AN ANALYSIS OF THE 'FIRE PHONE' BY AMAZON

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REPORT
DISRUPTIVE BUSINESS PROCESSES

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ABSTRACT

During the assignment Disruptive Business Processes we examined several business processes. We recognized that many of the failures of a business could be analyzed by delving into their process. When there is a careless mistake in the process, this has impact on the success of a product. The size of the impact depends on several factors, such as the stage of the process where the mistake has been made.

Knowing this, we wanted to analyze a big failure of a successful company ourselves. We chose the 'Fire Phone' of the company Amazon. This product has failed in different areas and we wanted to research how this failure could have been caused. We will analyze the problem using an Ishakawa-diagram and make an analysis per stage. To further analyze the information flows we have made use of the MIR method.

We can conclude that the Fire Phone has failed because of lacks in different areas. Both in different stages as in information flows there are mistakes made which could possibly have been prevented.

CONTENT

INTRODUCTION

"Only those who dare to fail greatly can ever achieve greatly."

- Robert F. Kennedy

The aim of this report is to analyse the huge failure of the Fire Phone, developed by Amazon. It provides insight in the process of this product and the reasons why it failed.

The report starts with some background information, followed by a problem analysis displayed by two different methods. Subsequently, we analyze information flows using MIR and draw a conclusion.

img 1.

BACKGROUND INFORMATION

Amazon

The idea to 'set up a catalogue retailing business that would exploit the infant internet'[1] encouraged Jeff Bezos to set up the company Amazon in 1994. Initially existing as an online bookshop, Amazon expanded its online market to every product that could be sold including videos and CDS. Amazon became 'one of the few internet brands recognized all over the world'[2] and is now the biggest internet retailer of the USA. Amazon turned into a profitable company with over '74.5 billion' of total revenues in 2013[4]. Becoming one of the largest online retailers in America, Amazon competed on marketplace with Apple, Google, Walmart and Alibaba included. One of their ways to compete was to 'own such devices'[5] that could active mobile shopping, as 'the shift from desktop to mobile shopping is "a second wind to the whole of e-commerce"'[6].

They were launching their own developed consumer electronics since 2007. They started with the Amazon Kindle, an e-reader that has become quite successful. After that they developed the Kindle Fire, a tablet 'on which you could do anything'[7]. Both of them were a success and many experts predicted that there would come a smartphone. They eventually entered the smartphone industry in July 2014 with the Amazon Fire Phone.

Instead of focusing on the competition, they kept an user-centered approach in which products were reviewed and recommended to enhance the online the user-experience. Building a 'sense of community among users'[3] Amazon was able to stimulate people to buy more stuff, which was facilitated by the simplified 'one-click' technology.That's also why the launch of the Fire devices, included a year's free Prime membership, to "encourage people to become accustomed to Amazon's streaming – and it's free deliveries'[8]. However, 'outside the realm of e-books, Amazon has yet to make a great impression in the world of devices' as 'tablets from Apple and Samsung easily [outsold] the Kindle Fire'.

img 1.

Fire Phone

On June the 18th 2014 Amazon's first Fire Phone was released in the US. This device would introduce Amazon to the smartphone market with rivals Apple and Samsung included. 'Rumors of a smartphone by Amazon.com, Inc. did bring a lot of doubts with it regarding its success as the industry [was] flowed with numerous players'[9]. Nevertheless, 'the fact that Google Inc. became the world leader in the search engines even though it entered the space quite late and that Apple acquired a substantial share of the smartphone market in the presence of other major rivals, proves that competition is no deterrent'[10].

Amazon's insistence to obtain a share on the smartphone market was realized by releasing the Fire Phone. With the ambition to compete on the current smartphone market and challenging the status quo new features were developed, since "Amazon' wasn't 'exactly the new kid on the tech block, though. The company's web presence has been going strong for 20 year, and it sold e-readers and tablets'[11]. 'The tablet market had already been set alight by the Kindle Fire, which [gave] Amazon.com, Inc. an excellent grounding in producing consumer electronics'[12].

Its final 'launch ended years of speculation on when or even if the e-commerce group would enter a hugely competitive and increasingly saturated market'[13]. At the date of release was in June 2014, '2014 was always going to be a big year for the smartphone market, with Samsung Electronics Co. Ltd. having ambitious plans for the Galaxy range', namely the Samsung Galaxy F. Also, 'Apple Inc. [prepared] an IPhone 6 for release which [was] set to blow the sock off consumers all over the world'[14]. Numerous other companies including Nokia released smartphones.

