

INTEGRATIVE PAPER

'OCULUS RIFT'

Strategic Management

Group 04 Team 2

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Introduction

Oculus is a technology company revolutionizing the way people experience video games (Crunch Base, 2016). The company's first product is the Oculus Rift virtual reality headset (Crunch Base, 2016). The company was founded by Palmer Luckey and veterans of RedOctane, and is acquired by Facebook for \$2 billion on March 25, 2014 (Crunch Base, 2016). Oculus' mission according to Zuckerberg is "to give people the power to experience anything" (Charara, 2015). Their vision is to make the consumer virtual, augmented, and mixed reality experiences that ship in five to ten years great (Oculus, 2016).

Analysis of environment (industry)

Potential entrants are going to have a big influence on Oculus since the VR market is so new and a dominant design hasn't been established yet.

The entry barriers are relatively high. The Rift is a complex product to make and to create applications you need a lot of experience and a strong financial position. For big companies who already are in the technology industry, e.g. smartphone makers, the entry barriers are relatively low because they already have a lot of the required knowledge in their company, for example hardware and software creation. LG, Huawei, Asus, Acer, Samsung, Microsoft, HTC, Sony, Google, Apple: all big technology companies who already have/will enter the VR/AR market (Dave Smith, 2016). Not all of these companies are building a substitute for Oculus: primarily they focus on the mid to low end market. Oculus, HTC and Sony primarily focus on the high-end market with expensive components and additional hardware to run the VR headset.

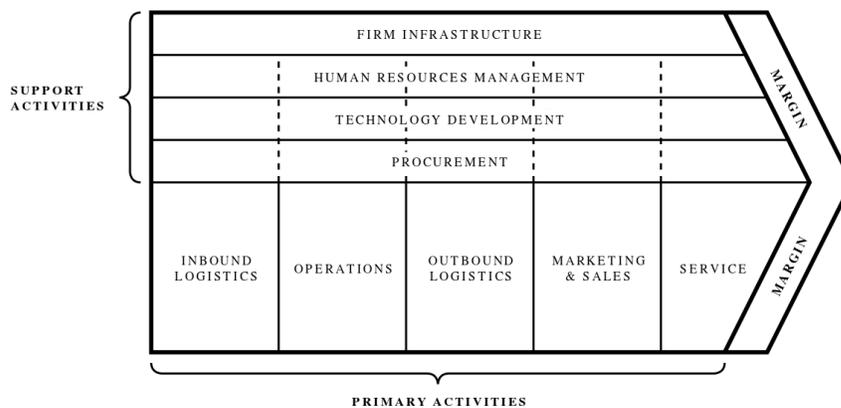
The Rift is a first generation product. Only early adopters of VR are currently interested in the Rift, as well as in the HTC Vive and Playstation VR. To switch to these headsets is quite difficult, since they all have different ecosystems with different applications. Network externalities will also raise the switching costs once multiplayer applications will get more important in VR.

The supplier has also a lot of power: the parts of the Rift are very specific and not made for multiple companies, for example the custom made head tracking sensor (David Nield, 2016).

Firm-level (Oculus)

Generic strategies, the Value Chain of Porter and cost analysis

When we look at the generic strategies of Porter for Oculus, the market scope is at the moment narrow. Strategy Analytics notes that adoption would likely be slow at first thanks to high costs and low consumer awareness, but the firm expects VR headsets to generate up to \$895 million in revenue this year (Meola, 2016). The product characteristic is differentiated, because virtual reality is a relatively new technology. Virtual reality today is a vast, highly interdisciplinary research space that has only begun to be explored (Oculus, 2016). So Oculus will be best fitted in the differentiation focus strategy to start with. In about a couple of years, Oculus might better fit in the differentiation strategy, which consists of a broader market scope, but still a differentiated product. The prospects are that the market of virtual reality will grow in the coming years. It is estimated that shipments of VR headsets will grow at a swift 99% compound annual growth rate between 2015 and 2020 (Meola, 2016).



