City/Municipality Business organization	Evaluation of business idea
People Planet	Business partner	Mentoring
More Bananas	Business partner	Marketing campaign (responsible for creation communication strategy, promotion, graphic design, web content, newsletter for Getdressed)
People Space	Business partner	Assuring co-working, support
AI Rev	Business partner	Mentoring, IT support
Polish Agency for Enterprise Development	Public administration/ government	Organizing financial program, financing

Additional questions enriching discussion:

1. How do you evaluate the role of the startup ecosystem for young tech-startups?
2. How did partners influence a product?
4. **What are the risks and what are the benefits of the B2C versus B2B model? Why in the case of Getdressed such a change was profitable?** Tabulate the risks and benefits of each business model.
Assessment of the difficulty of overcoming risks in B2C and B2B activities
Evaluation of the benefits in the case of B2C and B2B activities
Demonstration on the basis of Getdressed of the benefits of changing the business model.
5. **From the perspective of two products, i.e., a plugin (recommendation AI-based algorithm) and a showroom, show what elements of the company's structure will be important for the stable development of the product and the company.** Students should present the structure of the company – who (what department) is responsible for what?
Presentation of the scope/area of activity of each key job position/role in the structure.
Assessment of the relevance of each entity/position to (1) current operations and (2) business development.
6. **Create a procedure for making changes to the product or its service. Show how a company like Getdressed should carry out such a change from receiving information from the customer to making the change and presenting it to the customer. Show how the process should work, who should be responsible for specific actions, who should supervise the process etc.** Preparation of the procedure for the implementation of the entire task/process. For example, presenting to whom the customer reports a problem with a project, to whom it goes next, what form of information is passed on and what to the customer or customer service. How the product is returned to the customer after repair/modification. Who translates, who presents, who is technically and formally responsible for the whole process. Who oversees / who is responsible for the whole process?
7. **How to convince potential customers to use Getdressed product/products?** The task of the students is to develop and present an elevator pitch in the forum of the group. Elevator pitch is a short form of expression about an idea, project, business plan, which aims to interest the recipient of the message in 30-60 seconds. This is exactly the time it takes to travel in the elevator. In this task the content of elevator pitch depends on the speaker, but every speech must meet the so-called 9C Rule – Speech Feature Set developed by 9C Chris O'Leary: concise (as short as is possible), clear (without specialized words, by using simple vocabulary), compelling (use an essentials information without side stories), credible (to prove to the audience that the speaker and his speech is the most important thing at the moment), conceptual (use rational fact and arguments), concrete (without unnecessary details), customized (taking into account the interlocutor's own characteristics and the purpose of the conversation), consistent (the argument is to be logical without gaps and without fabrication), conversational (the purpose of the speech is to be remembered, to stand out among other information). Each elevator pitch should consist of 5 parts: introducing the speaker, presenting the problem, proposing a solution, showing value, and drawing attention moment.
The student must be able to choose the most important information from a large amount of information about the company. The task is aimed at shaping public speaking skills and strengthening soft skills.

Additional questions to stimulate discussion:

1. **What is crucial for entering new markets?** It is proposed to use guided discussion for the development of the discussion. Students are asked by the teacher what, in their opinion, the features of the foreign market should be in order for the Getdressed solution to be accepted. There is no right or wrong answers to the discussion. The role of the teacher is to introduce three key elements: the characteristics of individual customers to whom the application will be directed and the showroom, relations of large companies offering clothes sales to their surroundings, and consumer habits.
2. **Does AI change fashion stylists' work and how?** It is proposed to use debate discussion method e.g., an Oxford debate. Students are divided into pairs / groups. One side is for the idea that AI will oust personal fashion assistants, the other is against this thesis.

Data analysis:

The case contains qualitative data, data analysis should be carried out based on the Lean Canvas model and the executive structure of the company.

Background resources

- Elevator Pitch: <https://asana.com/pl/resources/elevator-pitch-examples>
- Lean Canvas: <https://www.youtube.com/watch?v=pvIN9STpzCQ>
- Ries, E. (2011), The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses
- The incredible inventions of intuitive AI: https://www.ted.com/talks/maurice_conti_the_incredible_inventions_of_intuitive_ai
- What AI is and isn't: https://www.ted.com/talks/sebastian_thrun_and_chris_anderson_what_ai_is_and_isn_t/transcript#t-9262
- Machine learning meets fashion: <https://www.youtube.com/watch?v=RJudqel8DVA>

Support material

- Elevator Pitch: <https://asana.com/pl/resources/elevator-pitch-examples>
- Lean Canvas: <https://www.youtube.com/watch?v=pvIN9STpzCQ>
- Startup ecosystem: <https://www.forbes.com/sites/georgedeeb/2019/04/04/how-to-build-a-startup-ecosystem/>
- https://www.researchgate.net/publication/340548162_Areas_and_Forms_of_Operation_of_Academic_Business_Incubators_alongside_Startup_Organizations
- https://www.parp.gov.pl/storage/publications/pdf/2015_catalog_startup_ecosystem_web_en.pdf

Teaching Notes 8: Digital Business Ecosystems in the Healthcare context. The case of Saluber

Synopsis

Saluber case is considered especially for the interesting perspective related to the development of the new digital entrepreneurship. This case offers managerial implications for healthcare practitioners & policy makers.

Business issue/challenge

Students have to develop specific plan to avoid startup downhill. For these reasons, after the study of the Firm, Industry, and Competitors, they can design smart IT solutions to face eventual business issues.

Learning objectives

The case objectives regard the

- Launch and set-up of a new digital business,
- Value co-creation via multiple stakeholder digital ecosystems,
- Management of digital platform-based business,
- B2B and B2C marketing and communication strategies in the digital business.

Target audience and prerequisites

Students of business management, finance, and entrepreneurship; young entrepreneurs; digital entrepreneurs. No particular prerequisites but only people with specific interests to the topics of innovation and entrepreneurship.

Suggested teaching strategy

Live/Video lessons. 90 minutes duration. Group exercises on specific challenge.

Answer to discussion questions

1. **What is the most important thing a digital entrepreneur does?** Digital entrepreneurs must play attention to new business model forms (es. ridesharing) and new technologies (es. Iot, AI and so on).
2. **How does Saluber business model is organized?** Saluber is the creator of a business model where the managerial change of a logistics network such as the healthcare one, which in the digital age puts the patient at the center, trying to ensure that the patient has a pleasant and peaceful experience, as far as possible.
3. **Who are the main actors involved in the Saluber digital network?** Saluber presents itself as an incubator for health services and a container for both carriers (ambulances and special means for transporting the sick) and intermediary centers (pharmacies, private clinics, general practitioners, and other actors operating in the health sector) that of professionals (doctors and nurses).
4. **What are the expected benefits/risks of using Saluber digital platform?** Saluber benefits could regard the introduction of an innovative technology in the field of health because we are aware that the real challenge is planning services through digital platforms to save time and make interventions more transparent and effective. Possible risks regard the data archiving and privacy of the patients who decided to participate to this digital business for their care.
5. **Could you list some digital business similar to Saluber?** Lyft, Uber Health.

Data analysis

The case study presents qualitative data related the digital business ecosystems of Saluber. Quantitative data are reported and showed on the support material (e.g., web site and Youtube video of Saluber Academy).

Support material

- <https://www.saluber.me/en>
- <https://www.youtube.com/watch?v=Qiz1ceGpSsI&list=PLuh5EpKkMCYLSYD-9bM019Lrj3SNgJ9rs>

Teaching Notes 9: Opportunities for digital business in crowd-based context. The case of Mamacrowd

Synopsis

MAMACROWD platform (<https://mamacrowd.com/>) is a tool intended for those who, despite not having specific startup skills, still want to approach this world by making it grow.

Business issue/challenge

Students have to develop specific plan to avoid startup downhill. For these reasons, after the study of the Firm, Industry, and Competitors, they can design smart IT solutions to face eventual business issues.

Learning objectives

The case objectives are related to the

- exploitation of social networks for the development of the platform,
- eliminating bureaucratic obstacles and planning new business models,
- management of digital platform-based business,
- investments in new ideas take place in accordance with the provisions of the Consob Regulation.

Target audience and prerequisites

Students of business management, finance, entrepreneurship; young entrepreneurs; digital entrepreneurs. No particular prerequisites but only people with specific interests to topics of innovation and entrepreneurship.

Suggested teaching strategy

Live/Video lessons. 90 minutes duration. Group exercises on specific challenge.