Its release was not a surprise as it was expected due to numerous speculations. 'Subsidized through the carrier and Amazon Prime, the Fire Phone [would] cost $199 for a 32GB model from AT&T. That's the same price as many other high-end smartphones, including Apple's IPhone 5s'[15]. Also, 'the hardware was competent with the likes of Apple IPhone 5s, Samsung Galaxy S5, or Nokia Lumia Icon. The screen size and the camera quality [were], also, of good standards matching those of the rivals'[16]. To rival the Fire phone '[attempted] to imbue it with unique features and functionality'[17]. Amazon innovation was stated by 'Mr. Bezos' to design 'a better phone for our most engaged customers', and said the company had been working for years on the technology underlying the Firefly visual search engine and 3D display'[18].
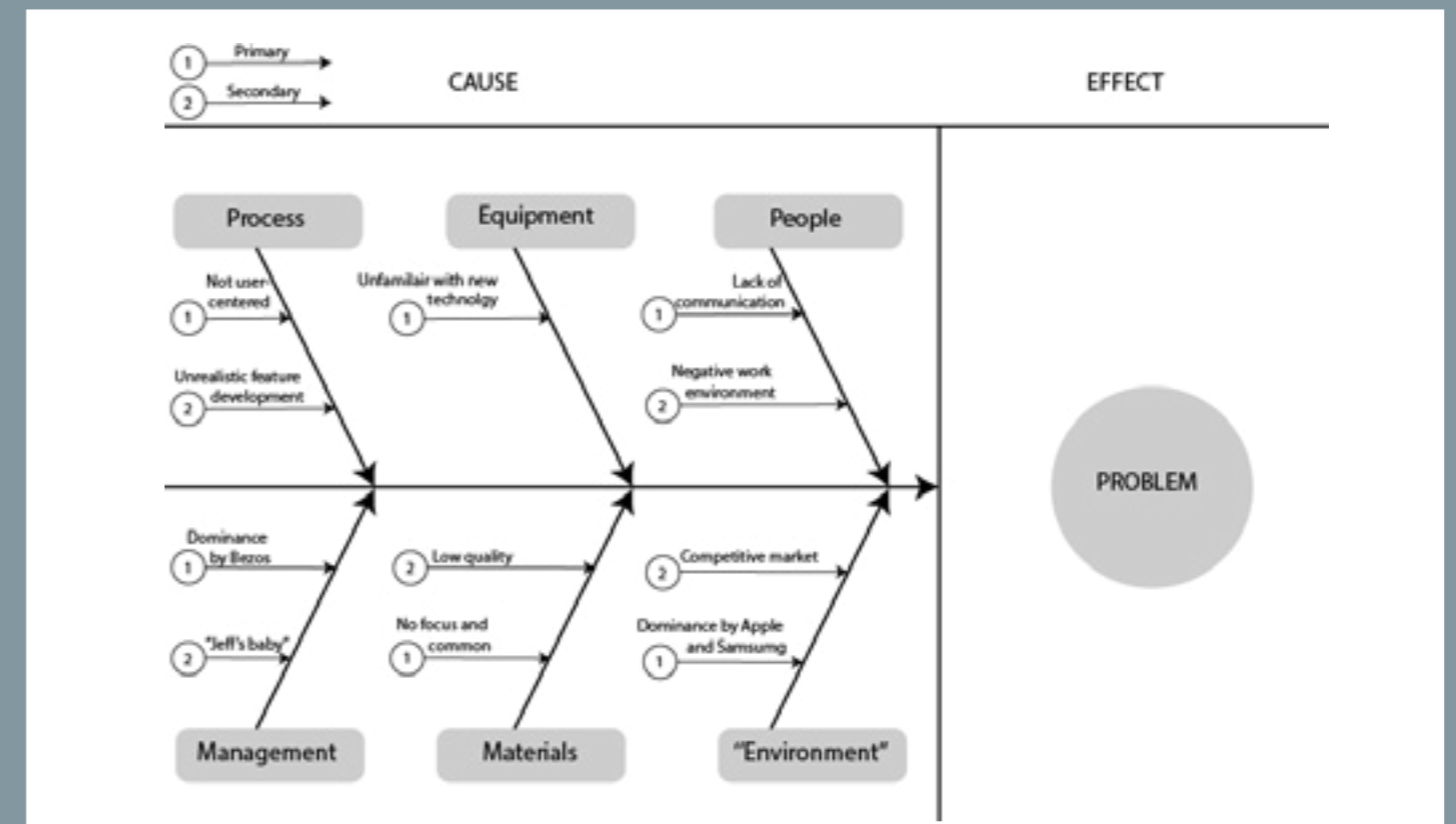
img 2.

PROBLEM ANALYSIS

Ishakawa

The Ishikawa-diagram, also known as the fishbone-diagram, is a causal diagram. For the Fire Phone we created this diagram to show the causes of a specific event, namely the failure of the product on the phone market.

People

The first aspect of this diagram to take into account is the field of people in Amazon's design process. This aspect focuses on the communication and knowledge obtained by the one's involved in the process. Interviewing former workers for Bezos on the Fire Phone, a lack of communication was present. Since Bezos defended the Fire Phone as a 'bold bet', the Tyto team started to experiment without complaints. Nevertheless, designers of the Tyto project privately questioned his taste.

'Whenever anyone asked why we were doing' it was 'because Jeff wants it'. No one thought that the feature justified the cost to the project. No one. Absolutely no one.' [19]. No communication between workers of the project allowed doubts not to be discussed and improved. Also, the environment in which the phone was designed was negatively affected. In the article was stated that all designers grew frustrated and were not dedicated. 'In essence, we were not building the phone for the customer- we were building for Jeff'.

