Digital Transformation in the Drugstore Industry: A Case Study

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Abstract
The phenomenon of digital transformation has become widespread and relevant in a variety of industries. This era of transformation has changed the traditional business models. However, the implementation of digital services in the drugstore industry, has developed at a relatively slow pace. The core of the drugstore business model has remained product-centric and therefore pharmacies are still in an experimental phase when it comes to offering more than the traditional products. Digital services play a vital role in such occasions because they accelerate the process, making it easier to implement. This research, using the case of an innovative pharmacy located in Albania, will give an outlook of the challenges faced by this industry on daily basis and the opportunities for innovation, how important is for the customer the value added to the product they purchase, and also an overview of what the process of digitalization might look like for this industry.

Keywords: Drugstore Industry, Digital transformation, Digitization, Online Service

Introduction
In recent years, the pharmaceutical industry has been going through extensive changes. This industry is being shaped by digital transformation as digital services surpassing the product itself are getting combined into the variety of offerings. Healthcare players, differing from other industries, have been falling behind in offering digital tools to the customers. This digitization era is changing what healthcare system looked like and connected health, as a concept, shows great potential for the ones involved to benefit by delivering a value-added experience, improving health products with a smaller cost. Understanding how important is providing services that go more than just being pharmaceutical products, Joseph Jimenez, CEO of Swiss healthcare giant Novartis claimed that “beyond the pill is a logical and inevitable path forward for all” (Bloomberg 2014).

Digital transformation has transformed the way pharmaceutical companies have been operating their business for years now. But in the forthcoming business models of pharmaceutical companies what will be the exact position of digital services? Although currently this industry is testing and putting into action such services, we can say that the main focus on this business model at the moment is the product itself. The real question remains to how far these services can shift the course of the business model. This period can be thrilling and fast forwarding for the whole pharmaceutical industry because this will mark the beginning for future business.

The aim of this paper is to estimate how far will go the restructure of the existing business model of pharmaceutical companies, especially pharmacy “Daja”, using digital transformation and new digital services that came with it. The results should disclose the purpose that digital transformation will serve and give insight into the interaction between new services and products. This study should provide suggestions to pharmaceutical companies who will want to pursue with the digital transformation and integrate new services into their actual business model. The scope is to pilot the digitization as applied to the one of most well-known drugstores in Tirana. Qualitative empirical research was conducted to gain more insight into customer’s demographics, what they want, what they expect from the pharmacy and how they feel about this whole new
movement towards digitalization. A total of 40 surveys were collected from two different locations where pharmacy “Daja” operates.

2. Literature Review

2.1 Value co-creation

Every company’s goal is to create competitive advantage among other businesses, and this cannot be done by selling standardized products or even by giving their customers superior value in relation to its competitors. Nowadays companies must do more than that, they must co-create value with their customers. Co-created value result from being able to offer customized and unique experiences for the customer.

If the customer can provide his or her experience by interrelating with a company’s product or service and make a positive recommendation throughout the lifetime period of its usage, the ultimate goal of the organization is achieved. In this way, both customer and the firm are satisfied, in this way the firm derives greater value thus higher profits, customers’ loyalty and brand equity. We can define value for the customer as an event that makes them feel better, supported by the process to create value. The companies’ role in this process is to serve as an intermediary by offering value suggestions, not delivering value. To create value is needed both the one that offers and the one that benefits. (Grönroos, 2008).

In the early 20th century the company focus shifted from a product-centric model to a more consumer-centric model. This kind of change happened progressively where awareness of customer satisfaction would increase towards business models that endorsed the importance of marketing. The customer became the center of attention and not just the recipient of products. The reasons for this change from product-centric towards consumer-centric are diverse. By stressing to improve marketing productivity there was an increase in market diversity and increase of competition as well. Having said that, consumers demanded more and were better informed, mainly because of advances in technology. If a company will move from product-centric to consumer-oriented model concepts, like mass-customization, co-production, becomes applicable. A customer-centric model requires more than just increasing customer satisfaction. Such model means “collaborating with and understanding from customers and being able to adjust to their personal and unique needs. This logic implies that value is determined by and co-created with the consumer rather than being fixed in final product”. (Vargo & Lusch, 2004).