Answer to discussion questions

- 1. What is the most important thing a creator of new ideas in crowdfunding does?** The creators of new ideas in crowdfunding have to play attention to crowdfunding dynamics in continue change (es. system of rewards, regulation and so on).
- 2. How does Mamacrowd business model is organized?** The form of investment that the company deals with is based on equity crowdfunding, therefore those who invest, receive in exchange the participation in the company shares. The campaigns provide for a minimum goal to be achieved, establish the minimum amount to invest and the duration in days of the campaign. At the expiry of the scheduled day, if the campaign failed to raise the minimum amount established, investors will be credited with the funds invested.
- 3. Who are the main actors involved in the Mamacrowd digital network?** Mamacrowd is a leading Italian equity crowdfunding platform for capital raised and is managed by SiamoSoci, Italian leader in matching investors and the innovative startups, innovative SMEs, or simple SMEs or Clubs, i.e., joint-stock companies that invest mainly in SMEs.
- 4. How can you describe the state of affairs with the state regulation of the crowdfunding platform Mamacrowd in Italy?** Consob Regulation in Italy (<https://www.consob.it/web/area-pubblica/equity-crowdfunding-normativa-nazionale-secondaria>) establish the set of obligations and procedures to be followed by the interested parties (Investor / Offeror / Portal Manager) and which are necessary for the correct completion of the investment, in compliance with the system of protections established by law in favor of the investor and the community of savers.
- 5. Could you list some digital business similar to Mamacrowd?** Impact Guru, Kitabisa, SociosInversores and Zank.

Data analysis

Case study presents data related the campaigns launched, the number of investors, and the euros invested.

Support material <https://mamacrowd.com/>

Teaching Notes 10: Cargometer: The usage of digital technologies for freight measurement to improve efficiency in logistics

Synopsis

This case study presents the Austrian technology innovation start-up Cargometer, who uses digital technologies for freight measurement to improve efficiency in logistics. Cargometer, is already in the maturity phase in their life cycle and the goal of the business model is to design logistics processes without distracting interventions. As a first mover Cargometer uses this advantage in the first place but is currently struggling with falling revenues and a decline in new customers. Since the investment in the Cargometer technology is relatively high it is hard to convince freight forwarding firms that they need the technology.

Business issue/challenge

The business model of Cargometer and in particular the revenue model, is to sell the technology hardware and software to their customers, which implies high investment costs in digital technology for the latter. By using the technology customers than have to pay a low service fee every year. For this reason, it is hard for Cargometer to get new customers, especially when it comes to SMEs. On the other side, it is not easy for a start-up to get in touch with big companies and convince them to use a new-market technology. In big established (freight forwarding/logistics) companies prevail rigid structures, so organizations change is hard to implement. Due to their relatively small product-portfolio it is also difficult to gain additional revenues from selling other products to existing customers. Moreover, it is difficult to achieve customers internationally since the technology has to be installed from Cargometer employees. Overall, we can see that Cargometer is in a start-up phase where it struggles with scaling problems.

Learning objectives

- Understand the life cycle phases of a start-up and the scaling problem
- Understand the business model and in particular the revenue model of Cargometer
- Identify other revenue models that Cargometer might use to improve their customer base and thus their revenue
- Distinguish between SMEs and big established companies in terms of investments in new technologies and availability of resources
- Find an easy way for Cargometer to go international with their digital technology (or at least expand their market) with a low risk for the start-up

Target audience and prerequisites

Students attending majors about business management, administration, and entrepreneurship. Entrepreneurs/aspiring entrepreneurs who would like to start a new digital enterprise or change their business model into digital by studying best practices covered in the casebook.

Suggested teaching strategy

Session of 90 to 120 minutes. Students should first read the case individually. After that teacher forms small groups of 2-4 students. First, the questions should be discussed in the small groups before a group discussion takes place in the whole class. The teacher leads the discussion, based on the questions proposed in the case. Afterwards each group gets 2-3 questions work out in detail as an assignment including inputs from the discussions.

Answer to discussion questions

1. **Which business model/revenue model is used by Cargometer?** Yet Cargometers technology is concerned with high investments for the customers. Customers have to pay a fixed price for the hardware and software. Afterwards software updates are free of charge. Only once a year Cargometer earns a (small) service fee from their customers. So, the business model is to sell the hardware and

software, whereby Cargometer earns money, the small service fee, paid by the customers is only a very small part of their income.

2. **How can Cargometer change their revenues model in order to create more revenue streams?** Cargometer could change the revenue model in the following way: they can lower the investment costs for the hardware and software (that may also attract SMEs) and charge a usage fee e.g., every month. With this change Cargometer may acquire more customers and thus higher their revenue. Further, Cargometer can change the fixed prices into differentiated pricing. That means that e.g., big established freight forwarding customers have to pay more for the technology than SMEs. With this strategy Cargometer can further increase their customer base, since the most freight forwarding companies in Austria are SMEs.
3. **What is limitation of the current technology and how can Cargometer further develop their offering?** The limitations of the current technology are twofold: First, Cargometer only offers one product and has no complementary products or additional products that existing customers may purchase. Therefore, Cargometer has to attract new customers and is not able to sell more/other products to existing customers. To further scale up Cargometer may add more products to their portfolio in order to expand their offer and their customer base. They should find related needs that the customers have and address them with new customers.
4. **What problems occur when Cargometer tries to scale their technology in other countries and what can they do to overcome them?** The problem is that the installation and implementation of the technology needs to be done by Cargometer. Therefore, Cargometer would need employees in other countries to overcome this problem. Further, by expanding their market Cargometer needs to get in touch with local firms, which may not be that easy. To overcome the problems, Cargometer may find a partner in another country, or they may offer their technology for other firms as a license model.
5. **How can Cargometer further improve their business model (digitally)?** Cargometer e.g., can use licensing to further improve their business. So, for example, other (tech) companies can implement the hardware/software and Cargometer can earn a licensing fee. Further, Cargometer may include digital services for their customers so that they have to pay a higher service fee and have additional functions, e.g., automatically produces reports or statistics.

Background resources

- <https://www.cargometer.com/de/>
- <https://www.youtube.com/watch?v=J-uQPflg1i4>

Support material

- Ghezzi, A., Cavallaro, A., Rangone, A., & Balocco, R. (2015, April). A Comparative Study on the Impact of Business Model Design & Lean Startup Approach versus Traditional Business Plan on Mobile Startups Performance. In ICEIS (3) (pp. 196-203).
- Osterwald, A. & Pigneur, Y. (2011). Business Model Genertion: A handbook for visionaries, game changers and challengers
- Overall, J., & Wise, S. (2015). An S-curve model of the start-up life cycle through the lens of customer development. The Journal of Private Equity, 18(2), 23-34
- Ravindranath, S., & Wang, S. Q. (2008). Universal scaling characteristics of stress overshoot in startup shear of entangled polymer solutions. Journal of Rheology, 52(3), 681-695.

Teaching Notes 11: Kipferl – Disrupting the way to shop groceries? How to stay competitive and drive innovation in a pure online supermarket

Synopsis

The Kipferl case is typical and representative of a crisis that face many companies and digital start-ups as the ‘online shopping’ is the ‘new normal’ and Apps make it easier before to order products and goods via the Internet.

Business issue/challenge

The challenge of Kipferl is one of digitalization, competition, innovation, and start-ups challenges. Most of the new digital start-ups face similar challenges as at one time they are confronted with a situation they did not plan to be in. Overall, I think we can divide the case and its challenges into three sections: The first section of challenges comprises operational excellence, i.e., the technical and customer requirements for a reliable and fast delivery, transportation issues as well as trained staff to fulfill orders. The second section of challenges, and the more important one, deals with the strategic decision how to position themselves within the (online) grocery market, i.e., an analysis of the competitors, own strengths and how to drive innovation in order to stay competitive. The third section with problems from a protagonist perspective. Julia faces challenges regarding a potential denial of problems through her CEO, so she must find ways to confront the CEO and build alliances.

Learning objectives

- The case intends to cover a comprehensive understanding of the various business challenges that occur during the beginning of the newly funded start-up.
- The case has also depths that may not a recognized in a first quick read, such as to look at the disruptive potential or the human resource issues.
- Overall, students will – hopefully – learn how interdependent these problems are and will dive into the complexities of the actual business world.

Target audience and prerequisites

The case can be used by students studying business and management, in particular, entrepreneurship, innovation, digitalization as well as strategy.

Suggested teaching strategy

The case can be read in class and students can approach the challenges of Kipferl from different perspectives. Start out with a discussion of Kipferl as a company and how it came to have its current position:

1. Flesh out the participants in the case: What are their backgrounds, their priorities.
2. Discuss the challenge of falling revenues: What could be the reasons behind the drop? Is it rather an operational or a strategic challenge?
3. What can Kipferl do to increase revenue in the short- and in the long-term?
4. Discuss whether Kipferl has the potential to disrupt the industry? What would be the indicators and initiatives that make Kipferl a disruptor?
5. What should Julia do?
6. What is the applicability of this case – how does it relate to the students’ own experiences in their companies?