To defend a niche, there are sources of competitive advantage needed (McGee et al., 2010). For Oculus, operations are sophisticated and the most extensive feature of the value chain of Oculus. It generates the most added value to the product, but the operations are also a big cost driver of Oculus. It is important for Oculus to reduce the costs of manufacturing, because competitors already entered the VR market at lower prices than Oculus (Carey, 2016). However, the assembling of the headset, the testing and software development generate this added value alongside with the unique head tracker and sublime lens of the Rift (inbound logistics). The marketing activities are essential for the Oculus Rift, it needs to continue its status as top-of-the-market product and 'best VR experience' needs to be linked with Oculus in every customer's mind, so marketing will be a cost driver of Oculus. The delays of the shipments (outbound logistics and service columns) impede this continuation. Oculus needs to hire support and service managers to deal with the issues and possible errors that emerge when the Oculus Rift is finally shipped

out in August 2016 (Oculus, 2016). Negative reputation will cause higher costs for Oculus and even a decrease in revenues. Reputation management can be supported by compensating the frustrated first buyers that are waiting on their headsets. By constantly improving the hardware and software of the Oculus Rift, the headset remains differentiated from the competitors and will be hard to copy.

Resource-based view

Resources/ Capabilities	Value	Rare	Appropriability	Duration	Imitability	Substitutability	S.C.A. (G.M.)
Human capital	10	8	8	8	8	8	8.30
Financial	10	6	7	7	9	6	7.36
Reputation	7	6	7	4	3	4	4.92
Applications	9	8	8	8	6	7	7.61
Distribution	4	6	7	4	5	4	4.88
Databases	9	9	9	9	9	7	8.63
Ability to design	9	6	8	9	8	7	7.76

Oculus has a few resources/capabilities which are very important for the firm. Human capital is one of them. The skills of the employees are very diverse, because you have to be one of the best to get to work at Oculus. They search for extraordinary people which are the best achievers (Oculus, 2016). The advantage of the employees goes directly into the development of the headset and applications. Facebook has to keep its best employees and replace the bad ones when possible. It can do this because of its financial position, and because the culture is aimed at high achievements. Therefore the advantage is sustainable.

The financial resources are also an advantage for Oculus, because they do not have the pressure to generate money quickly. Therefore they can focus on the quality of their product and make sure it is the best there is (Oculus, 2016). The rareness and duration of the financial resources that Oculus has are threatened by the accession of Google and possibly Apple. The competitors at the moment (HTC & Sony)

both lack the financial resources that Oculus possesses. This advantage isn't sustainable because of the entrance of other big firms like Google (Moerman, 2016).

The reputation of Facebook is something that can be improved, along with the reputation of the Rift itself. Facebook has the reputation of capturing every data they can, while the Rift has shipping problems and already tries to protect its exclusive games (Kwame opam, 2016). This will hurt the Rift's reputation as an open standard.

Applications are another sustainable advantage for Oculus. They use a SDK (software development kit) where developers can create applications for the Rift. By making these SDKs as friendly as possible it tries to attract developers to make applications for the Rift. Another option where Oculus is also heading is the making of exclusive games (Oculus, 2016). Applications is now a strong point for the Rift because it has many applications in its store but it has to be careful in the future not to be overtaken. Therefore the advantage isn't sustainable. The value being captured is for Oculus, because the added value of the application is being made when the application runs on the Rift. Without the Rift the application isn't suitable for anything. The knowledge of the organization to make applications is obtained from the employees/designers of the Oculus Rift. The skills of these designers is tacit knowledge. In the beginning the knowledge of each is the knowledge of the individual employee. In the organization, these individual employees form a group and eventually the knowledge of the individual has become the knowledge of the whole organization. They make their knowledge explicit by making a product like Oculus Rift (McGee et al., 2010).

The distribution coverage is very important for Oculus Rift since it concerns a physical product and they need to ship it in order to make revenue. The Oculus Rift is available online for preorders only through Oculus. Distribution through other parties starts from the second quarter (Oculus, 2016). The current distribution is exclusive because the Oculus Rift will be just available in limited amounts through few distribution channels. Since there are quite a lot of problems with shipment, distribution coverage is something to be improved.

The data Facebook has can be beneficial for Oculus. Facebook has massive amounts of detailed data about all of their users, so it can easily advertise for Oculus on Facebook. On April 2016 Facebook had 1.65 billion users (Witbaard, 2016). Other firms do not have this advantage, and in the future won't have this data about users on Facebook. Explicitly due to the fact that the information of Microsoft, Google and

Apple is not as detailed and personal as the data Facebook has. Also the data Oculus does supply goes directly to Facebook to get even more information about their users, so the data goes both ways (Oculus, 2016).

The Oculus Rift is a piece of kit packing with a wealth of cutting-edge technology. The wide field of view and virtual reality of Oculus is one of the best ways found to understand the relationship between physical space and digital experiences in a way that feels nearly real. Thus, they are capable of designing a piece of kit that can change the world, that is where most people convinced themselves of (Robertson, 2016).

