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Organisational capabilities for monetising on digital transaction platforms

A single case study in the MedTech industry

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Abstract

Title: Organisational capabilities for monetising on digital transaction platforms - A single case study in the MedTech industry.

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Keywords: Digital business model transformation, digital platforms, platform monetisation, organisational capabilities

Purpose: The purpose of this study is to explore what organisational capabilities are needed to monetise on the value of a digital transaction platform during a business model transformation.

Methodology: In order to fulfil the purpose of this thesis a qualitative single case study was conducted with an abductive reasoning. The empirical data was collected through 12 semi-structured interviews in addition secondary data was obtained through the case company.

Theoretical Perspectives: This study is based on theory of digital business model transformation, platform theory, platform monetisation and organisational capabilities.

Empirical Foundation: The object studied in this research is one firm within the MedTech industry. Here, internal and external perspectives are being presented. The case company has recently introduced a digital transaction platform.

Conclusion: The conclusion derived from this study brings forward six capabilities needed for transforming the business model towards monetising on the value of a digital transaction platform. These capabilities are divided into the three themes: *enable*, *create* and *capture*. To enable value on the platform, the capabilities *innovative mindset* and *supportive leadership* are assumed to be needed. To create value, the capabilities to *identify customer needs* and *meet customer needs* are required and to capture the value, capabilities of *monetisation timing* and *monetisation strategies* are required.

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1. Introduction and Problematisation

“If you think about it like a game of chess... I mean, you need to make a few moves before you're in a position to make the move that you want to do”.

– Interviewee: Director of Strategy and Consulting

While the global economic output has never been greater, navigating a business has never been more challenging. The business landscape has become more uncertain, and firms are facing different risks driven by technological development, geopolitical catastrophes and the emergence of non-traditional, digital, competitors to only mention a few (Hamel & Valikangas, 2004). Success in these times is no longer based on momentum, it rather comes down to the ability to dynamically reinvent strategies and business models as the business environment changes. *“In a turbulent age, the only dependable advantage is a superior capacity for reinventing your business model before circumstances force you to”* (Hamel & Valikangas, 2004, p. 53).

A business model outlines how a certain business works and how it creates value for its customers (Magretta, 2002). It comprises amongst others the value proposition, competitive strategy, market segmentation and revenue-generating mechanisms (Chesbrough & Rosenbloom, 2002). Given the speedy development of technologies, especially digital business model transformations, which refer to the incorporation of digital elements into the business model (Zhang & Liu, 2016), have emerged and shaped the way firms are doing business today. One of the most influential businesses model transformations of our time is when a digital platform is being incorporated into a business model (Tiwana, 2014).

Parker, Van Alstyne & Choudary (2016) define platform business models as an infrastructure for the facilitation of value-creating interactions between external producers, or suppliers and users. The platform's overarching purpose is the matchmaking of two sides such as customer and supplier as well as the exchange of goods and services between those. Digital platform business models have in the last two decades come to be one of the most influential business phenomena of our time. Today, seven out of the world's ten largest companies are platform based (Schenker, 2019; Cusumano, Gawer & Yoffie, 2019) which indicates that this

transformative concept is radically changing businesses, the economy and society as a whole (Parker, Van Alstyne & Choudary, 2016). Platforms do however not only exist as standalone phenomenon building the main revenue stream for businesses. An increasing number of companies see the potential to generate additional revenue and gain competitive advantage by reinventing their business model adding digital platforms to their existing business model. Mancha and Gordon (2022) present different ways for organisations to innovate their business model by introducing digital platforms. One solution is to use a platform to expand existing product or service offerings by matching existing customers with third-party producers, who can then offer additional value. Another way is to use the platform as a marketplace to exchange value in the industry. No matter which strategy a firm chooses, moving from a non-platform to a platform business model requires a significant shift in competitive strategy and the need for specific capabilities to be developed (Parker, Van Alstyne & Choudary, 2016; Cusumano, Gawer & Yoffie, 2019). Schrieck, Wiesche & Krcmar (2021) highlight that without the required capabilities, organisations will struggle to initiate value creation in the first place or to monetise on the value.

When taking a closer look at current platform theory it becomes evident that theory differentiates between two basic platform types - transaction and innovation platforms (Cusumano, Gawer & Yoffie, 2019). Within innovation platforms the owner shares common technological building blocks so that new, complementary products and services can be built by partners. Google Android, Microsoft Windows, and Apple iOS are prominent cloud computing services and operating systems that serve as innovation platforms. Whereas transaction platforms in contrast create value by facilitating interactions such as the buying or selling of goods or content sharing between user and supplier and by reducing frictions such as transactions costs and information asymmetry (Armstrong, 2006; Rochet & Tirole, 2006) Amazon Marketplace, Facebook, Mastercard or Yellow pages are examples to just name a few (Cusumano, Gawer & Yoffie, 2019).