Management

One of the causes that resulted in the problem of failure, was Bezos management. In the interviews was stated that Bezos managed every critical decisions, resulting that doubts were only privately questioned and none of Bezos's ideas were countered. Bezos dominated the process of developing the phone, from concept to sales. In the interviews was stated that 'because the Fire Phone, as with most big innovations inside Amazon, came straight from Bezos's brain. As one founding team leader of the project puts it, 'This was Jeff's baby'. This not only resulted in an unpleasant environment, but did not allow discussions to improve the concept. For example instead of deciding to include a 8-megapixel camera, Bezos personally chose to include a 13-megapixel camera instead. He was the product manager, who was not open-minded, and his extent of managing the product got out of control.

Environment

The environment did not affect the design process of the Fire Phone, since for example the weather did not contribute to causing the problem. In fact, the environment was not and did not had to be taken into account for the design process.
Another definition of the 'environment' could cover the competitive smartphone market, which was dominated by Samsung and Apple. Since Amazon did not have any reputation of selling phones, this could be problematic.

Process

The process of developing the Fire Phone did encounter several problems that caused it's failure. Almost every product created by Amazon began from ideas scratched on a piece of paper. To help Bezos employers were required to 'help them refine their ideas and distil [over] their goals with the customer in mind' [19]. During the process of designing ambitious, innovative features, which seemed 'unrealistic even then', Bezos was determined to include them. Also, all of Amazon's products were guided 'by starting with the needs and desires of the customer and work backward' [19]. Instead, for the Fire Phone this was not accomplished and the needs and desires of the customer were not taken into account. By production of the phone employers questioned the value for the customer and felt like only Jeff's needs and demands were covered. Bezos stated that customers engaged to the company would be willing and enthusiastic to buy one.

Material

Another aspect to take into account during the design process is the material, their availability and quality. As there were enough materials available, the materials were not produced with quality. Utilizing the product, the battery life would lack and not be sufficient to power the phone for common usage. Also, the materials were ordinary in relation to materials used by competing companies. Furthermore, as the features included were innovative new technology needed to be created. For example for the 3-D effects of the engine, several teams were challenged. 'After a first set of leaders assigned to the project failed to deliver, their replacements went on a hiring spree. One team even set up a room that they essentially turned into a costume store, filling it with wigs, sunglasses, fake moustaches, and earrings that they donned for the cameras in order to improve facial recognition. "I want this feature," Bezos said, telling the team he didn't care how long it took or how much it cost'[19]. This shows that materials used were in fact not researched to find out their pros and cons. Instead, Bezos focused on creating a new system rather than taking into account which materials would be best to maximise functionality and comfort for users.

Equipment

The last aspect to be taken into account for the design process is the aspect equipment. This aspect focuses on the availability of the right apparatus, software and tools and how this could potentially cause the failure of the Fire Phone. The Tyto project was designed in the Lab126, 'Amazon's R&D unit with offices in Sunnyvale, California and Cupertino' [19]. Also, vice presidents Gregg Zehr and Mark Randall were part of Bezos's team to support them with knowledge and experience, since they were unfamiliar with this new technology. Further, 'the group's hardware and design expertise have become more sophisticated since it released the first Kindle e-reader in 2007' [19]. This verifies that they had the equipment and knowledge to successfully integrate the technology in the Fire Phone and design it with quality.

Phase-focused

Concept phase

In 2010 Amazon started with making a concept for their own smartphone. As the users moved to mobile platforms owned by giants like Google and Apple, Amazon was under risk. Selling ebooks on the Kindle app on an iPhone was difficult, because Apple gets 30% of the revenue of in-app purchases on their platform. By creating a smartphone platform by themselves, the Fire OS, Amazon could get more control and higher their revenues.

Management and concept teams created two different concepts for an Amazon phone. The first was a low-cost phone that would be sold at a loss or a small profit. By doing this people would buy the smartphone and use it to buy content like books, music and movies at Amazon. In the long term the profits of this purchases would surpass the initial loss. This model was earlier used for the Kindle Fire tablet and the Kindle e-readers and proved to be successful. After some time further development of this concept was cancelled.

The second concept was a more expensive smartphone that would compete with the iPhone and the Galaxy S series. The idea was that the phone should not only be a means to tie customers into the Amazon ecosystem, but also improve the image of Amazon. The company is mostly known for good products for a affordable price. The management wanted to change this to an image of a cool and innovative brand that people use to identify themselves with. Apple was their example of a company that succeeded in this.

The problem was to combine both improving the brand image of Amazon and the function of promoting the Amazon webshop in one device. The envisioned price was too high to interest customers in buying a smartphone that essentially was a big advertisement for all Amazon services. And these services were not good and unique enough to improve the coolness of Amazon as a brand. Another important problem was the competition. The market for cheap smartphones was relatively easy to enter. The competition for expensive premium platforms was extreme however. Manufacturers like Samsung and Apple had build a strong platform over the years and a loyal customer base that would not switch easily to another brand.