Corporate-level

In 2012 Facebook acquired **Instagram**, a photo-sharing app with 400 million monthly users and more than 8 million photos posted per day, for 1 billion dollars. Instagram is behind Snapchat in the photo-sharing market, Snapchat has 100 million daily active users, and 400 million snaps per day (Gotter, 2015). It is not easy to enter the photo-sharing market, since it is a complex market and requires a large initial investment to compete with these two strong market leaders. Facebook has start running advertisement programs on Instagram one year ago. Facebook has yet to offer insight in the amount of money it has been making. Credit Suisse estimates that they made 3.2 billion dollars in revenue this year and 5.3 billion dollar by 2017, which shows the industry is profitable (Griffith, 2016).

In 2014 **Whatsapp**, a social messaging service with 1000 million users (Statista, 2016), was purchased by Facebook for 19 billion dollars and became the market leader in social messaging apps with a market share of 44% (more than Facebook Messenger 35%) (1 MTB, 2013). Whatsapp might not seem profitable because it doesn't run advertisements, but the app is very valuable to Facebook to gain personal data and for the company image of being on the edge of technology (Page, 2016).

In March 2014 Facebook purchased **Oculus VR**, a virtual reality company, for \$2 billion. Oculus VR is the creator of the Oculus Rift. Oculus is expected to sell 667.000 Rift headsets this year, which leads to a revenue of 400 million dollars. Facebook can profit from the sales of the Oculus Rift, but also from the royalty fees from videogames sales (Owusu, 2016).

Mark Zuckerberg, CEO of Facebook, is expecting that the virtual reality market will have a slow consumer adoption rate (Owusu, 2016), but will be rapidly growing. It is difficult to enter the market, since it requires a lot of complex technology (knowledge). Oculus has a high competitive position,

because of the current hype created by their marketing program and their name recognition. Oculus benefits from a first-mover advantage, since they are available in stores first for a relatively good price: \$599. HTC's Vive costs \$799 and Sony is to be released later this year for \$399 (Owusu, 2016).

Oculus is currently leading this, very competitive, market (Ripton and Prasuethsut, 2015). Sony is one of the competitors of Oculus, with their Playstation VR. While Oculus is PC-only Sony has the benefit of being able to tie it to their console hardware, which creates the possibility of body tracking. Oculus is winning however with their focus on immersion and realism (Gao, 2015). HTC's Vive is also a competitor to Oculus and build for PC-use, but the Vive seems to be more interactive because the Vive has controllers added to the headsets (Ripton and Prasuethsut, 2015).

In 2014 Facebook, purchased **ProtoGeo Oy** and its app **Moves** which will help to enter in the fitness and health monitoring market (Page, 2016). The app runs in the background collecting location and activity data, which contributes to Facebook's already extended data collection (Dredge and Hern, 2014). The fitness and health monitoring market contains a lot of parties, most of them are better known than Moves e.g. the Fitbit app and Nike's application and fuelband (Mutual Mobile, 2016). Business insider shows that the fitness wearable market in the United States grew, between 2010 and 2014, on average 500% year-after-year, counting a sale of almost 4 million units (Mutual Mobile, 2016). It is a promising market, however also easy to access. Creating an application of this sort requires knowledge, but a relatively low initial investment.