Answers to discussion questions

For the operational excellence section, most of the challenges can be tied back to typical entrepreneurial literature, which includes the challenges when scaling the product: e.g., an influx of new staff that is usually highly motivated, but not trained – and roles are also rather vague, i.e., everybody has done help out when things go wrong. Moreover, looking at complaints and the establishing a structure to deal with these complaints

may also something to discuss. Overall, it's about the process from the order until the after-sale communication. Here, supply chain management strategies, Porter's value chain or human resource models can help to get the bigger picture.

From a strategic viewpoint, the challenges can be approach from two sides. First, the competitor analysis can be conducted through classical management tools such as Porter Five Forces or the internal capabilities can be assessed through VRIN/VRIO. Second, however, as this case specifically addresses the challenges behind digital entrepreneurship, a more interesting approach is to examine whether Kipferl has the potential to disrupt the existing supermarket industry which mainly consists of brick-and-mortar stores. In particular, students should make themselves familiar with disruptive innovation theory from Clayton Christensen and discuss the pro and cons whether Kipferl has disruptive potential. Interestingly, from a pure theoretical assessment, the answer would be probably no, but to what extent these online supermarket landscape poses a threat to incumbent companies may lead to very interesting discussions.

For the third point, it needs also be figured out what Julia will do. As Julia alone will not convince the CEO alone that other potential problems are out there, he need to be convinced from several sources, which can come from inside or outside of the organization. In other words, Marissa needs to conduct research and needs to approach the other managers and explain her view – in short, she needs to find allies. Otherwise, changing the course and making the CEO aware of external threats might not be easy.

Background resources / Support material

- Christensen, C., Raynor, M. E., & McDonald, R. (2013). Disruptive innovation. Harvard Business Review. https://www.innosight.com/wp-content/uploads/2018/01/Innosight_HBR_What-is-Disruptive-Innovation.pdf
- Grundy, T. (2006). Rethinking and reinventing Michael Porter's five forces model. Strategic Change, 15(5), 213-229. https://onlinelibrary.wiley.com/doi/pdf/10.1002/jsc.764?casa_token=fk2vOpRmqAUAAAAA:WD68jEA0Eojagq6mlsKZCt4yD9rlDzn5SnrjHFMberer2G--RQOxTXliMzc36pVKoygRsYx2QtS4psc
- Porter, M. E. (2001). The value chain and competitive advantage. Understanding business processes, 2, 50-66.

Teaching Notes 12: The digitalization for an Italian “Special Steel”

Synopsis

Cogne Acciai Speciali case in representative especially for the interesting perspective related to the development of the new digital activities to be on track with market changes.

Business issue/challenge

Students have to understand the best digital practices implemented by current firms. At the end of the case study, they will be aware of the planning, costs, difficulties, and advantages related to digital changes within company's reality.

Learning objectives

The case study objectives regard:

- Detection of the drivers of the digitalization.
- Planning and application of digital firm's activities:
- Advantages and disadvantages of digitalization process.
- Analysis of balance data related to the digitalization process.

Target audience and prerequisites

The targeted audience is composed by students of business administration, finance, and business entrepreneurship; young entrepreneurs; digital entrepreneurs. Finally, it could also be analyzed by entrepreneurs who want to start a new digital company or change their business model to digital.

Suggested teaching strategy

Live/Video lessons; 90 minutes duration; Ending group discussion.

Answer to discussion questions

1. **Which are the main drivers of the innovation process implemented by Cogne Acciai Speciali?**
Before starting the digitalization process, firms have to consider several factors (life of actual machineries, the forecast of future products' sales, the software to ask to providers...)
2. **Why does the firm's name the adjective “Speciali”?** After the digitalization process, what does a firm? (Training courses of its employees...)
3. **Which are the main advantages of the digital process?**
Is it possible to quantify the effect on digitalization process in terms of costs and sales?
4. **How did the firm's life change after the digital process?** What are the future challenges of Cogne Acciai Speciali?

Data Analysis

The case study presents data related to the digitalization process about the Value of the production, ROS, and cost of software.

Background resources

- Corporate entrepreneurship: Current research and future directions, P.H. Phan, M. Wright, D. Ucbasaran, W. Tan; Journal of Business Venturing, 2009, pag.2.
- Emerging issues in corporate entrepreneurship, Dess, G.G., Ireland, R.D., Zahra, S.A., Floyd, S.W., Janney, J.J., Lane, P.J., Journal of Management, 2003, pg. 351–378.
- <https://www.cogne.com/le-nostre-sedi/>
- <https://www.cogne.com/sostenibilita/>
- <https://www.cogne.com/bilancio-2020-per-il-gruppo-cogne-investimenti-per-oltre-26-milioni/>

- https://www.eulerhermes.com/it_IT/news-e-approfondimenti/studi-economici/studi-di-settore/lindustria-siderurgica-in-italia-2021.html
- <https://www.siderweb.com/articoli/ufficio-studi>
- <https://www.apollo.io/companies/NorthAmericanHoganas/54a11b4169702da10f372500?chart=cout>
- <https://www.acerosims.com/index.php/la-empresa-aceros-ims/la-empresa>
- <https://www.chathamsteel.com/about-us/>
- An empirical examination of benefits, challenges, and critical success factors of industry 4.0 in manufacturing and service sector, M. Sony, J. Antony. O. Mc Dermott, J. A. Garza-Reyesd, Technology in Society, 2021, pag.1.
- Asymmetric New Product Development Alliances: Win-Win or Win-Lose Partnerships; K. Kalaignanam, V. Shankar, Management Science, pag.14

Support material

- https://www.cogne.com/wp-content/uploads/2019/09/20201008_HD_VOLUME-BILANCIO_web_compressed-1.pdf, pag.65
- <https://www.cogne.com/bilancio-2020-per-il-gruppo-cogne-investimenti-per-oltre-26-milioni/>
- https://www.cogne.com/wp-content/uploads/2019/09/20201008_HD_VOLUME-BILANCIO_web_compressed-1.pdf

Teaching Notes 13: How to digitalize manufacturing SMEs: The case of Medaarch / CAD

Synopsis

The Medaarch-CAD case is the story of an Italian consulting firm, which core business is to help SMEs, artisan firms, startupper and makers to exploit the potential of new digital technologies in transforming their business and acquiring valuable knowledge in the field.

The history begins in 2007, when a group of freelancers in the field of engineering and architecture began to carry out an activity of dissemination and communication about the opportunities of new digital technologies, for SMEs and start-up. Initially founded as an association, in 2012 the association opened the Mediterranean Fab Lab in Cava de'Tirreni, the first Fab Lab in Southern Italy and in 2015 the group of friends founded their company: Medaarch.

From 2007 to 2015, the founder (Amleto Picerno) and his partners met thousands of small entrepreneurs and artisans, understood their needs and the criticalities of their business models, thus acquiring specific knowledge on this kind of firms.

Thanks to the experiences collected working with small companies and artisan, Amleto and partners decided not to be a classic consulting company, but to be "activators of innovation paths" and they developed an ad-hoc innovation consulting model, used for both process and product innovation, called "innovation of acupuncture".

In 2018 thanks to a project launched by the local administration, Medaarch founded the "Center for Digital Handicrafts" the first place in Italy dedicate to the revival of artisan activities that exploits the potential of new technologies of digital fabrication. The center consisted of over 200 square meters reserved for laboratories, 150 square meters for training rooms, a co-working space and a gallery open to the public on which 12 shops host artisans and startupper shown their digitally designed and/or manufactured products.

The business model designed for CAD represents an ad hoc solution tailored on the specific needs of the territory of Cava de'Tirreni, based on a strong collaboration between Public Administration, universities, companies, and trade associations and driven by a strong sense of territorial belonging.

The next step now is to replicate the model: to make the model replicable in other contexts without to lose the unique value proposition that characterize the model of CAD.

Business issue/challenge

The CAD was not born as a model designed to be scalable and replicable.

The idea born as a dream of the founder to give an opportunity to his territory and to make at disposal of its territory the knowledge and competences developed in years spent abroad and all around the world.

Amleto and his friends developed an ad hoc solution for the territory of Cava de'Tirreni, based on a strong collaboration between Public Administration, universities, companies, and trade associations and driven by a strong sense of territorial belonging. The success of the project and the results obtained brought out two different needs:

- A market need: that refers to the request coming from other subjects and other territories, that on the base of the success of CAD and other initiatives promoted by Medaarch requires their services and products.
- An entrepreneurial need: that refers to an emerging need of the founder itself that, thanks to the experiences collected with the project, actually see in their activities an opportunity to re-launch all the made in Italy sector.

Now the challenge offered by these two needs is to scale the model and to replicate it. So, the main questions are:

- 1) How to make scalable the project without to lose the original spirit that drive the founders?
- 2) How to replicate the model in other contexts and regions?