Transaction platforms are complex and come with various strategic challenges, hence platform-based businesses require a different mindset for strategic decision making. (Cusumano, Gawer & Yoffie, 2019). One of the key challenges theory highlights is how platforms are going to provide value to its participants, by building a steady stream of new participants known as positive network effects but at the same time generate revenue and increase company profits

(Tiwana, 2014; Wang, Tang, Jin & Ma, 2014; Parker, Van Alstyne & Choudary, 2016). The question about how a platform can create revenue streams is usually addressed in the third phase of digital platform creation. Cusumano, Gawer & Yoffie (2019) outline that when a business decides to introduce a platform, a four-step approach is being followed. (1) chose the market sides, (2) attract participants to the platform, (3) adjust the business model, and (4) create and enforce platform policies. When adjusting the business model in the third phase, key processes, resources, or the value proposition are being adjusted in order to monetise on the value that the platform is creating. Deciding on a suitable monetisation strategy is, as outlined earlier in this chapter a crucial part of the business model and plays a pivotal role for platforms and can make or break the long-term success and survival. Mispricing one side of the platform is a common mistake that can lead a platform to failure (Cusumano, Gawer & Yoffie, 2019). Within the last decade monetisation strategies have received increased attention in scholarly research. A specific focus is directed towards the various monetisation strategies for different platform types and how value can be created and captured (Wang et al., 2014; Constantiou, Marton & Tuunainen, 2017; Muzellec, Ronteau & Lambkin, 2015; Trabucchi, Buganza & Pellizzoni, 2017).

After studying exiting literature on platform monetisation, the authors recognised that an understanding of what capabilities a company should possess in order to reinvent its platform business model to monetise on the value seems close to non-existent. However, the authors deem it relevant shifting the attention to those capabilities, given the complex nature of platform strategies. As presented, success in today's business landscape comes down to the ability to dynamically reinvent strategies and business models as the business environment changes. To be able to reinvent platform business models towards a more profitable set up it is expected that specific capabilities are needed. As the quote in the beginning highlights, it is presumed that a company needs to “make a few moves” i.e., attain certain organisational capabilities “before you’re in a position to make the move you want” i.e., start monetising on the value created by the platform and generate revenue.

Overall, scholars have presented capabilities organisations need in order to develop a platform, however, those are mostly described on a general basis and not in direct correlation to capabilities for platform monetisation (Helfat & Raubitschek, 2018; Teece, 2018). Helfat & Raubitschek (2018) bring forward capabilities that are needed for the value capture process; innovation, environmental scanning, and integrative capabilities but the article leaves out the

specifics of monetisation. Tan, Pan, Lu & Huang (2015) demonstrate how capabilities should be leveraged during the development of multi-sided platforms but also pay no attention to monetisation strategies. Schreieck, Wiesche & Krcmar, (2021) recently addressed the question of what capabilities companies need to capture value on platforms. This research however is built around innovation platforms and thus heavily impacted by technological capabilities and the relationship between third-party developers, who create complementary software for the platform. Therefore, it is disputable whether these findings can be transferred to transaction platforms. To conclude, it can be said that to the authors knowledge there is no comprehensive understanding of which organisational capabilities are needed to successfully monetise a platform with a focus on transaction platforms. A gap in the research regarding platform monetisation has hence been identified and will be examined in this thesis.

1.1 Purpose Statement and Research Question

Based on the above introduction and problematisation it seems that platform business models are becoming increasingly relevant for long term competitiveness. Once a platform is launched the owners need to decide if and how it is viable to monetise on the value created in order to generate revenue. Monetising on platform value is a strategic challenge that seem to require specific organisational capabilities. However as presented, uncertainties regarding what organisational capabilities are needed to monetise on the value of a digital transaction platform exist. Therefore, the purpose of this study is to explore what organisational capabilities are essential when a firm reinvents its business model to include a platform monetisation strategy. To examine this, the following research question have been formulated:

What organisational capabilities are needed to monetise on the value of a digital transaction platform during a business model transformation?

1.2 Research Limitations

This study naturally comes with theoretical and empirical limitations which will be outlined in the following. As for the theoretical limitations it can be stated that the research of this study is based around digital transaction platforms focusing on what organisational capabilities are needed in the phase where a company reinvents the business model to monetise a platform.