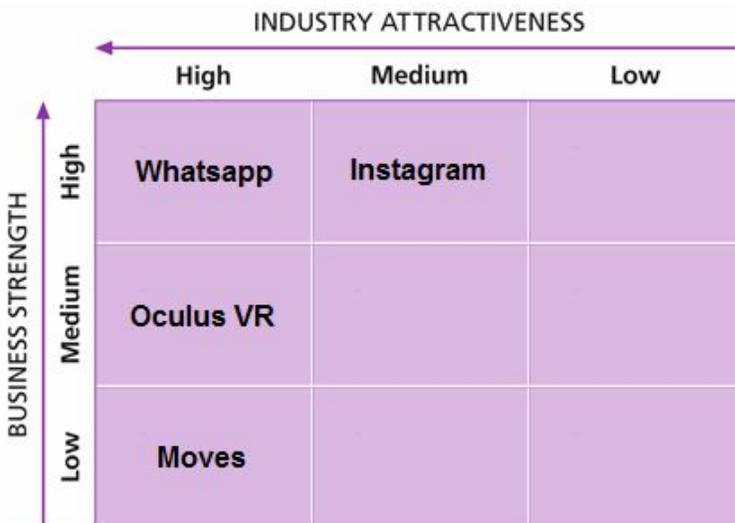


Figure 1. Directional Policy Matrix

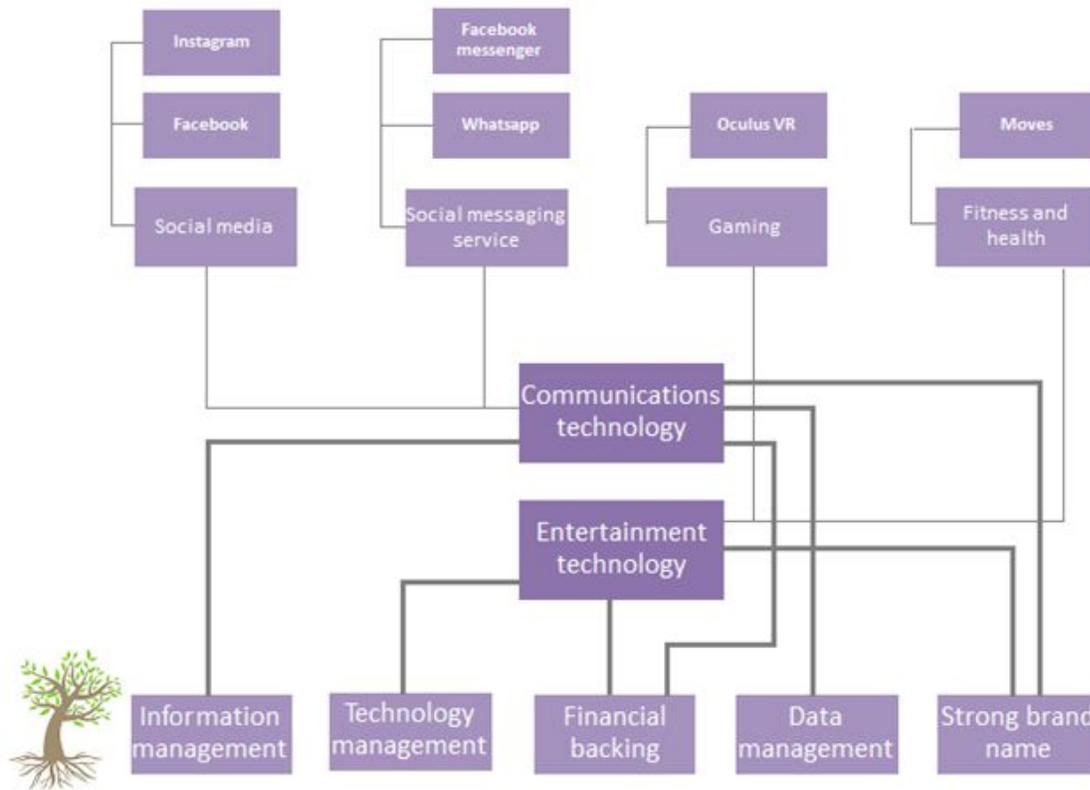


Figure 2. Core Competence: The Company as a Tree

Corporate level advice

Facebook needs to diversify in order to keep earnings growing and keep adding value for customers now Facebook has entered its mature phase, therefore Facebook needs to acquire more SBUs like Oculus VR and Moves (Page, 2016). Investing in growing markets that they can be successful in, considering their core competences. All SBUs benefit from a larger data/user base, therefore the ability of collecting user data should be their main selection criteria. Thus, Facebook can create value by SBUs that can contribute to their data/user base and/or their corporate knowledge. Value can be destroyed when they lose sight of their core competences and take their ambition to building a strategic center too far.

Network-level

Winner takes all model

The price-quantity relationship is normally held to be downward sloping, but the demand curve for a network product is reflected in the price he or she is willing to pay. The principal driver of value is the size of the network, the installed base (McGee et al., 2010). In network externalities sales rise as the accumulated sales rise, but an important problem that may arise for Oculus is that customers may not be

interested in Oculus because the installed base of the product is too low (McGee et al., 2010). So, we can say that in the digital world, the valuation of a product increases the more that others consume the product (McGee et al., 2010). For this reason, expectations of customers are so important in driving demand that a point exists where the momentum is so overwhelming that success becomes a runaway event and we observe a winner takes all phenomenon (McGee et al., 2010).