Learning objectives

After reading this case, students should be able to:

- Identify the key factors that lead the success of Medaarch/CAD.
- Identify the elements that characterize the Business model of the CAD case.
- Identify the role of the founder and its leadership role in motivating and inspiring other people to develop the project.
- Understand the main challenges and issues in scaling the model in order to make it a project with a potential global impact.

Target audience and prerequisites

Students attending courses about general business management, innovation, entrepreneurship, and digital entrepreneurship. Further, the case could be used in specialized courses for entrepreneurs and business consulting working on the planning of acceleration programs for public and private subjects that could find useful insights and suggestions by studying best practices covered in the casebook.

Suggested teaching strategy

Sessions of 60 to 90 minutes. Students read the case individually. Subsequently, a group discussion on the case is established. The teacher leads the discussion, based on the questions proposed in the case. All issues are discussed in the class, as a group.

Answer to discussion questions

- 1. Why Medaarch/CAD has been so successful?** It is possible to identify at least three groups of elements that made possible the success of the case.

The first one refers to the role of the founder and his visionary intuition. Amleto, after years spent around Italy and Europe, develops the idea to come back in his city and to make his knowledge and competences at disposal of his territory for the renewal of his city. In doing this, he identifies a market opportunity in the specificity of the territory mainly based on small companies and artisan firms.

The intuition was to conjugate his technical competences and expertise on new technologies with the specificity of the territory. The result has been the creation of a project, the first in Italy, whose main objective is to put together tradition and innovation for the growth and renewal of economic activities. The second element that characterizes the case is the definition of a clear and characterizing value proposition that drives the actions of the entrepreneurial group and clearly distinguishes the project from their main competitors. What we can define as the unique value proposition is well expressed in the definition used to describe the project “not a consulting company but an activator of innovation processes”. The basic idea of the project is to create in small firms and artisan companies a culture of innovation through the realization of a laboratory model, a continuous place of experimentation and redesign in a vision that is as dynamic as possible where reality evolves looking for better ways.

The third element that characterizes the project is the adoption of an open innovation approach in developing all the activities of Medaarch. Amleto and his team understood since the start of the project the necessity to open their project to other subjects. In fact, the project is based on a strong collaboration between Public Administration, universities, companies, and trade associations in order to collect all the necessary resources to implement the activities and initiatives promoted by the group. In the founder and entrepreneurial team, we can identify many of the most important features of the entrepreneur. In this context, the capability to identify an entrepreneurial opportunity represents the most important one (Stevenson and Gumpert, 1985) as well as the capability to combine and aggregate different kind of resources and competences for the exploitation of the identified entrepreneurial opportunity (Stevenson et al., 1989).

The value proposition represents a core concept of the business model of a project. It could be defined as a unique combination of products and services that offer value to the customer. In other words, it is a satisfactory solution to a consumer problem, and it represents the reason that drives a person to acquire a particular product or service (Osterwalder and Pigneur, 2010)

The model of Open Innovation is a new approach to innovation process proposed for the first time in 2003 by Henry Chesbrough in his book “*Open Innovation: The New Imperative for Creating and Profiting from Technology*” (2003).

- 2. What is the role of leader (Amleto) in the success of CAD?** Amleto is the “soul” of the CAD. His vision and his charisma were fundamental for the aggregation of the first partners in 2005, as well as in the development of the Medaarch network, which involves companies, universities, and public administrations. Amleto carefully designed the CAD and managed its development himself, leading it

to success.

Amleto has shown that he has technical and managerial skills, building, with his partners, a valid team to which he can delegate the various activities. Amleto is an architect, and his training leads him to approach the business with systemic thinking. This is one of the basic elements of his life philosophy, and also one of the strengths of the CAD value proposition.

Amleto is not only an entrepreneur, but he is a true leader. Leadership, as defined by Yukl (2002, p. 3), is the process of influencing others to understand and agree on what needs to be done and how it can be done effectively, and the process of facilitating individual and collective efforts. to achieve a shared goal. Hamlet's leadership is "transformational leadership" (Avolio et al., 1991; Burns, 1978). The primary behaviours of transformational leadership include providing vision and inspiration and challenging the status quo. It focuses on motivating followers by appealing to their ideals and intrinsic motivations. Entrepreneurs who use transformational leadership inspire their followers to adopt the vision of the organization as their own and focus their energies towards achieving higher-level goals, rather than earning rewards or avoiding punishment. The literature has highlighted how there is a positive correlation between transformational leadership and organizational performance. (Sadia, 2018).

3. What is the business model adopted for CAD and what are its main characteristics? CAD (Centro per l'Artigianato Digitale) is the innovation center promoted by Medaarch to help artisans and small companies to innovate through digital and new technologies.

The business model designed for CAD is based on three main elements:

- A differentiated offer of services.
- A segmentation of the customers/market.
- A differentiation of revenue model.

The services offered by CAD includes:

- The coworking space: 12 workstations for a space of 50 square meters that adapts to the professional and artisan realities it hosts
- Acceleration: The program Atelier dell'Artigianato Digitale
- Access to laboratory and equipment of Digital Fabrication
- Education and consulting

In terms of customers segments, the business model of CAD is based on the identification of three different segments:

- Nomads: professional and freelancers working without a fixed office. They can access to co-working spaces on a daily base.
- Residents: small companies and artisan firms who need to carry out R&D activities and to test their prototypes and product. They require for permanent access to the laboratories and spaces of the center.
- Participants to the innovation program: young artisans and startupper participating to the program Atelier dell'Artigianato Digitale, an acceleration program that includes different services. More specifically the program offers: free participation in events organized by Medaarch in the context of CAD; training activities on digital tools for crafts and manufacturing; use of laboratories and tools for craft prototyping work; use of numerical control machines for artisan prototyping works; web and social promotion of products and the company; design and technological support service; discounts on consulting services offered by Medaarch; exposition and sale of products in the Bottega space, facilitations for training promoted by Medaarch.

According to the three different segments of customer, different models of revenue have been designed. Nomads pay on a daily base; Resident pay a month fixed price and the "Atelier dell'Artigianato" incubation path 7,200 euros + VAT.

There are many definitions of the term Business Model in literature. A well accepted definition is that provided by Osterwalder and Pigneur (2010) that described the business model as the rationale of how an organization creates, delivers, and captures value. Looking at the strategy discussion (Nguyen, 2014), there are a lot of papers that associate the business model term with the strategic concepts and issues such as Osterwalder (2004); Morris et al. (2005); Rajala and Westerlund (2007); Teece, (2010). According to Willemstein et al. (2007), it is impossible to overlook the importance of the business model in mediating processes of designing and executing strategy to position the firm in a dynamic business context. From the analysis of the CAD case, it emerges that the Business model and the strategy implemented are not individual elements, but rather two inseparable entities, inextricably intertwined entities, that may be presented in an integrated manner (Stefanovic, 2012).

4. How the model could be applied in other contexts? The key elements to replicate the model are the

following: the value proposition of CAD and the methodology of the acceleration program. The core value of the CAD is represented by value proposition that it expresses. The value proposition is characterized by the ability to structure ad hoc solutions for a specific territory. The first element that characterizes the business model is that the development of a CAD starts from an urban redevelopment project, through it the first social impact for the community is generated.

The second element characterizing the business model concerns the choice of technologies. For Amleto, it is essential that in the CAD laboratory there are the necessary technologies to be able to innovate the crafts that characterize the specific territory. "If you make a mistake in the choice of technologies, the whole project risks failure".

The third element concerns the training offer. Also in this sense, the CAD aim is to offer ad hoc training packages for the artisan craft of territory, composed of a fixed part (Digital Marketing, Making, etc.) and a part that can be adapted according to the technologies present in the laboratory, and to the specific needs of the territory.

A value proposition that is very different from that of the main competitors of CAD. Unlike the main competitors identified in the case, the CAD aims to build centers that are "tailor-made" for the needs of a territory.

Amleto's goal is to replicate the CAD model, based on co-making, training, and the incubation path, but structuring it according to the working vocation of the territory.

The CAD model also starts from an urban redevelopment project, that is, from the recovery of an abandoned building, transforming it into a social and economic development center for the community.

The CAD is based on the development of an incubation path built specifically to digitize the craft professions. Therefore, unlike its competitors, it has a clear reference to the enhancement and innovation of "Made in Italy" craftsmanship. The digital transformation in the CAD model does not only concern the technological aspect but the whole business model. The goal of the "L'Atelier dell'Artigianato" is to digitize the incubated artisan firm, from the mindset of the entrepreneurs/craftsman to the production and sales process.

The CAD does not aim to replace universities, but rather focuses on the consolidation and expansion of the network, with universities and research centers, to catalyse the concrete application of research.