2.2 Digitalization as a whole

Digitalization is that central force that influences and changes largely our society. Just like industrialization, a force of transformation, digitalization is not only showing us new ways to improve the quality of our lives, but is doing much more, is bringing major changes to how we all, as a society, work and function. All these changes coming in waves did not only brought new products, technology and services but they also affected deeply our human behavior. (Bosch, 2017).

Digitalization invisible hand touches and affects virtually everything making it look like we can have it all under control but at the same time it is fully imaginable and ambiguous. (Crnkovic, 2017). Multiple factors effect on the opportunities that rise from digitalization where the most important ones are the evolution of the Internet, developments in infrastructure for ITC (information communication technology), globalization etc. The results from this development are completely new business models, optimizations in resource use and production, automation of processes and a lot more. All these opportunities may seem great, but with the rapid changes the world is going by, they require a maintainable approach.

Digitalization is everywhere, it takes part in many different industries like Industry 4.0, Mobile Apps, Internet of Things etc. Several terms, sometimes used instead of each other, are used to define the procedure of applying digital technology to improve and boost a business. There has always been some misperception when it comes to terms like digitization, digitalization (even though there is only a 2-letter difference) and digital transformation. Digital innovation in businesses requires exploring every present procedure to make the needed improvements to accomplish their digital objectives. A problem that every firm has to go through is whether they stay in the digitization of the business procedure or actually complete the digital transformation of the business. Two of the terms that get confused all the time are “Digitization” and “Digitalization”, yet they have diverse meaning. Likewise, the expressions “Digitization” and “Digital Transformation” are blended in numerous writings, making it difficult to distinguish one from the other.

Digitization is called the process where information is converted into a digital format, left as it is, or it could be improved and optimized for a better outcome. The result can be an image, an object, a document etc. When we hear, a business say
they have been digitized, it probably means that they just converted all their analogue paper documents into digital and that instead of manual procedures they have created models of procedures represented digitally. Normally and in most business cases it's far more important that the data which capture software can retrieve from the scanned image, by using all sorts of intelligent and less intelligent capture technologies, are extracted in a digital form and leveraged to feed a workflow, a business process, a system, whatever is needed to achieve an outcome. This Digitization is a good start, but it is not a Process Digitalization nor a Digital Transformation. (Brynjolfsson & McAfee, 2012).

Digitalization in businesses instead, refers mostly to allowing, improving, converting business models, processes, functions or activities, by using digital technologies and a wider use and context of digitized information they already have, turned into a asset ready to be used with a specific benefit in mind. Digitalization is used to transform manual procedures into digital procedures in a more dynamic way, more efficiently, more beneficially and with a bigger satisfaction, when it comes to the experience their clients will have with the firm in their face to face or digital involvement. It needs digitization of resources, but it is much more and in the middle of it is data. Although digitization is more about recording data into systems and, facilitating customer's journey, digitalization is about improving customer experience and making their interactions simpler and seamless by using digitized procedures and information. So, digital data is in the core of digitalization and it is crucial in finding the best outcome and generating new income by optimizing its costs and creating that new valuable customer experience.

It can be said that digitalization has become more and more real and has spread to that extent that is part of all businesses on a way or another. Even customer’s expectations are higher now and to respond to these changing expectations, even companies that have nothing to do with technology must implement it. (Bosch, 2017; Grebe, M., Morbé O., & Döschl, S. 2014).

2.3 Digital Transformation

Digital transformation is the process that does the incorporation of digital technology into all areas of a business causing in important changes to how the firm operates and how they create and deliver value to customers. On top of that, this transformation is a cultural change that all the businesses must go through. The beginning might be difficult because it means walking away from traditional business procedures that companies were used to in favour of quite new processes that are still being shaped. Digital Transformation is about doing things in a different way, it is not just about programming or incorporating technology into an existing procedure to increase the present value chain, but to, adjusting the business model, changing the value chain and creating a new source of products and services, which lead to a new and better way to deliver customer value. This means that the current processes will undergo through modernization, simplification also new processes will be created in order, to make everything in the new business rethinking run smoothly. (Broy, 2017).