This study is limited to transaction platforms even though within platform theory another type – the innovation platform – exists (Cusumano, Gawer & Yoffie, 2019). Transaction platforms have been chosen based on the identified research gap as well as the research object. Furthermore, it should be addressed that, since platform research is broad, several concepts, such as platform governance are being briefly outlined to create an understanding for the reader but receive no further attention. Finally, as the analysis focus is to identify the capabilities that are needed for platform monetisation, different monetisation strategies are being outlined but not discussed in detail.

When addressing the empirical limitations, the authors deem it relevant to clarify that the findings can be described as a snapshot of the situation studied. Additionally, it is worth highlighting that the chosen case company has not implemented any monetisation strategies at the time of the data collection. Therefore, the findings in this study are based on the perception of the monetisation potential of the platform among the respondents in this study.

Lastly, this thesis is limited to the certain industry studied which will be presented in more detail in chapter 4.1. Conclusions derived from this study should therefore only carefully be applied to other settings and industries. What however increases the transferability is the detailed description of the conduction of the study which is further outlined in chapter three.

1.3 Outline of the Thesis

Following the introduction, chapter two intends to introduce the current state of affected topics in this research. A concise presentation of digital business model transformation and its relevance in connection to digital platforms is brought forward followed by a comprehensive outline of current literature on platform theory and monetisation strategies. On the foundation of the previous themes, the literature review provides an understanding of organisational capabilities. The chapter is concluded with the establishment of a framework built around the presented literature and is intended to serve as a foundation for the framework this study brings forward later in chapter five.

Furthermore, the methodology in chapter three outlines how the research has been conducted and reflects upon the thesis in terms of quality. In addition, the case company will be

introduced. The presentation of the gathered empirical data will build up to the following analysis in chapter four. Chapter five presents the discussion where the information gained from the empirical findings are being presented and compared to theory on digital business model transformation, transaction platform monetisation, and organisational capabilities. The chapter concludes with presenting a final framework. Finally, the study ends with conclusion including suggestions for further research.

2. Literature Review

This literature review aims to construct the theoretical framework of the thesis and thus outlines the current status of concerned research fields. This is conducted in order to investigate and be able to answer the research question. The literature is reviewed critically and the identified gap in theory will be highlighted. The literature consists of three key areas, namely business model transformation, organisational capabilities and platform theory including platform monetisation. The literature review commences by presenting research on business models and digital transformations of business models. Second, the concept of organisational capabilities is outlined and defined since this research field plays a crucial role in answering the question of the thesis. Platform theory and the related concepts are presented, ensuring the reader familiarises with the terminology understand the characteristics of digital transaction platforms. Lastly, monetisation of platforms is explained as this is another central section of this thesis. Finally, the literature chapter will be summarised calling attention to the most vital sections in the theoretical framework.

2.1 Business Model Transformation

The business model concept has evolved gradually during the last decades (Nailer & Buttriss, 2020). One definition of the concept is developed by Chesbrough and Rosenbloom (2002) who describe the business model as the plan for how the organisation creates value for its customers and how it captures value or monetise on this value. Johnson, Christensen & Kagermann (2008) explain more thoroughly how this is achieved through the key processes, key resources, and its value proposition. The term was first mentioned in the late 1950's (Bellman, Clark, Malcolm, Craft, Ricciardi, 1957) hence, the concept has existed and evolved within business research for over 50 years. However, the somewhat fragmented concept has been criticised for its vagueness (Porter, Michael & Gibbs, 2001) and not always had a clear definition (Wirtz, Pistoia, Ullrich & Göttel, 2016). Over time, the business model concept however has reached a global spread and gained a wider acceptance. Many believe that Drucker (1994) in his book "The theory of the business" laid the foundation of what a business model in more detail contains despite Drucker not mentioning the term "Business model" (Ovans, 2015). The concept has at a later stage been further elaborated upon by among others Magretta (2002) and Johnson, Christensen & Kagermann, (2008). Osterwalder, Pigneur, Oliveira & Ferreira (2011) attracted further

attention to the concept by publishing a book containing the framework of the “Business Model Canvas”, which in the past decade has been widely adopted by many practitioners (Ovans, 2015).