In summary, the CAD value proposition is different because:

- focuses on the specific needs of a territory
- is vertical on the digitization of artisan professions
- it is based on Co-making and not just on co-working
- presupposes an urban redevelopment project
- offers an ad hoc incubation path for craft trades

The "Atelier di Artigianato Digitale" program offers an incubation course lasting 12 months. It is aimed at artisans, professionals, companies, start-ups but also at people or teams who want to work with crafts and get involved to tackle a path of innovation and relaunch of their business.

The program offers the 12 selected, the following services:

- exhibition and sale of products in a workshop space in the CAD gallery
- 80 hours of training on three-dimensional design and the use of machines for digital fabrication
- 25 hours of consulting and accompanying the process of Technological innovation
- use of spaces and equipment
- use of numeric control machines
- web and social promotion of participants' activities
- free participation in events
- concessions on additional consulting services
- facilities on additional training services promoted by Medaarch

According to Nielsen and Lund (2018), to implement the patterns for scalability, it is often necessary to identify activities and resources where collaborating with partners is advantageous and can strengthen the offering's value proposition to customers. In the strategy of CAD Business Model Scalability, Amleto and partners understood that needs to pay attention to what their customers and strategic partners value, to optimize the value proposition of their offer. Their approach, in line with Pattern D "Leverage the work of partners", defined by Nielsen and Lund (2018).

5. What kind of activities can be promoted and realized to replicate the model?

Research and selection of managers with a managerial and technological vision

To educate people to transfer the vision of CAD and the approach on which it is based create a network

with firms, universities, and other local players, to structure collaborations based on open innovation recovery of an abandoned building, and implementation of an urban redevelopment project develop a laboratory with the technologies necessary for the artisan crafts of the reference area.

- 6. What kind of financial resources could be mobilized to scale the model?** In the financial strategy of Amleto and his partners, today the use of Ministerial or regional public funds is not foreseen, because there are no funds that can be accessed to replicate the CAD model.

As a public actor, there is “Cassa Depositi e Prestiti” (CDP).

CDP is an Italian financial institution, in the form of a joint-stock company, controlled for about 83% by the Ministry of Economy and Finance and about 16% by various banking foundations. The CDP Group has among its main activities the loans to local authorities and businesses, the participation in the share capital of medium and large profitable national companies and considered strategic for the development of the country, the financing of industrial and financial projects considered relevant for the growth of the Italian economic system.

From the point of view of private actors to date Amleto and his partners are still thinking in a broad sense because the collection of funding is closely linked to the approach that is to be given to future CADs.

The CAD could focus on three categories of main financial players:

- Pure “classic” Venture Capital
- Social Venture Capital
- Private investors such as companies and foundations could play an important role.

The strategy to be implemented is closely related to the choice of the main objectives of the CAD, which can be mainly “profit” or “social impact”.

The CAD’s financial strategy to scale the business is based on the use of multiple sources of finance, an approach according to suggest by literature (Isenberg and Lawton, 2014). Clearly the choices are guided by the analysis of the peculiarities of the Italian financial market. This confirms how important it is to analyse the company in relation to the environment in which it is inserted (Sciarelli, 2004).

Background resources

- Web article: <http://www.dentrosalerno.it/web/2018/02/21/cava-de-tirreni-centro-per-lartigianato-digitale-al-via-call-per-artigiani-e-pmi/>

Support material

- Maker faire report on “CAD”: https://www.youtube.com/watch?v=hWZEDoeHlx8&t=0s&ab_channel=MakerFaireRome-TheEuropeanEdition
- National TV report: <https://www.facebook.com/watch/?v=222295519343350>
- “CAD” official website: <https://www.centroartigianatodigitale.it/>
- Facebook official page: <https://www.facebook.com/centroartigianatodigitale/>

Teaching Notes 14: From artisans to digital entrepreneurs: innovating an ancient profession through digital transformation. The case of “La Bottega del Calzolaio”

Synopsis

La Bottega del Calzolaio is much more than a shoemaker's story: it is the story of a whole family: the Del Vecchio family! A story that begins in 1916 and reaches the present day, passing through five generations. The company is based in Campania (Southern Italy), in the heart of the Piana del Sele, between Battipaglia and Eboli, where the laboratory of over 2000 square meters is located. However, thanks to digital technologies, today “La Bottega del Calzolaio” offers its services throughout Italy and sells its products even beyond national borders, letting this activity to change from “local craftsman” to “national craftsman”. Over the course of its history, the company has constantly innovated, and in 2018 it received a truly prestigious award: the Financial Times and Google included the company in the prestigious “Europe's road to growth” list, the list of the 100 leading companies in Europe in digital transformation.

It all started in 2013 when the latest generation Del Vecchio family opened an eBay store which led to a 400% increase in turnover in three years. The online transition was a strategic choice “to keep up with the times” and digitization has not only strengthened the brand's artisan reputation, but also helped to market “Made in Italy” products abroad. In fact, in 2016 the dedicated website “La Bottega del Calzolaio” was born, on which it is possible to offer consumers twice as many products as those available on the shelves of physical stores.

The latest digital strategy of the young Del Vecchio was the birth of the Calzolaio.online website, created with the aim of bringing the services of an ancient profession, that of the shoemaker, to the homes of all Italians.

Business issue/challenge

In 2016 La Bottega del Calzolaio was selling throughout Italy and through the monitoring of online applications, it emerged that many customers, especially from big cities, wanted to know if there was a store located in their own surroundings.

The great demand was the result of three main factors:

- 1) The scarcity of cobbler stores, especially in large cities.
- 2) The offering of innovative services, such as leather regeneration, with high-quality standards.
- 3) The excellent online reputation and customer trust in the “La Bottega del Calzolaio” brand.

However, Gerardo and his sons knew that the original business model, based on the opening of multiple stores, is not sustainable for the business growth, because it is difficult to find professional resources to entrust with the management of a store, which required significant investments. Now, the frontiers opened by the new digital strategic vision, which aims to better exploit the value of the new business model, requires to go further ahead to manage both the craft side and the business side of initiatives effectively

Learning objectives

After reading this case, students should be able to:

- Define which are the key factors that lead a small artisanal family firm to success
- Identify the role of human capital in such an ancient craft and the different professional skills required in the various stages of development of the business model
- Analyze how the digital revolution can impact on traditional business sectors, promoting business model innovations
- Understand the strategy/governance structure evolution in the digitalization process of traditional product/service businesses
- Compare the corporate business model evolutions in the pre and post digitization phases.

Target audience and prerequisites

Students attending majors about general business management, administration, entrepreneurship, and digital entrepreneurship. Entrepreneurs/aspiring entrepreneurs who would like to start a new digital enterprise or change their business model into digital by studying best practices covered in the casebook.

Suggested teaching strategy

Sessions of 60 to 120 minutes. Students read the case individually. Subsequently, a group discussion on the case is established. The teacher leads the discussion, based on the questions proposed in the case. All issues are discussed in class, as a group.

Answer to discussion questions

1) What are Family business success factors?

- Relationships

As Luca and Orazio said, they have always had a good relationship with their father based on mutual trust and esteem, and in their opinion, this was an element to support their initiative.

The solidity of the relationships that characterize the Del Vecchio family represents a real strength and added value of the company, which has favored the collaboration between Gerardo and his children and the generational transition without particular criticalities.

In the case of the Bottega del Calzolaio, trust and mutual respect between Gerardo and his sons have been a fundamental element for the success of the firm's digital transformation. Gerardo has always encouraged his sons to experiment on the firm, from an early age who used the pieces of leather to create key rings or bracelets.

The latest generation of entrepreneurs, that of Luca and Orazio, led the company's digital transition, driven by the passion for work and the extreme trust that their father, Gerardo, has placed in their skills and visions. The fact that relationships within the family represent a strategic dimension within the business and a very important source of competitive advantage has been strongly underlined in literature. For instance, Morris et al. (1997) pinpointed that the overall family relationships, concerns critical factors in terms of communication, trust, commitment, loyalty, and conflict. Suggesting that the two most critical issues in relationships are trust and affability. Trust is characterized by openness and honesty among family members, as well as confidence in a family member's reliability and integrity. Affability is concerned with mutual respect between the family business head and heirs, on the one hand, and with the minimization of rivalry, bickering, hostility, and tension, on the other hand. Thus, the rivalry is replaced by accommodation and team approaches to tasks and problems.

- Preparation of family members in terms of skills and work experiences

Luca and Orazio grew up in the company and, already working during their school years, they acquired the technical skills and work ethic of their father, performing a clear knowledge transfer from father to sons.

This knowledge transfer has a fundamental role recognized by the literature in terms of formal education, training, work experience, entry position, and motivation (Morris et al. 1997) of family members, that is, the extent to which they have the requisite business skills, managerial capabilities, knowledge of company operations, and attitudinal predisposition to run the business (e.g., Doescher 1993; Fenn 1994; Hyatt 1992; Osborne 1991).