Changes, regarding the strategy, technology, operations and overall culture of the business will be happening, where procedures have a key role combined with the data. Digitization itself cannot make a transformation, it is essential to incorporate digital technologies into current procedures to accomplish a business evolution, also called digitalization, properly using digital data, giving added value to customers, earning more revenue and optimization of business processes. Also, digitalization is not enough for a whole digital transformation of the business, as it will be needed to give a feedback to the new business models that have endorsed the new automatic business processes that give you the possibility to give the new offers when it comes to services and products for its customers.

The key factor of success for digital transformation process is the goal that the businesses have to deliver and maintain a dynamic organization that can continuously reposition itself (Bosch, 2017). Firms don’t have to be the first to invent something in order for them to use it later, they can adapt to the technology that can be found in the given time. The difficult part for the one thinking to transform is that they have run their existing business, while at the same time continuously innovating for tomorrow. This can be sometimes frustrating for the managers and the ones in charge because even though they believe in the full potential of disruptive technologies, and their ability to bring change for the best, it can be hard sometimes to get the wanted result in a short period of time. (Brynjolfsson & McAfee, 2011; Fitzgerald et al., 2013). As has been mentioned formerly, businesses are starting to feel the necessity to implement digital solutions. Firms in different fields of business have set the expectations for an up-to-date, interactive digital business. But, technology by itself holds no real value. The gains from implementing a disruptive technology depend on how value is created and captured using the business model (Teece, 1986). Chesebrough (2010) states this through the statement:
“A mediocre technology pursued within a great business model may be more valuable than a great technology exploited via a mediocre business model” (Chesebrough, 2010, p. 354)

Not only digital transformation but also business model innovation are ways that businesses go through to renew their competitive advantage. Both forms can be used to boost their activity in a never sleeping world. A big difference, though, is that digital transformation lies its focus in introducing and implementing the new technologies into the business model, without consideration whether it is made on a strategic or operation level. (Brynjolfsson & McAfee, 2011).

A digitally transformed business is not always a built from scratch kind of business, but more of a traditional business model using and selling the same products but this time brought to the public in an improved way, wrapped with digital technology. Companies that restructure their organization through digital technology or introduce digital products, and services like online consulting, that complement what they were already doing, would go broaden and create a new digital business. Pharmaceutical companies with this new wave are pushed into increasing what they have to offer and focusing on creating value. As a response to the need of discovering profitable innovation in a market that already exists, pharmacies must find a way to integrate their services and products to value-added services and use business models that turn the value into revenue (Rand, 2012).

2.4 Pharmaceutical Industry

In 2017 with almost US $1.1 trillion in drug sales worldwide, the pharmaceutical industry has become one of the largest industries in the world and it is expected to reach nearly US $1.5 trillion by 2021 (Aitken, 2016). Even though this industry is one of the biggest industries it is followed by strict regulations in a highly risky market with a long and very costly research and development periods. The whole industry goes around patents and their importance is crucial in the process of research and development which often takes monopolies side. Brand name companies are called companies that gets the executive right to produce and sell self-developed drugs and medicines. In the moment, these patents expire the whole market can produce and sell drugs using the same the same compounds of elements.

Pharmaceutical companies are formed in a such scheme where can be found a correlation between doctors, pharmacists and healthcare payers directing the process of drug selection and reimbursement. Doctor prescribed medications need the doctor approval for buyers to purchase from authorized pharmacists. Meanwhile, ‘over-the-counter’ drugs can be bought without the need of the doctor to authorize the purchase for you. Healthcare payers is called the person or the organization, such as the government or the insurance companies, that pays or reimburse the total or partly cost of health services or number of prescript drugs.

The pharmaceuticals market in Albania is perhaps the most problematic market in terms of regulation and competition where prices and quality are at odds with developed countries. Unlike in other markets, drug demand is not directly determined by the consumer (patient), but by doctors, and thus the consumer is unable to make his choice based on cheaper prices and better quality but as a rule follows the doctor’s instructions. Doctors, in a few cases, have connections with pharmaceutical companies and have a significant impact on their competition or market distortions. So, the demand for medicines is inelastic and the consumer has no role in deciding on competing products and determining their price. On the supply side, competition is limited because of the high degree of market power by patent holders. For these reasons, it is understandable that the pharmaceutical market cannot function in terms of competition and by the fact that many governments consider health a necessary public good (the concept that regardless of the patient's financial condition, he should have a pharmaceutical service) the market is regulated. But despite regulation, it is acknowledged that competition can and should play a key role in market well-being for patient benefits, meaning more choices, more innovative products, and lower prices.