Design and Management (Design Phase)

What went wrong according to the designers/engineers? The Fire Phone and it's features fitted by the company: wild experimentation and risk-taking. Amazon had a mission to create anything with real style.

Amazon is well known for their user-centered approach: they look at the customer and at their needs and desires and work backwards from that. That was basically the thing that went wrong in the design process of the Fire Phone. The CEO of Amazon: Jeff Bezos became the main user of the product. Bezos made a list with 'whiz-bang' features that he gave his team to work out. His designers and engineers started to work out a few promising technologies like the Firefly app and a hands-free interaction to allow users to navigate the interface through mid-air gestures. [19] Every design decision needed to go through Bezos and therefore was Bezos closely involved in developing the Fire Phone. Due to his big involvement in the process the phone wasn't build for the customer, but for Bezos himself. The feature where Bezos pushed the hardest, is eventually the biggest fail according to the customer: the 3D effects. Because these effects needed 4 cameras the battery life went way shorter and besides that wasn't there an added value for the user. Some engineers in the project already questioned the added value for the customer. Because of the big successes Bezos had previously with big gambles, many people working on the project just trusted his ideas.

Production

The production stage of the phone went quite well. Just like the Kindle, the Fire phone is produced by the company Foxconn [20]. This big Taiwanese company has a great reputation in the tech industry and produces successful products like the Apple iPhones.

The Fire phone was good for the reputation of Foxconn. They produced about 4 million phones with high quality, and did absolutely not drop few stitches.

So, the production stage of the phone did not contribute to the big failure.

Sales and launch

The original price of the Fire Phone was of the same level as competitors as the Apple iPhone 5 and the Samsung Galaxy S5: $199,- with a 2 year contract exclusively available at AT&T and $600,- for an unlocked phone.

After the launch the reviews by experts were disappointing: "as a phone, the Fire is not that different" [21], " technology needs to solve a problem. And while the Fire Phone certainly solves a problem for Amazon, I don't see how it solves one for you." [22] Even the customer reviews on the product page of the Fire phone at Amazon. com were negative. "The low point came when I was showing off my new phone at work to extol the virtues of my new Amazon Fire. Flick fail. Swipe fail. Firefly fail." [23] The verdict according to these reviews was that the unique features of the Fire Phone were not useful in real life usage. Another problem was that these features did not work flawlessly and the user experience was not so polished as other smartphones. Despite these disadvantages, the Fire Phone was priced at the same level as premium products from competitors making it an uninteresting choice for customers.

Instead of millions of sold smartphones, Amazon shipped only 35.000 phones. [24] To limit the write-off on unsold products to some extent, sales decided to lower the price extremely: $0,99 with a subscription and $199,- unlocked.

In conclusion, we found out that it is part of Amazon's strategy to take risks. The concept phase heavily contributed to the failure of the Fire Phone, because the concept that was chosen was actually a phone that wasn't interesting for the customers. There was a lack of knowledge about the market for premium smartphones, because Amazon had more experience in creating affordable products offering a relatively great value for little money.

Also, design had problems with turning this bad concept in a actual product, but didn't stop the development. Another problem was the extreme micromanagement by CEO Jef Bezos, resulting in a phone made for him instead of for customers. The software of the phone was another problem. It just didn't work as good as the software of the competitors. The phase of producing the phone had not any major problems. The quality of the hardware was good, the delivery was in time and the capacity was sufficient to produce millions of smartphones as Amazon had planned. It was only after the sales were a lot lower than expected that changes were made to the process: the price of the phone was lowered, to limit the loss of unsold stock. This sequence of failures makes us question if Amazon is doing too much things at one. Maybe they should focus more on their strong points as a ecommerce giant and use more of that experience for new products.

MIR

In the process of developing the Fire Phone we see a number of information flows with problematic factors. We use the Maturity Index on Reliability (MIR) [25] to analyze these. This theory focuses on the analysis of information flows within a business process to improve the quality of the process.
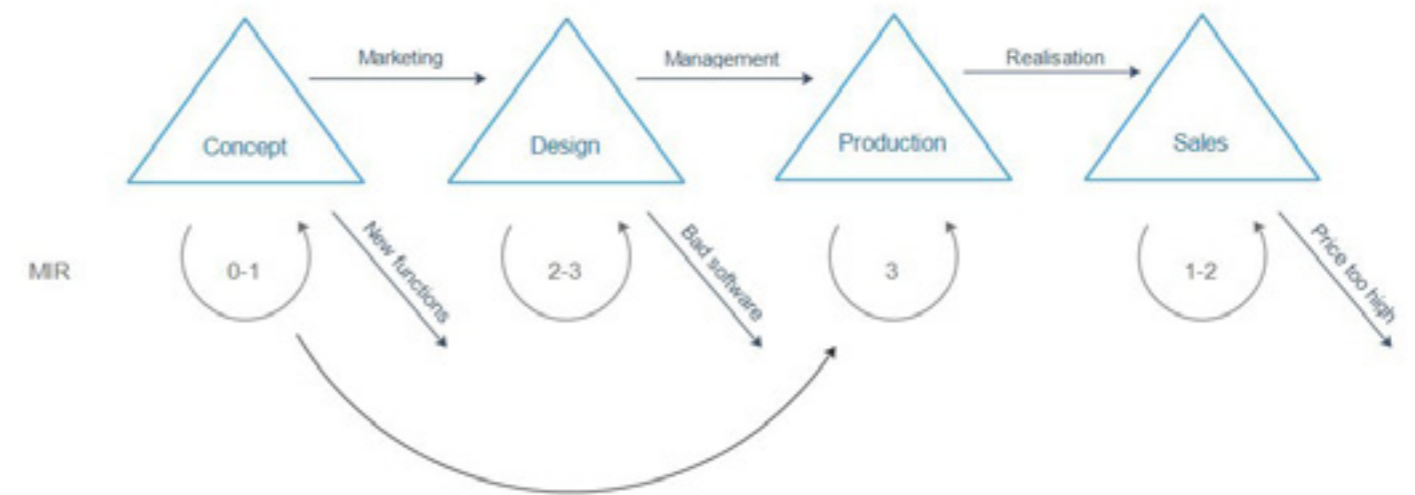
Concept/Marketing to design