- Shared entrepreneurial spirit between generations

The innovative and entrepreneurial spirit belongs to the Del Vecchio family. Through his work experience in Switzerland, Gerardo discovered that it was possible to transform the cobbler laboratory into a company. He decided to leave his safe job in Switzerland to return to Italy and transform the family artisan workshop into a real firm, leveraging his entrepreneurial spirit.

To achieve his goal, Gerardo gradually introduced numerous innovations: service innovation, retail innovation, Business model innovation. The entrepreneurial spirit led him to unwittingly carry out preparatory analyzes recognized in Innovation literature (Biazzo, 2018), such as Voice of Client Analysis, Analysis of Emerging Trends, Competitive Benchmarking, and Technological Scouting.

Orazio and Luca, working closely with their father, have absorbed, and cultivated the entrepreneurial spirit. Neither of them studied economics or business, however, they realized that digital technologies could be an important opportunity to innovate their firm's business, overcoming the limits of the analog world. They weren't afraid to experiment and expose themselves to failure, they studied the internet phenomena, and when they realized they needed the support of an expert, they thought their investment well.

Literature underlined (Lumpkin, 1996) that entrepreneurially oriented ventures demonstrate a spirit characterized by commitment to autonomy (i.e., the ability of an individual or team to independently develop and act on an idea or vision), innovativeness (a firm's propensity to engage in and support the development of novel ideas resulting in new products, services, or technological processes), risk taking (i.e., managerial tendency to act boldly to achieve firm objectives), proactiveness (a firm's tendency to anticipate and act on future needs before other firms), and competitive aggressiveness (a firm's propensity to directly and intensely challenge its competitors to outperform industry rivals).

2) What are the challenges facing small family businesses in the digital age? The Del Vecchio brothers understood that digital could be an opportunity for growth for their family firm. An erroneous concept about digital transformation is to believe that it consists only in the digitalization of the current management method and interactions with third parties. The opportunities for innovation are far greater. Taking into consideration, for example, the opportunities for digital interactions with the customer, for Luca and Orazio it becomes obvious that it is not merely about digitizing the existing touchpoints or the sales of the product, but mainly about reinventing new ways destined to bring new life to the traditional business model adopted in the artisanal family business.

Although history tells us that resistance to change may occur among other family members who do not share the same awareness about opportunities with the younger leaders of family businesses of the present and future generations, the case study demonstrated that this is not the case: the shared entrepreneurial spirit, the vision, and the strong trust made it possible for Gerardo (at the time about fifty years old) to put the project in the hands of his children without any particular reservations.

The real challenge for the Del Vecchio family has been (and actually is) to understand what to digitize (product, service, logistics process), with what times, and, above all, with what resources (human, financial).

Digitalization is a process that impacts business, organization, and production; therefore, a substantial awareness of the issues and tools offered by digital innovation is essential. Digital transformation takes place and is an important feature also in small family businesses.

As is well known, one of the distinctive traits of family businesses is their resistance to change, which is summarized in the tendency towards continuity of long-term management of the company over several generations (Ferraro & Cristiano, 2021). Many family businesses, however, while maintaining the characteristic of upholding business continuity, are adapting to the digital world in a very short time, seeing an opportunity for innovation and change capable of safeguarding their existence in this new concept of doing business.

3) How does the corporate governance structure change in the transition to digital? How do the roles of family members change, what are the knowledge needs and the necessary skills to internalize? After starting the online experimentation, Orazio and Luca have been looking for a long time for the right consultant for support in the realization of the digital transformation of their business model. Even though they had studied the e-commerce phenomenon, they understand that they needed an expert consultant to transform their business model. Giuseppe was not only a digital consultant but a 360° consultant, who embraced the business vision of the Del Vecchio family. His role was fundamental in bringing about the business model transformation of the firm. Giuseppe has not only structured the digitalization of the firm but has brought digital culture into the firm through the digitization of processes by the introduction of software solutions for small businesses (G-suite): he showed how the use of technologies could improve all business performance not only sale performance.

Subsequently, he trained Orazio and Luca, regarding digital communication activities, digital content creation, customer service, digital skills fundamental in the implementation of online and offline strategies.

For the first few years, to keep costs down, Orazio and Luca carried out most of the activities related to the online business. However, when the cobbler work began to increase, they were no longer able to follow the online activities full time. With Giuseppe's support, they decided to hire qualified personnel to internalize some key activities like customer service, content marketing, and web design.

Customer service: The decision to internalize the customer service derives from the desire to be able to transmit company values to the customer's manager, something that would have been difficult to achieve by outsourcing the service. On the Internet, every single business relationship could have a greater impact in terms of word of mouth than offline sales therefore it was necessary to transfer, to the head of the customer service the values of the Del Vecchio family in terms of customer satisfaction. Furthermore, it was necessary that the person in charge of the customer service could deal directly with the artisans, both to define product estimates and to be able to answer technical questions in the best

possible way.

Content marketing: The hiring of two resources dedicated to the creation of textual and multimedia content (Copywriter-Search engine optimization expert and video-maker expert), for online communication was considered strategic, as it allowed the firm to communicate daily with its customers. Through the creation of online content, not only was it possible to promote the services and products of the Bottega del Calzolaio, but it was also possible to improve the interaction with customers through the creation of video tutorials and communication in real-time.

Web design: With the launch of “Calzolaio online” the Del Vecchio brothers and Giuseppe found it appropriate to internalize the web design activity, to improve the firm’s communication. The introduction of a web designer in the firm has allowed the digital team to be more independent and more responsive.

Another crucial strategic decision for the realization of the digital transformation of the firm was the opening of the Eboli site. In a structure of 2000 square meters, it was possible to develop a large laboratory space and space for digital activity.

This case highlights how digitalization cannot be limited to a mere set up of a website but must consist of a much longer and more radical process that begins with the transformation of the core business processes (Pasini & Perego, 2016). To achieve all these elements, it is also necessary to completely reassess the business model of a company by questioning the value of the brand, the core skills, and the decisions about what to invest or divest. Therefore, it is possible to redefine the business model by the evolution of the existing organization (Notarnicola & Carvelli, 2017).

To succeed in the digitalization process, continuous support from business leaders is salient and decisive, along with strategic partnerships that provide resources and skills for achieving the set objectives. Moreover, it is also important to change the organizational structure, not only by introducing, for example, e-commerce to sell products online but also by reforming the core activities of the organization itself, which goes through the internalization of some digital activities. To obtain this goal, a cultural change towards the so-called digital culture is essential (Hemerling et al., 2018).

4) What’s next? How can you imagine digital technologies could help to scale the business of the company also from the service side? For the growth of the business, Giuseppe has adopted a data-driven strategy, which was also important in the choice of opening the store in Rome. Based on the analysis of the comments and messages of online users, the Del Vecchio brothers, with the suggestions of Giuseppe, realized that there was a growing interest in some particularly innovative services, such as regeneration, restoration, and colouring of leather products. These services were (and are) the most expensive and the most profitable for the firm.

To meet the increasing demand Orazio imagined a new service model, based on the collection of the goods at the customer’s homes, carrying out the repair activity at the Eboli site, and delivery again at the customer’s home. Given the low-profit margins of the various cobbler services, this service could only be economically sustainable for the leather regeneration activity, which had higher profit margins, a high degree of complexity, and was also a difficult service to find at classic shoemakers.

The two brothers decided that the best approach to develop the service was to start from the analysis of the already implemented offline delivery methods.

Before defining the cost of each regeneration or restoration of a leather product, it was necessary to analyse the state of deterioration of the customer product, to understand the processing methods and times. Since it was not possible to view the product or touch it by hand, they imagined that this limit could be circumvented by the customer by sending photos of the bag/shoes to be repaired. The best way to approach customers to the new service was in fact to offer them the possibility of having a free and simple quote only by sending a few photos.

For the logistics, however, they decided that they could rely on the same supplier used for the sales of products on the e-commerce site.

To validate the new service, Giuseppe and Orazio decided that, from that moment on, when a customer asked if there were any stores in his area, Orazio would respond by proposing the service, as they had imagined.

The results were no long in coming, and the service immediately found good responses from online users, who have long wanted to be able to take advantage of the services offered by the Shoemaker Shop.

One of the reasons for the immediate positive response of the market is to be found in the high degree of trust that users had towards the Bottega del Calzolaio, which had by now consolidated an important online brand identity, as also demonstrated by the positive reviews on the various online sites.

The online response was so positive that, after a few months of experimenting with the activity, at the beginning of 2018, Orazio and Giuseppe realized that it was necessary to structure an ad hoc system to fully digitize the shoe service.

They decided that it was necessary to open a new website, connected to the main e-commerce site, dedicated exclusively to the shoemaking service. This allowed to give the service greater visibility and at the same time to allow better management of the Customer service.