Information asymmetry is often encountered in the pharmaceutical industry due to the relationship between the doctor and the patients, the doctor and pharmaceutical producers/importers and is one of the main causes of market failure on demand and supply basis. But the main issue of regulation and competition in this market remains that the price is controlled by the ones who have the patents whose main goal is maximizing their revenues. On the demand side are the doctors who decide “in the name” of the patient and of in their prescriptions often ignore the pricing criteria and that the patients may not able to buy the product. Today’s pharmaceutical industry is suffering the paradox of “generic products” after the expiration of patents, which allow the price cut when the product is produced generically (as a rule, patents for a drug last for 10 years). Even in Albania, the price of drugs in the market is controlled through fabrication and trading margins, which are determined
by government decisions. This control over medication prices becomes important also due to the fact that some of the drugs that are traded are reimbursable by the state. The maximum selling price of medicines by domestic manufacturers is determined by calculating a margin of up to 20% above the cost of production. The maximum price limit for imported drugs that are not included in the Refunds List is set by calculating a margin of up to 18% above the price of CIF (cost, insurance, freight), in ALL. For Refunded Drugs, differentiated margins are applied, which for wholesale are respectively 12%. (Melani, 2014).

2.5 Digitization of Healthcare

Every industry, including the healthcare industry, is going through important transformations due to the implementation of digital technologies. This part provides an outline of these developments that cover the way for the digital transformation in the pharmaceutical industry.

Modern medical practice is determined by observed and proven methods for the curature of illnesses. Different laboratory testing, diagnoses using specific devices, and further data sources give them needed information about the patient to make an informed decision possible. In this procedure patient, itself does not take part in neither collection nor interpretation of this information, digitization is now allowing them to be part of this process; ‘patient-driven health care’ (Swan, 2009). These days it has become an increasing trend these wearable devices that allow individuals to collect “biological, physical, behavioral or environmental information” about himself, an activity called ‘quantified self-tracking’. Over 3.7 billion healthcare apps downloaded in the android and iOS virtual stores in 2017 prove this transformation of patients to a digital era of healthcare (Uzelf, 2017).

Together with the patients’ rising participation in healthcare delivery, digital technology progressively structures the whole healthcare landscape and its nature of interaction between all parties involved. This healthcare information technology comes in forms of electronic health records which are digital substitutes for traditional medical records, personal health records collected from the patient himself wrought different individual devices such as smartwatches, Fitbit. Digital transformation in health sector guarantees significant benefits when it comes to efficiency, quality and delivery of care (Chaudhry et al. 2006). The health data gathered, can be accessed, shared and examined anywhere with the help of health information technology, using a method called ‘connected health’. Because of healthcare records becoming digital it is easier to communicate and manage this information. Not only the doctor-patient communication become easier, but patients and healthcare providers amongst each other are connected and empowered to exchange data, experience and advice.

3. Methodology

The following chapter outlines the research methodology used in this study. This research has followed descriptive research analysis. Descriptive approach illustrates the ideologies of population. The collected data are quantitative in nature and are validated through numbers and percentages. It can make valuations and can compare factual data describing relevant phenomena. (Kothari, 2005, p. 3).

The best method for this research was thought to be by conducting a survey that random costumers would fill out after purchasing something at any of the locations of pharmacy “Daja”. Because of the anonymity of surveys customers tend to give more truthful and valid answers. To have the most accurate data, the clients need to be as open and authentic as possible with their answers. Surveys conducted anonymously provide an opportunity for more unambiguous and honest responses than other types of research methodologies.

When deciding for the questions to ask was little difficult this for the only fact that clients that enter the pharmacy might not have time or might not want to answer the survey because they don’t feel like writing a response. That is why the final survey is only composed of scale questions from 1 to 5, also called Likert scale and two yes/no questions. Using this type of questions like Likert Scale questions has its own advantages meaning it is a universal method of collecting data, which makes it is easy to understand them by all. Working with quantitative data, it is easy to come to a conclusion, report results and draw graphs from the responses. Additionally, since Likert Scale questions use a scale, it facilitates the process because people are not forced to express an either-or opinion, rather allowing them to be neutral should they so choose. Once all responses have been received, it is very easy to analyze them. (Gee, 2017).