An important information flow was between de marketing department and the design department.

The marketing department had two concepts for the Amazon smartphone: a premium model we know now as the Fire Phone, a relatively expensive phone with unique features to compete the flagship phones of the competition. The other concept was the Prime phone, a cheap smartphone that would be sold at a loss to tie consumers into the Amazon ecosystem. The profits out of this would eventually compensate the loss of selling the phone so cheaply. In the end the marketing and management of Amazon chose to only develop the Fire Phone, while a number of employees at design did not agree with this choice. This feedback was known to the management and marketing, but no corrective action took place.

Another aspect marketing overlooked was that the competition in the market for premium smartphones is fierce. Over the years both Apple and Google (Android OS that is used e.g. by Samsung) had turned their smartphones into platforms with an ecosystem of apps. [26] Amazon had to start building a platform of the same quality from scratch. This is a different situation than the competition for Amazon's e-reader Kindle. The webcommerce company was one of the pioneers in offering a e-reading device with a platform where people could buy ebooks right on the Kindle itself. Their tablet, the Kindle Fire, combined the excellent e-book platform with a cheap pricing and a relatively good user experience.

In chapter 1 we saw a number of actions of Amazon that make us think that though the company made some successful products, there was little knowledge in creating a premium device that competed on quality rather than affordability.

By connecting this information to the characteristics of the different MIR-levels, we conclude that the information flows within marketing and between marketing and design were of a low MIR-level, somewhere in between 0 and 1. Marketing entered a new market with their concept, but they had not sufficient knowledge about this. The output of their concept in the process of designing the Fire Phone was mostly unknown to marketing, so nothing was done with the criticism of different employees. The first available information that showed the results of the work at marketing were the disappointing number of sold phones at the end of the business process. That was too late to do something about the causes of this problem.

Design and management

The design department went on with the ideas from the concept and marketing team. A lot of designers and engineers worked on the design of the Fire Phone. Lab126 is the Research and Design group that developed the phone. They worked closely with the CEO Jeff Bezos. As explained before: he was way too involved in the process. That led to features of the phone that users didn't need.

In interviews with the Business Insider engineers and designers of the phone explained what the design process looked like and what eventually went wrong. Those designers and engineers had to present everything to the CEO. This led to a product that wasn't designed for the user, but for the CEO himself. The designers couldn't convince Bezos to make other features. They were following the 'leader' in the process. Some team members didn't saw the added value of for example the 3D features. The head of engineering who worked hard on the 3D perspective said: "We poured surreal amounts of money into it, yet we all thought it had no value for the customer, which was the biggest irony. Whenever anyone asked why we were doing this, the answer was: Because Jeff want it." He stated that no one in the design team thought the feature was worth its money. He also said that he and his designers trusted Jeff Bezos: he had success in the past so he probably would be right. [19]

These are aspects of a MIR 3 level process. The designers knew where the problem was: they didn't saw the added value of the 3D features. Yet they trusted Bezos that much that it would be alright. Although they saw the problem they didn't prevent it. That are clues for a MIR 3 level.

Sales and service

Focusing on designing an expensive premium phone rather than producing a low-cost phone (similar to the production of the low-cost Fire Kindle), Amazon entered an unknown market. Since Amazon had no reputation in producing mobile phones, they had not prepared themselves for entering a very competitive market dominated by giants Apple and Samsung. This led to a failure in the sales, vividly displaying several failures in the design process like an unsuitable concept for the user with unwelcome features. Also, showing the lack of information loops and milestones to validate the satisfaction of employees in relation to introducing these new features and improving the concept.