The installed base must be of adequate size and has to grow, so customers want to join the network of Oculus. The installed base can be of adequate size, because of the ownership of Facebook. Facebook can raise the expectations of customers. For that reason, our advice for Oculus will be to keep the price lower than the price customers are willing to pay. Now customers can easily enter the new network, which eventually cause a rising valuation for other customers to also join the network. However, a low price is not enough for Oculus. Oculus have to keep the early adopters as satisfied as possible and keep the quality high to reach mainstream adoption (Joyce, 2016). This also connects with the generic strategy Oculus have to follow. The outcome of the analysis was a focus strategy, because the market is initially narrow, so Oculus have to focus on the quality so that adoption process will start up.

To keep customers in the Oculus/Facebook network, the switching costs to other products or networks have to be as high as possible and there arises a lock-in (McGee et al., 2010). A lock-in occurs when customers have to invest in multiple complementary and durable assets of a physical platform (McGee et al., 2010). Therefore, Oculus have to develop a large range of games especially for the Rift. The focus should again be on the quality of the Rift and the complementary assets.

When more customers enter the network, the value in the network will increase. If the demand side is increasing, Oculus have to broaden their network to other applications. The loyal customers, who are already locked-in, will use the network for other applications as well. Other applications can be for example video conferencing, the design sector (e.g. engineers and architects), healthcare, education and logistics (Chandran, 2016). By broaden the market for Oculus products, the value from complementarity will grow. This also connects with the previous advice for Oculus in the generic strategies analysis, to later adopt a differentiation strategy.

By implementing our advice, Oculus should reach the 'tipping point', where the installed base tips expectations sharply towards Oculus and away from Oculus' rivals (McGee et al., 2010).

Decision-making processes; risk & ambiguity

We want to take a look at how the VR-market will look like in 5 to 10 years. Therefore we can get a view what the influence on the changes on the VR-market is on Oculus and Facebook.

Oculus will be dealing with international rules and regulations because it operates in many different countries. This can be a problem since Facebook stated that they want to unite the people (van Ammelrooy, 2016). The use of technology will be more baked in our culture and lifestyle than ever before. VR and AR will see a big development since we are only at the beginning of the possibilities. New patents and products will be released every year and development will be fast to be the first company to create the best user experience. This will also raise the competition for Oculus, which also shows at the Five Forces model.

Technological innovation will certainly grow in the coming years. The competition will also grow along and is therefore a driving force. The importance of social media will raise to contact each other, also in more poor areas of the world like Africa and Asia. The experience of VR will vastly improve and will be important in different areas of the society, like in hospitals, selling houses, concerts or training for different things. Data will be more important than ever for personalisation, and artificial intelligence will help us in our day to day life like managing our calendars and appointments. Internet will be available worldwide.

There are a few critical uncertainties which will be very important for Oculus. Will VR/AR ever catch the masses, or will it be unreachable for people not interested in tech at all. The key question is what the experience of VR will be in 5 to 10 years. Also, how important will VR be for businesses? Will the technology ever be good enough to have enough added value to be important? Are internet connections good enough to interact with people all over the world via games or videos?

The alternative futures are therefore very different:

- 1) VR/AR is going to be important for social media, and both will blend together so Facebook will make a platform where it integrates all of their services with Oculus.
- 2) Facebook can not reach the critical mass with the Rift and places its bet on cheaper platforms to reach all the people. Oculus will be primarily for business to business use.
- 3) VR/AR will only catch on to the early adopters due to high switching costs from old techniques and therefore flop.