From an organizational point of view, it was necessary to define which services it was convenient to offer online, in addition to the fur regeneration service. Analysing the logistics costs incurred and the profit margins on all services, they finally decided that it was possible to complete the offer of services, also implementing the dyeing, repair, and dry cleaning of shoes. If the free estimate system, using photos, had met customers' expectations, Giuseppe and Orazio realized that it was instead necessary to insure the goods during transport, both outward and return. In the offer developed, the logistic service was borne by the Shoemaker's Shop, which also assumed the risk of loss or damage to the products.

The bags that customers shipped were luxury bags, which were also worth more than € 15,000. Orazio and Luca understood that to reduce the risk associated with the damage or loss of these products, it was necessary to ensure the goods during the journey.

When they interfaced with their logistics partner to explain their strategy, he refused to apply the insurance clause on the transported goods. Numerous other logistics suppliers did not want to apply insurance clauses for the transport of such precious goods. After numerous talks with various companies, they finally managed to find the logistics partner willing to insure the goods. This eliminated a major obstacle to the scalability of the service.

A disservice, such as the loss of a prestigious bag would cause damage to the corporate image, which could definitively compromise the success of the initiative.

From an organizational point of view, with the increase in the work of cobbler, also due to the new online activity, it became impossible for Orazio to continue to deal with the customer service, a demanding and at the same time critical activity for the success of the online business. With Giuseppe's support, an ad hoc customer service resource was hired with the task of responding to customer requests, assisting customers in pre- and post-sales, retrieving feedback, interviewing, managing orders, and supporting the warehouse manager for returns, changes, and customers' requests.

Starting from the integrated analysis of customer data and global searches carried out on Google, Giuseppe had also defined a targeted and customized ADS strategy based on the different types of users, to better target the promotion of the new service.

Based on the strategy described, the "Il Calzolaio Online" service was officially launched at the beginning of 2018 with a website (calzolaio.online) dedicated exclusively to offering remote shoemaking services.

2018 ended with a turnover of € 435,338.00, an increase of just under 70% compared to the previous year, of which 55% deriving from online activities.

The Del Vecchio brothers, through digital technologies and the precious support of Giuseppe Noschese, had strongly worked to realize their father's dream of "bringing the shoemaker to as many customers as possible", radically innovating not only their business but precisely the profession of the Shoemaker.

Google and the Financial Times have also recognized the impact of the innovation made by Orazio and Luca in the craft sector and have included La Bottega del Calzolaio in the prestigious "Europe's 100 digital champions" list, recognizing the company as a leader in digital transformation at European level. Based on the success achieved both in terms of turnover and prestige, in 2019 Orazio and Luca, on the advice of Giuseppe, decided to include two other figures in the company staff, dedicated exclusively to digital activities: a Web designer and an ADS expert. The first had the task of improving online and offline visual communication, allowing a reduction in the time of the creation of online content for corporate sites, while the second had the task of managing all activities related to online advertising, to increase traffic and conversions, optimizing advertising investments.

The investments made and the gradual but overall digital transformation of the "Bottega del Calzolaio" paid off, and 2019 ended with a turnover of € 600,798.00, of which 60% came from online sales.

Despite the collapse in turnover resulting from the pandemic for Covid-19, in 2020 the importance of digital transformation was even more evident, with a total turnover of € 339,691.00, of which 90% deriving from online activities

- 5) What kind of activities can be promoted and realized to replicate the model?** Research and selection of managers with a managerial and technological vision to educate people to transfer the vision of CAD and the approach on which it is based create a network with firms, universities, and other local

players, to structure collaborations based on open innovation recovery of an abandoned building, and implementation of an urban redevelopment project develop a laboratory with the technologies necessary for the artisan crafts of the reference area.

- 6) **What kind of financial resources could be mobilized to scale the model?** In the financial strategy of Amleto and his partners, today the use of Ministerial or regional public funds is not foreseen, because there are no funds that can be accessed to replicate the CAD model.

Data analysis

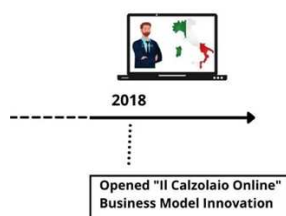
Tab1: Company turnover trend (2018-2020)

Year	City	Total turnover	Product %	Service %	Note
2018	Battipaglia post online	435.338,00 €	55%	45%	Open "Calzolaio online"
2019	Battipaglia post online	600.798,00 €	50%	50%	
2020	Battipaglia post online	339.691,00 €	40%	60%	

Tab 2: Percentage trend of turnover by "offline" and "online" activities (2018-2020)

Year	% Offline turnover	% Online turnover	Note
2018	45%	55%	
2019	40%	60%	
2020	10%	90%	3 months of lockdown

Figure 2: La Bottega del Calzolaio innovation timeline (2018-2020)



Support material

- National TV report on "La Bottega del Calzolaio": https://www.youtube.com/watch?v=90ZJ_gR3vH0
- Europe's road to growth 2018 Financial Times: <https://www.ft.com/content/6d68a236-e153-11e8-8e70-5e22a430c1ad>
- "La Bottega del Calzolaio" official website: <https://www.labottgadelcalzolaio.it/it/>
- "Il Calzolaio Online" official website: <https://www.calzolaio.online/>
- Video presentation of the new service "Il Calzolaio Online": https://www.youtube.com/watch?v=faZzjrmOYSU&list=TLGGIc4RZ8Sn5_szMDA3MjAyMQ&t=32s
- Facebook official page: <https://www.facebook.com/labottgadelcalzolaio1916/>

Teaching Notes 15: Innovation of a century-firm in the tire sales sector: The case of Picone

Synopsis

The case study is on Picone srl, a centuries-old firm operating in Italy in the tire sales sector.

Starting from the first decade of the 2000s, the tire distribution market in Italy had become very complex, characterized by low-profit margins, commercial agreements for exclusive distribution, and competition between large distributors and SMEs.

Up to that moment, while innovating the business model, Picone srl had operated according to the classic business model, purchasing tires from manufacturers firms, and carrying out wholesale sales to workshops and retailers.

Analysing what was happening in the US tire distribution market, where manufacturers were selling directly to final consumers through the opening of a proprietary e-commerce site, Sebastiano and Vincenza understood that direct sales by manufacturing companies would cut out both wholesale distributors (such as Picone srl) and retailers from the market.

In the same period, the spread of e-commerce in Italy was still in an embryonic state and had not affected the tire sales sector. At the time, most of Picone's competitors saw the internet as a threat, Sebastiano and Vincenza understood that it could be an opportunity for their firm.

Trying to seize the opportunity offered by digital, they relied on numerous agencies, but despite the high investments, the results were unsatisfactory. After the initial failures, Sebastiano and Vincenza found agencies capable of supporting the digital transformation process and business model innovation. The growth in firm turnover (see figure 1 in the case) demonstrates how the entrepreneurial intuition of Sebastiano and Vincenza was successful.

Business issue/challenge

Picone srl was operating in a saturated market, with low-profit margins, where small firms had to compete with large distributors, with turnover even more than 20 times. The growth strategy implemented until 2010, based on classic distribution and the increase of market shares through exclusive agreements, was now unsustainable. The advent of the internet in the market risked permanently compromising the survival of the firm. How could the firm innovate its business model, to transform the threat of digital into an opportunity?

The case wants to put students in the shoes of Sebastiano and Vincenza, so that they can critically analyse the steps that led to the innovation of the business model, as a strategy to get out of a condition of "crisis". Furthermore, the case offers to students the opportunity to critically analyse the resources needed to implement a digital innovation process within SMEs.

Learning objectives

- Highlight the importance of digital technologies and skills in business model innovation.
- Understand the critical issues and opportunities of the first mover.
- Highlight the importance of digital technologies for the survival of SMEs.
- Demonstrate how entrepreneurial intuition can transform a threat into an opportunity.

Target audience and prerequisites

This case can be used in courses about Entrepreneurship, Digital Entrepreneurship as well as in General Management Courses.

Suggested teaching strategy

Discussion Methods. Sessions of 60 to 90 minutes. Students read the case individually. Subsequently, a group discussion on the case is established. Push the class through discussion to identify the critical issues of the sector and the company and to define a possible strategy for the company.