One of the aspects that was not performed correctly was researching the market Amazon was designing for. Amazon's focus was and always had been on designing low-cost products. By designing the Fire Phone, Amazon challenged itself to compete with premium flagship mobile phones that were very familiar and welcome by customers. Nevertheless, sales underestimated current launches of other competitive mobile phones. Since the IPhone 5 and the Galaxy S5 were launched in the same period of time, Amazon did not take into account the effect of pricing their phones at the same level as premium products. Amazon did not have a reputation on selling mobile phones, while Apple and Samsung dominated the mobile phone market. Customers were therefore more familiar and comfortable buying an Apple or Samsung device rather than an Amazon device. The price, $199 with a two-year-contract,was too high to interest customers to buy the smartphone, which was in fact an big advertisement for all Amazon's services.

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In chapter 1 we researched Amazon's design process to find out that the company was in fact not even enthusiastic for their own product, except for Jeff Bezos. This is also shown in the limited sales, since employees themselves were not convinced by their own designed technology, customers weren't either. There was no clear focus or aim in their business plan that would provide customers a thoroughly motivation to buy an Amazon device rather than an Apple or Samsung. Knowing that customers would question the phone's additional value to other phones, sales were not able to provide an approving reason to buy the phone. Since they knew the problem of their limited sales, they did not do anything to alter or prevent it.

Another important information flow was between the service and the rest of the business process (including development, conceptualization and sales). The Fire Phone was designed to contain unique features like 3D-interface and the Firefly, but these features did not work flawlessly. Instead, interviews with users stated crashing of mobile phones and a lack of functionality of new introduced applications. The feedback on the problematic features were known by Amazon's service stage, but were in fact not improved by taking direct action.

By structuring the information flows in the different MIR-levels, we conclude that the information flow within sales and between sales and service were of a low MIR-level. At sales the cause of the problem was (well-) known (e.g. the phone was too expensive, did not functional properly and did not have a unique selling point). To solve this problem, sales reduced the price, but did not focus on other aspects to do what about the problem. Since reducing the price of the phone did not stimulate the sales, Amazon was in fact not able to solve the problem, resulting in a MIR-level of 1-2. This is because of the fact that Amazon entered an (yet) unknown market area with their concept, but they lacked knowledge (about pricing, their competition and how to adapt to the feedback given by customers). For sales the output was unknown, since they did not predict this low amount of selling their phones and nothing was done to improve it. They rather focused on increasing their sales by reducing the price of the phone, but this did not solve the problems customers encountered and did not help to rebuild their reputation. The first available information were the disappointing numbers of sold phones. Also, the number of complaints received vividly showed their failure. Nevertheless, at the end of the design process at sales nothing could have been done to prevent the catastrophe of the this failure.

CONCLUSION

The Amazon Fire Phone became a flop because it didn't match the expectations and needs of the users both in the choice of features and the user experience. This was fatal because of the high price, which made the Fire Phone competition for phones like the iPhone and Galaxy S5. In comparison to these phones, the Fire Phone was an uninteresting choice for customers.

The first steps of the business process of the Fire Phone were the cause for most of the problems concerning this product. The business model was not clear and the management had a negative role in translating the concept into an actual product. Within the process of creating the concept no feedback was measured and the communication to the design department had a questionable quality. In later phases of the process, for example production, other employees had to cover up the failures made at the start of the process. Unfortunately this was not sufficient to avoid a failure and a loss of 170 million dollars.

ADVICE

In December 2014 Amazon CEO Jef Bezos revealed that the company is working on the Fire Phone 2 [27]. After doing the research for this report, we would give Amazon a few advices to make sure the successor of their phone won't be a flop.

First of all don't let the CEO micromanage the project. Certain decisions of features for the Fire Phone were based on the CEO as the only user of the product. We recommend more usertesting to see if the features make sense in daily life and work as expected.
We advise to trust more on the opinion of the designers as well. The managing style of Bezos caused some great success in the past, for example the Kindle e-readers. But the problem was that while creating the Fire Phone past success mistakenly was seen as guaranteed success in the future.

Our third recommendation is that Amazon should make a more affordable version of their phone. The competition on the market of low priced smartphone is not as strong as for premium smartphones. The trend is that people are expecting more from their products. The expectations for expensive smartphones are extremely difficult to fulfill. In the case of affordable smartphones it is still possible to meet the wants of the customers as a new player in the market. The success of budget smartphone manufacturers as Xiaomi show that there is a chance for new brands in this market. Another important aspect of affordability is that it better connects with Amazon's brand image. The company is known for their low priced products that offer a high value and a good connection with the services of the webshop.

REFLECTIONS

Pleun Alkemade

Before I took part in this assignment, I barely knew what the competency Disruptive Business Processes involved. I knew that it had to do with the business part of a design process, though I thought it was mostly about the marketing of a product.

However, quickly I realized that this was not necessarily the case. I learned that the business process of a product consists of different stages which are complexly and closely connected to each other. There are much more stakeholders involved than I thought beforehand when bringing a product to the market. Communication between stakeholders in different stages of a process is crucial, we have seen that otherwise small mistakes are easily made which often develop into big problems with sometimes even fatal effects.