The main goal for this research is asking ‘how’ much understanding the clients of pharmacy “Daja” have on the process of digital transformation and how ready are they to be part of this transformation.
3.1 Sample and data collection

The researcher had a direct contact with the owner of one of the pharmacies and after agreed to what questions would be the best suitable for the business and also for the researcher the entrepreneur helped with the process of delivering and collecting the primary data. The survey conducted was distributed to random costumers that entered the pharmacy to purchase something.

The available period to fill the surveys was 2 weeks, from June 1st to June 14th and during this time from both locations where Pharmacy “Daja” operates were completed 40 questionnaires. The aim of conducting this research is to understand better the consumer, how satisfied he is, what he wants and how he reacts to new models. After the preparation of the survey it was delivered to the main pharmacy and later, they distributed also at the other location when there was a 2-week period to fill them. After this period, the researcher gathered the data from the pharmacies and since they were filled in paper base, he had to manually refill them into Google form so he could get the descriptive statistics and frequencies for each question. The survey was composed of a total of 12 questions grouped in parts so it would be easier to interpret. Starting with residency and age would give us an insight on the demographics of the costumers that purchase there. The third question helps in understanding if the costumers that answered the survey are regular clients of the pharmacy. The next group of questions were the yes/no questions that would lead to the approach the costumers have with the idea of the online model pharmacy, if they ever thought to purchase drugs or get help online. The other section questions related to their opinion on how helpful it would be for them if pharmacy “Daja” opened a website for online orders and consulting. The last group of questions was mostly useful to understand what is important for them when it comes to quality or price of products, their approach with the instore environment and suggestions related to online presence of the pharmacy.

4. Analysis and Findings

Directly after collecting the surveys from the pharmacies all the data gathered was entered into google forms which generated the summarized tables with the frequencies for each question answered, to be analyzed later on. All the questions were grouped into subgroups to make it easier the interpretation.

4.1 Costumer demographics

In this group, there are questions regarding the residency and age of customers that answered the survey. Most of the clients are from Tirana, making this the most frequent answer. It can be said that its main source of income comes from Tirana and there is a huge gap with other cities.

Age is an important factor to understand costumers and the way they think and approach to the digital transformation because different generations have different knowledge related to the digital technology. It resulted that the mode of this sample is age 36. It can be said that most of costumers are from a young age up to the age 34 making the understanding of new approaches easier. The highest frequency is between age 25 and 34 with 35%, and the other two groups 35-44 and 45-54 have equal percentage 17.5%. there is only 2% over 55 of age.

Table 4.1 Age frequency

| Age Groups     | Frequency | Frequency in % |
|----------------|-----------|----------------|
| Less than 18   | 1         | 2.5            |
| 18-24          | 9         | 22.5           |
| 25-34          | 14        | 35             |
| 35-44          | 7         | 17.5           |
| 45-54          | 7         | 17.5           |
| 55 and over    | 2         | 5              |
4.2 Brand Recognition

Figure 4.1 How well do customers know what pharmacy “Daja” has to offer.

Figure 4.1 shows how good customers know what product and services the pharmacy offers them. Of the total number of respondents, more than 60% of respondents happen to know the products and services good or very good, 27% are neutral and only 7% of them have little knowledge about the pharmacy. This means that 62.5% of customers that answered the survey go at the pharmacy regularly and only 10% go at the pharmacy rarely.

4.3 Approach to online medical products

The following questions give an overview on whether customers are used to this new model of online stores. Have they ever thought to purchase a pharmaceutical product online? Have they ever thought of getting medical consultancy online? Answers of these questions will show the view of respondents and will help the analysis process of the researcher.

When customers are asked if they would buy pharmaceutical medicine online, as seen from figure 4.2 below, 62.5% answered no and only 37.5 yes. This outcome might be related to the nature of not trusting, not having faith on online orders. Also, another reason might be related to the low level of online purchasing patterns in Albania which might have influenced customers to answer in this way.