Answer to discussion questions

- 1. Business model and strategy are often used equivalently, however, they are different. The Business Model describes the configuration of the business system of the firm as a whole, while the strategy describes how the business model is combined with a particular market context of the firm (Grant, 2015 p. 214) in your opinion, in this case, is there an innovation strategy innovation or a business model innovation?**

As described by Grant (2015, p. 334), companies operating in mature sectors are called upon to carry out corporate restructuring processes, understood as strategic and/or structural changes. Today, there is a consensus that business models, as a source of innovation, are important vehicles for business transformation and renewal (Zott et al. 2011). In the Picone case, Sebastiano and Vincenza implemented an innovation of the Business Model, because the change involved the redefinition of the company as a whole. In the Picone case, there is a change of Customer segment, with the transition of core activity from BtoB to BtoC. Picone has changed the channels and the customer relationship, basing the business model on new customer relationship management approaches, enabled by Information Communication Technology (ICT), and shortening the channels, reaching the final customer directly. In the revenue model, there has been a shift from selling based on quantity, classic role in the BtoB market, to a sale based on single BtoC units, with a consequential change in pricing and therefore sales strategies. To carry out the restructuring of the business model, human resources with specific digital skills were hired, employed in new key activities. In addition to human resources, the company has an internet infrastructure linked to the e-commerce site and the improvement and adaptation of the warehouse management information system. The company has also decided to forge strategic partnerships with some national web agencies, for the development of digital and marketing strategies. The choice to internalize new human resources and outsource services related to logistics and strategic consultancy and the elimination of the figure of the commercial agent has also had an impact on the redefinition of the cost structure.

- 2. The firm has a centuries-old history. Every strategy also needs an alternative plan B, which one would be yours?**

The entry into the B2C market placed Picone srl, in conflict with its B2B market customers, who perceived their supplier as a new competitor. Sebastiano was aware of this he explained to his customers, owners of the workshops, that his goal was not to cut them out of the market, but to ensure the survival of his own firm. Furthermore, Sebastiano pointed out that the workshop still played a fundamental role along the tire value chain, since, even if consumers bought directly online, it was still necessary to go to a workshop to change tires.

Sebastiano was aware of the risk to which his firm would have exposed by implementing such a radical change of the business model and had developed a plan B to be implemented in case the online sale had not taken off and a good part of his customers in the B2B, decide not to buy from him anymore.

Plan B consisted in the opening of a network of tire shops, through which Picone could offer tire sales and change services at cheaper prices than the competition. The Italian tire sector in those years (2010 - 2011) was characterized by a structure based on small properties, and there were very few workshops open in franchising.

Plan B, despite having been well designed, was still more complex and complex to implement, as it required high start-up costs and in addition to the difficulty in finding specialized personnel.

- 3. What are the key competences of this transformation process?**

As highlighted in the introduction to the case, certain skills were fundamental to the realization of the digital innovation of the business model. Certainly, Sebastiano's farsightedness in observing what was happening in other markets, especially in the US, highlights the entrepreneurial ability to pay attention to global trends, understanding in advance how certain phenomena could also have repercussions in his market. The entrepreneur's ability to detect and exploit opportunities is certainly one of the most debated issues in the literature (Baron and Ward, 2004; Gaglio and Katz, 2001; Shane and Venkataraman, 2000). As highlighted by Klaus et al. (2018), in the digital world, entrepreneurs need to be aware of the opportunities offered by digital transformation to develop sustainable innovations.

The literature also dwells on the entrepreneurship orientation in terms of proactivity, innovation, and risk-taking as three standard dimensions of entrepreneurial orientation (Covin and Slevin, 1989; Lumpkin and Dess 1996; Covin and Lumpkin, 2011). These elements that are certainly present in Sebastiano's approach to business management. Consistent with literature (Soltanifar, 2016), Sebastiano created value by taking the risk of dealing with uncertainty, which is inherent in exploiting the opportunity.

Sebastiano's entrepreneurial mindset, however, would have been insufficient without Vincenza's digital mindset. The expertise gained by Vincenza in her previous work brought to the company an innovative vision compared to Sebastiano's. Vincenza knew before and better than Sebastiano, the logic of online sales. In a world characterized by the progressive development of faster and faster internet connections and the proliferation of new information and communication technologies, it is necessary to have a digital mindset and the analytical skills to seize opportunities.

Digital mindset goes beyond introducing digital technology into strategic plans. The digital mindset Vincenza brought to the company, is about the ability to have an entrepreneurial vision and overall strategy, as well as the leadership to develop that mindset organization-wide.

Vincenza brought her digital mindset, through open communication with her organization, creating a culture of innovation and proactivity. .

4. What do you think are the essential elements to be successful in online business?

For Sebastiano there is no an instruction manual for success in online business, however, there are rules he has learned from his experience, made from many investments and experiments, necessary to innovate the sector as a first mover:

- It is not convenient to internalize digital strategies, i.e., those figures in charge of developing digital strategies. According to Sebastiano's experience, it is preferable to rely on external consultants, because from the experience they achieve by working with multiple companies and in multiple sectors, they can increase their background and bring greater value to the company.

- In the previous business model (non-digital and exclusively B2B) the high cost of sales agents and the need to have a large number of agents to meet the space/time constraints was the bottleneck for the company's business. That was already struggling to keep up with the competition in a saturated market with low-profit margins. Through the digitization of the business model, and the almost total transition to the B2C market, the rules for acquiring and managing customers have changed. Today there are no more commercial agents. Customer acquisition and care are managed remotely. Customer relationship managers use new approaches to managing customer relations through the use of ICT-based solutions (Grant, 2015. p 337). The company has two customer relationship managers, one for the B2B segment and the other for the prevailing B2C segment. Given the centrality of these figures to customer acquisition and management, Sebastiano and Vincenza decided to internalize them. In fact, through internalization, it has been possible to transfer company values to customer relationship managers, which must be a guide for carrying out the activities. Relationships with customers are different and each relationship with a customer can generate exponential impacts, both negative and positive, because of the review system. For this reason, it is important to take care of every contact with customers with the utmost attention, not only in the sales phase. For this reason, the customer service employee must be aware of the crucial importance of his role.

- There are no defined competitors, but new competitors can enter the market every day, not necessarily structured companies but also individuals who practice drop-ship activities. For this reason, it is necessary to constantly monitor market trends and price changes on the various marketplaces and price buyers.

It is necessary to have a different approach towards suppliers. Given the different logics of the B2C online market, it was important for Sebastiano to define different supply agreements with the manufacturers. Online sales are not sold in batches but, at times, single tires are sold, therefore it is necessary to be able to negotiate upstream of different purchase conditions, in terms of price and minimum quantities.

The demand is very variable, and it is necessary to be prompt in the answer because if a consumer does not find tires at Picone, in a second he can find them at another supplier.

5. After gaining an established position in online sales, how would you innovate the firm business again?

After reaching a national leadership position in online tire sales, Sebastiano and Vincenza have created a further innovation of their business mode offering new services and products. Based on the reasoning made in defining plan B, they decided to start an "Officina Picone" affiliation program. The program offered workshops on the possibility of joining the "Picone Pneumatici" network, by paying an annual fee, thus becoming an official tire collection point. In this way, the workshops, located throughout the country, can attract customers who buy online and need to rely on a tire fitting workshop.

Following the affiliation program, Sebastiano and Vincenza have decided to invest their accumulated know-how in the digital transformation of the sector, offering an additional service for tire workshops. The Marketing office of Picone srl, headed by Vincenza, developed a new service in 2019: "Pi.web".

Pi.web is a web agency that aims to bring workshops online, take care of their social networks and their positioning on search engines. The workshop sector in those years was still very far from the logic of digital transformation, however, Sebastiano and Vincenza realized that there was a lot of potentials, and they decided to invest in this new adventure, which immediately received a good response from the workshops.

In the same year, Sebastiano and Vincenza decided to develop a new project in the food sector, in collaboration with local farms. "Picone Gusto" is a luxury gastronomy line that aims to enhance the gastronomic excellence of the Cilento area. The idea was born from the desire to enhance the potential of the area, taking advantage of the large flow of users who daily decide to shop on corporate e-commerce. In addition to the creation of the products (jams, craft beers, biscuits, etc.), Vincenza was responsible for structuring the marketing strategies for the launch of the new project. The products could be purchased on the Picone website, in a specific area dedicated to "Gusto Picone".

A further innovation introduced by Sebastiano and Vincenza in the tire sector concerns retail. In December 2019, the first Picone Showroom was inaugurated in Vallo Della Lucania (a small town near Prignano). A new showroom concept design that is unique in Europe and appreciated by large companies in the sector. The showroom is an elegant and innovative space, a real boutique where you can buy men's jewellery, "Gusto Picone" products and admire as if it were a museum, the tire, and car accessories exhibitions of the major brands.

Support material

- History of Picone firm: <https://www.youtube.com/watch?v=aygSLfssrIc>
- Other information: The marketing strategy implemented by Vincenza Del Verme, the company's Marketing and Business Development, was always based on a combination of online and offline activities. In addition to the ADS online initiatives, the firm sponsored the Lazio football club, a militant in the Serie A championship, as well as numerous television broadcasts on the national RAI 1 network.
- Picone has always shown a strong social vocation and has financed numerous awareness campaigns on the issues of driving safely, collaborating with the "Traffic Police" and the "Italian Red Cross".
- Sebastiano and Vincenza are very attached to their territory and, in addition to having decided to keep the company's headquarters in Cilento, they finance numerous cultural and sporting initiatives throughout the territory as a company.



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