Not only communication is important. I learned that in every stage feedback is of crucial importance as well. After the introduction of the MIR stages, I gained a better understanding of this feedback. It became clear that recognition of mistakes or makeable mistakes and being able to reflect on this and finally feed it back is necessary. This way you can control and suppress or even prevent failures.

What I have learned explicitly from the assignment about the product failure is the importance of finding a refined balance of what you and your user want Amazon has always had a great name in user-based designing, while the Fire Phone failed mostly on the fact that it did not meet the desires of the user at all. To great extent, this could have been prevented when the CEO did not dominate the process, so when a better balance was found.

Within my own project this semester, I have experienced many errors which could have been prevented with the knowledge I gained now. There is much room for improvements in communication for example, and in 'failing early'. Although this insight came a bit late in our process, I am glad that I can use this knowledge for my upcoming projects.

Joca van der Horst

My idea of what the competence designing business processen is about was rather vague at the start of this course. By following this assignment I wanted to get a better view of what DBP actually is and means for me as a designer.

Up until now I had DBP mostly related with entrepreneurship and money. During the lectures I got to know some other important aspects that broaden my view on this competence. The examples about business processes that succeed and fail taught me about that DBP is also about working together, trusting each other and learning from past experiences.

Using failed products as examples was a refreshing way to show the theory. I really liked the examples MR. Brombacher gave from his past experience at Philips. The story about the Video 2000 failure made the theory tangible for example. I won't forget that partnerships with organisations outside my own sector could be crucial to avoid a failure of a product.

Another part of this course that I appreciated was that I got more insight in several elements that are part of the educational model at the department of ID. Reflecting is not a practice that I only can use for my studies. In businesses it can be an essential instrument to improve a process. It is for example part of the maturity index on reliability (MIR).

MIR is about analyzing information flows in a process. The highest MIR level involves reflecting besides measurement of feedback of the output, knowing who the actors are and solving the problem. Reflecting makes the difference between a process that stays on the same quality level and a process that learns and continuously improves itself. Another interesting aspect of MIR is that I could easily relate it to my past projects. It helps in better understanding my design process. For example, in my B1.2 project for we integrated haptic feedback. Unfortunately the feature did not work after some time. We found out that the vibration motor was broken. Another team member replaced the component. This motor broke as well. This is a typical example of an MIR level 2 information where the feedback of the output is measured and the actors involved in the problem are known. There is however no real way to solving the problem and the process is not adapted towards one with for example another type of vibration motor that wouldn't break.I will definitely use this to analyze my future (group) projects, because it is a good instrument to learn from.

The assignment to analyze a product flop was interesting and challenging. We chose the Amazon Fire Phone as a subject, because it was a recent flop and it is a product familiar to the type of products we make at the department of ID. The challenging aspect was to apply the theory to a real life problem where the business process was not so clear at first sight.
It was fun to look for information and discuss with each if the marketing department of Amazon was a key player in the failure of the business process, or not. In the end we saw that the problem was a bad concept, a flawed management style and a lack of usertesting.

It was a pity that the time for this assignment was relatively short because of several cancelled lectures. That made it a little difficult to get really into the subject. This is however a minor issue, because my overall opinion on this course is positive. I got a broader view on Designing Business Process as a competence, enjoyed the lectures and I have now a better view on how I can integrate DBP in my development as a designer.

To make sure I won't forget the lessons of this course and make the best use of it I will arrange time to read the book with more in depth information about the subjects treated in this course. Using the knowledge and skills I learned in this course and by reading the book I will do an analysis of the design process of the group project in the basic course Engineering Design next quartile.

Marit Proper

I chose this assignment because I didn't know much about business and about business processes. After being in a design process myself I was curious about what happens in a design process within a big company and how everything connects within big companies.

After the first course I realised that I am really interested in the processes within a company. I liked the complexity which I did not expect in advance. Before the assignment I didn't realise how complex the process of bringing a product to the market really is. I quickly realised the importance of communication: without good communication in a company things can go very wrong.

I started to see the design process as a puzzle, every department within the process is a puzzle piece. With good communication the puzzle pieces fit together, but when everyone just minds their own tasks the pieces don't fit anymore. This could lead to product failure, which will cost the company a lot of money.

After learning about the MIR levels and about how some processes where going in big companies, I also saw those in my own project. Within our project we were all working on our own tasks, we didn't communicate much in between and after we completed them we noticed that we didn't do exactly what others expected. Unfortunately I realised this a bit late in the process, and I couldn't do much about it anymore besides noticing it. I will definitely look at this better next project so I won't make the same mistake again.

From the failed product we investigated I learned that adapting your product to the user is very important. You see it at the Fire Phone failure. Although Amazon is well known for their user centred approach they definitely failed with the Fire Phone. They listened way too much at the CEO, and therefore missed the user's needs.

Within the assignment I learned what business processes are and how they are built up, I learned the relevance of them within companies. To prevent mistakes it is important to analyse these processes. The importance from them to an industrial designer is that the designer should see the mistakes and help to prevent them.