Figure 4.2 Purchasing drug store medicine online

4.4 Online Medical Consultancy

As it can be observed from figure 4.3 below, 65% of customers are positive when asked if they would look for online medical consulting when it comes to health issues. Apparently 35% do not believe on online consulting and prefer face to face consulting.
These questions give an overview on what costumers think for this new wave of business models that are going through digital transformation. They were asked if it would be helpful for them to open an online page where pharmacy “Daja” sells different products and provides online consultancy. When asked how helpful it would be for costumers, if the pharmacy would sell different products online, as seen in figure 4.4 below the majority of them (83.5%) claimed that it would be helpful or extremely helpful. Only 5% were neutral and 12% costumers found this not at all helpful or interesting. Seeing this alternative as helpful might come as a result of costumers having trust on the new business models or the pharmacy itself.

Figure 4.4 How helpful is opening an online store

Figure 4.5 below, shows how helpful do customers find the opening of a consulting centre. 85% of respondents would find this as a great idea and optimal solution to their needs. Only 12% of them think it would not be helpful at all or fairly helpful. This solution might have come because of the trust and faith customers have on the pharmacy and personnel there that offers them advices and consults.
4.6 Important Factors

This section is dedicated to what costumers find important when they purchase a product, in terms of quality, price, the service they receive. They were asked how important online presence and online consulting was. These questions tend to provide the researcher with an insight of what is significant for customers so that the pharmacy could according provide them later.

4.6.1 Importance of price

Price is an important factor affecting decision-making in every market and the pharmaceutical market does not differ from the rest. When asked how important the price of the product they purchase was, as seen in figure 4.6 below, 67.5% of respondents stated that it was important or very important for them, meaning that price affects their purchase decision and costumers are more willing to go towards cheaper products. Only 10 % of respondents think that price is not important at all or it is relatively less important.

4.6.2 Importance of online medical consulting

Figure 4.7 below, illustrates the importance of online medical consulting for a costumer. Here answers are more distributed than in other questions, 60% find online consulting as very important or important, 25% are neutral meaning there is a high chance of them to try this service if provided. Only 15% do not like the idea and find it not important or relatively less important.
4.6.3 Importance of online presence

One of the core features of digital transformations is going online, meaning the online presence in different forms like social media, advertisements on different pages or even having a website. Figure 4.8 below, shows that 72.5% of respondents claim that having an online presence is very important or important for them, 17.5% are neutral and only 10% find this not important at all or relatively less important. Online presence makes it easier for costumers to find the pharmacy and increases the activity of the business.

6. Conclusion

Based on the findings of this paper, pharmaceutical companies should adapt their traditional product-only business model by merging products with digital services. The focus on products will, however, not be abandoned and the best seller drugs will always remain an essential part of the strategy. In the long-term, these services should play the role of ‘outcome-enhancers’ and contribute to a new outcome-focused value proposition.

Looking at the results from the survey conducted, the researcher proposes that pharmacy “Daja” should start incorporating the digital technologies of the new era of digital transformation into their business model. Given these findings, the pharmacy should capitalize on the fact that more than 80% of the costumers that answered the survey would found it helpful if the pharmacy “Daja” is to open an online page not only to sell its medicines and galenic products they make, but also to offer online consulting. This is something not seen before in Albanian market and it would drown a lot of attention on the pharmacy translating into more revenues. Even though the question where the costumers were asked if they thought of
online purchasing the medical products was 62.5% negative, it might be correlated with the fact that in Albania the credit card services are not so popular also the sample size was mostly populated by a younger age that not necessary have this kind of facilities. Yet, the costumers found it helpful if especially pharmacy “Daja” were the one opens an online store/consulting centre, meaning that they trust on the products they have and, in the staff, they have recruited. The costumers knew really well the pharmacies “Daja” products as was seen from the survey meaning that they already have a competitive advantage comparing to others. In an evolving market, to stay competitive, companies should develop and arrange services that have the potential to create value and after that turn it into the outcome. The main key to success is rebranding and making sure that the business, in this case the pharmacy, has turned into a trusted partner for the consumer and providing value for all the ones involved. Another suggestion might be to strengthen their online presence and be more active with posting on social media since nowadays that's the only resource of information most of the people use.

Despite the usual business need to offer digital services, digital transformation also presents major opportunities. The drugstore industry should embrace the oncoming wave of digital change and seek tangible means of further developing business models. To be more precise on what kind of digital services the whole industry should incorporate so I could move forward and in what way it can integrate digital into their DNA, further research is necessary.

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