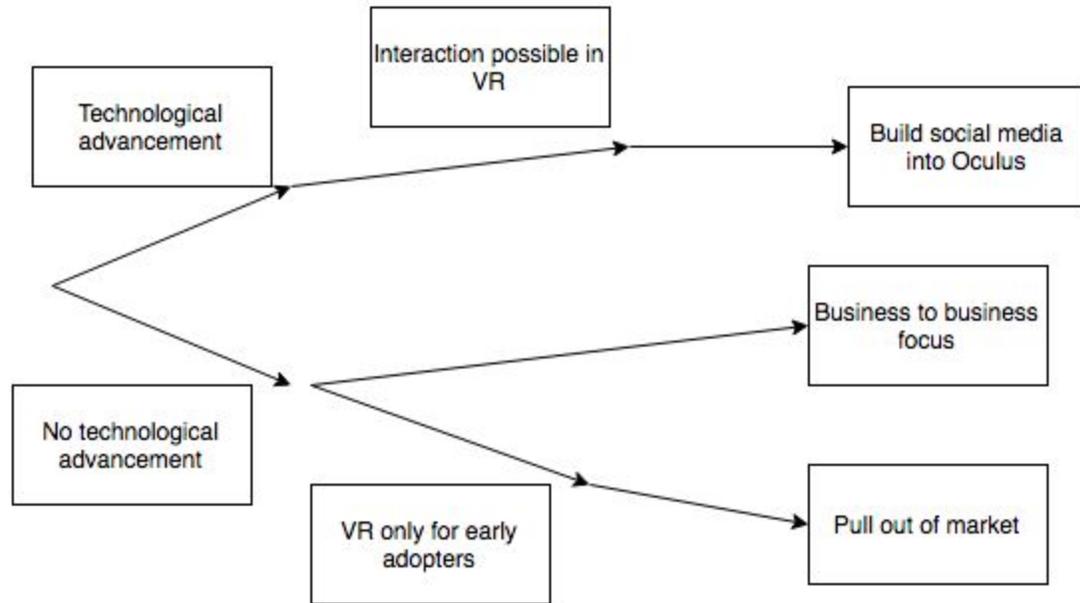
How the scenarios play out also differs:

1) Very likely if the firms keep developing technology. This scenario can take longer than expected but the technology moves quickly and will always be moving to improve. The biggest differentiator of Oculus is the social network Facebook. Facebook themselves have already announced that they believe VR is the future for social media (Vanian, 2016). It is therefore important that Facebook and Oculus work properly together to integrate all the services in a good way on the product Oculus offers. This enables Oculus to focus on a differentiation strategy, since it can operate on multiple markets, but with social media in common. If the interaction part of VR/AR enables people to seriously interact with each other like talking, making gestures, voice interactions, body tracking and so on, Oculus should already be building Facebook (the social media part) into their software.

2) VR will grow with 183.6% between now and 2020, as stated in Potoraca, 2016. Oculus has to make its hardware way cheaper to make it reachable for the masses. If it turns out Oculus can't achieve this, Facebook will be looking at other cheaper alternatives. This signal can be found in the development of the Rift: are there areas where costs can be significant cut? If the difference between a smartphone based VR experience and a stand-alone headset grows tighter, it is time for Facebook to look at those cheaper alternatives. Facebook is trying to reach as many people as possible for social media. It already collaborates with Samsung with the software of the Gear VR, which is much more affordable. Oculus can in this scenario exist of business to business cases, like hospitals or military training. Here powerful hardware is required. A focus strategy makes sense here, because Oculus only focuses on business units to sell their products.

3) Scenario 3 is also likely if it turns out the required hardware can not be build and make cheap enough to be reachable for the masses. This again can be found in the development of the different parts of the Rift: can it improve, whilst making the parts cheaper? If people and firms can not be bothered to see the added value of VR due to the combination of high price/switching costs and slow development, they will stick with whatever they have as learning methods or training, and will not switch to VR. Brand awareness will play also a part in this process. If there is a lack of brand awareness, Oculus will not have enough sold units to make profit and Facebook will ditch the business unit.

These choices can also be displayed in a decision tree:



Scenario	Common Variables	Social media	Development VR/AR	Business to business
1	Technological advancements	yes	yes	no
2	Competition	no	yes	yes
3	Added value in the eyes of the customer	no	no	yes

Integrated advice for the future

Virtual reality today is a vast, highly interdisciplinary research space that has only begun to be explored (Oculus, 2016). So Oculus will be best fitted in the differentiation focus strategy to start with. In about a couple of years, Oculus might better fit in the differentiation strategy. The operations of Oculus generate the most added value to the product, but operations are also a big cost driver of Oculus. It is important for Oculus to reduce the costs of manufacturing, because competitors already entered the VR market at lower prices than Oculus. Network externalities will raise the switching costs for customers, so there arises a lock-in. Therefore, Facebook needs to diversify in order to keep earnings growing and keep adding value for customers. Therefore, Facebook needs to acquire more SBUs like Oculus VR and Moves (Page, 2016). Investing in growing markets that they can be successful in, considering their core competences.

Outcome of our resource analysis is that the generated database is the most competitive and sustainable advantage of Oculus. Thus, Facebook can create value by SBUs that can contribute to their data/user base and/or their corporate knowledge.

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