Verena Vredeveld

What do I want to learn and why
At the start of the second semester I wrote in my Personal Development Plan (PDP) my goal to acquire an entrepreneurial attitude (to maybe be able to set up and manage my own business in the future). To develop this attitude I subscribed for the assignment 'Disruptive Business Processes'. This would allow me to get more insight in how business is involved in the design process and what to focus on to create a good business plan. During my B1.1. project we did not focus on designing a business plan or take into account financial costs. For my B1.2. we started to search for clients, but thought of this as unrealistic as our project group was not experienced with working for a client (yet). Nevertheless, I want to be able to understand how business is integrated in the design process and acquire market insight to find out how to successfully introduce a product to the market.

I think attending this assignment will give me insight in creating a good business plan and broaden my perspective on the competency Designing Business Processes (DBP). Also, my goal is to be able to apply this acquired knowledge to help me to analyse and implement 'tools' (e.g. how to validate a product by user testing) in my own design process.

What did I learn
The approach of the assignment to make it a workshop (with examples of Philips included and open discussions with other students) rather than learning from books, was very interesting and made the theory more understandable and less vague. However, due to the limited time I felt like I was unable to obtain all the information and put it to practice to research our chosen product the 'Fire Phone'. Nevertheless, writing the report allowed me to even better understand the usage of MIR levels, information loops and defining failures in the design process.

The first insight I obtained was that business entailed more than money. Instead, important aspects like communication, trust, the use of milestones and feedback are the foundation to successfully introduce a product to the market and regulate the design process properly. By researching Amazon's disruptive product the 'Fire Phone' I learned that absence of one or more of these aspects will result in an ineffective business plan. In the case of Amazon, their design process did not only deficit communication between different departments, but was disrupted by the CEO's management and absence of user testing. By researching the industrial as well as the user perspective, I was able to acquire a broader perspective on the necessities of a good business plan. For Amazon this would include user testing to find appealing features for the phone and research on materials to make it a rather low-cost phone to be able to compete on the smartphone market.

I expected the assignment to provide me knowledge on how to design a good business plan by providing information, tools and methods. Instead, the assignment required us to analyse the wrongs in a large company's business model to ,then, think of ways to improve their business model. Learning more about Amazon's design process I realized its similarities with any design process, since all design processes start with conceptualizing an idea and bring it to the market by sales. This allowed me to not only learn about the design process of Amazon, but also gave me a lot of new insight in my own design process.

The lectures stressed the importance of communication by using information loops and feedback systems at the end of every stage in the process. Researching Amazon's information loops I realized that without communicating between the different departments, one is never able to work towards one end-product. Communication is ,therefore, the key to let all members of a group or project think along the same lines. During my B1.2. project I encountered an absence of communication at the Demo Days. During the pitch I found out the many different ideas we had in mind for our concept and how we had to communicate and define to be able to write a pitch everyone approved of. Since we were all working on the same project, I learned that many different perspectives needed to be regulated by the use of information flows, to be able to work efficiently together on one and the same concept.

Also, I learned about the essence of writing reflections at the Industrial Design department. Since I was a bit skeptical about writing reflections, as I did not seem to understand their essence, I learned how reflecting helps one to 'fail early' and prevent problems in your design process. Researching the disruptive product the 'Fire Phone' I was shown the essence to give feedback and reflect on this to allow improving one's concept and prevent a failure. Since Amazon's CEO did not allow any reflection on his design, there was no feedback given and improvements of 'his' concept were avoided. I now understand for my own process the importance to communicate clearly by defining goals for every stage in the design process and afterwards reflect on this to prevent failing.

The lectures vividly showed the stages of the design processes and illustrated wrongs in each of the stages involved. The theory of MIR focuses on how a business process reacts on unexpected events by analyzing the information loops. A MIR level of zero means that there is no information available and , thus, no evidence of the process output. The higher the MIR level, the more information is available due to reflecting on the design process. A MIR level of four requires all information available to define the origin of the problem, what causes it, what to do about it and how to prevent a similar problem. I realized that one's ability to reflect is essential in understanding wrongs and anticipating them to improve.

The theory of the MIR could be applied to my B1.2. project in which I encountered difficulties between the communication in the group. Since one group member worked on programming the Kinect and did not forewarn us on possible wrongs in the system, I was not able to anticipate and prevent mistakes. In fact this would be a MIR 1, since the origin of the problem was unknown.

The future
During the assignment I learned that communication and feedback are essentials in the business aspect of a design process. To properly implement them, one is able to define an origin of an encountered problem, understand what causes it, know what to do about it and prevent future similar problems. The theory of MIR vividly displays the origin of the problems at what stages one needs to improve the information in the design process. I will definitely use this theory to analyse problems in future projects to learn from my mistakes and improve myself and my design process.

The research on a 'disruptive' product made me realized the many wrongs potentially encountered in a design process. Taking into account both the industrial and customer perspective I learned to create a good business plan, because without clearly communicating and ,in fact, centralizing the user in your design process, your product will not be able to demand to the needs and desires of a customer. Communication is required to be able to reflect after every stage. I will use the tools, including setting milestones, reflect after every stage and the theory of ' failing early' to better my design process.

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