Despite having a well-functioning business model, companies often reach a point in which a reinvention of the business model becomes crucial (Johnson, Christensen & Kagermann, 2008). Kalling (2007) describes how organisational long-term survival often rests upon the ability to renew the organisation and adapt to new needs. This need for change may come from evolving needs or requests from society, technological advancement, or political situations (Johnson, Christensen & Kagermann, 2008). The reason for change could simply also be when improvements to current offerings are small and yield small return (McGrath & Cliffe, 2011). A company’s competitive advantage may also decline over time and need adjustment to be sustained (Barney, 1991). The actual change of the business model often requires thorough strategic work, with appropriate adjustments to the value proposition and other components of the business model structure as well as the capability of having an organisational mindset for change, otherwise the transformation risks failure (Ghosh, Hughes, Hodgkinson & Hughes, 2022)

2.1.1 Digital Business Model Transformation

In the last two decades, a need for business model change in most of the world’s businesses has been seen (Fukawa, Zhang & Erevelles, 2021). This is mainly due to the many advancements in technology which has caused companies to rethink the way they do business (Cusumano, Gawer & Yoffie, 2019). The *digital* business model transformation, referring to the incorporation of digital elements into the business model and processes (Liu, Chen & Chou, 2011) has become increasingly apparent. This technological advancement brought companies easier access to both computers and the internet (Brynjolfsson & McAfee, 2014) and led to a massive interest in the field from entrepreneurs, business leaders and investors (Porter, Michael & Gibbs, 2001). Oftentimes, these new technologies enabled companies to reach a larger scale and scope. One particular digital business model transformation that has been recurring is the *platform* business model (Tiwana, 2014; Parker, Van Alstyne & Choudary, 2016; Cusumano, Gawer & Yoffie, 2019), which large multinational companies like Uber and Amazon operate on. To be based on a platform business model means that the core business is connecting two

or more sides of a market via a digital platform and profiting from these connections made. Amazon Marketplace in this case is connecting sellers with buyers on their retail platform. However, businesses don't need to fully transform their business model to be centred around a platform business model but can also launch a platform as support for its existing core business by letting third parties offer additional value to the business products or services (Macha & Gordon, 2022).

2.2 Platform Theory and Monetisation

One way to digitise a traditional, non-digital, business model is to shift to a platform business model or add a platform dimension to the existing business model. Lately, platform businesses have had great success and some of the most valuable companies in the world such as Google and Amazon operate on a platform business model (Parker, Van Alstyne & Choudary, 2016). Furthermore, digital platforms have proven to yield significant benefits in terms of scale, scope and efficiency and has largely forced businesses to reconsider how to conduct business (Parker, Van Alstyne & Choudary, 2016; Tan et al., 2015).

There are two main types of digital platforms as mentioned. The first one being innovation platforms where the platform serves as a technological foundation for developers (such as Google Android and Apple IOS where developers create applications). The second type are transaction platforms, which are focused on in this thesis, and serve as an intermediary for direct exchange of transactions (Cusumano, Gawer & Yoffie, 2019). More precisely a transaction platform can be defined as an open participative infrastructure that virtually facilitates value creation and other interactions among external suppliers and users which are also referred to as the "two sides" of the market. The purpose of a transactional platform is to enable suitable matches between the two sides to realise transactions such as exchange of services or goods etc. (Parker, Van Alstyne & Choudary, 2016)

When introducing a platform there are certain aspects the platform owner needs to consider and decide during the process. (Cusumano, Gawer & Yoffie, 2019) outline four steps in creating a digital transactional platform, namely (1) chose the market sides, (2) deal with the "chicken and egg"-problem, (3) adjust the business model, and (4) create and enforce ecosystem policies. The first step is defining the two markets the platform is going to connect.

Together the different sides of the platform create and exchange value. Here the platform owner needs to identify how the two sides may benefit from each other and how to gain access to the two sides if this is not already attained. The next step Cusumano, Gawer & Yoffie (2019) describes is bringing users to the platform. This is what is referred to as the “chicken and egg” problem. Most platforms struggle with this phenomenon in the beginning of their existence since one side of the market is required to attract the other side on the platform. For example, the ride hailing company Uber is a prime example of a transactional platform. The platform is facilitating the value creation and exchange between two sides (drivers and riders) but without drivers, there would be no riders and vice versa (Teece, 2018). Success in attracting one side, oftentimes means the other side will follow automatically and the platform can hence evolve and develop a positive network effect meaning the value of the platform increases exponentially with an increasing number of users (Parker, Van Alstyne & Choudary, 2016). This in turn should lead to the platform reaching its critical mass. A critical mass is explained as the key number of active users for the platform to fulfil its purpose and deliver satisfactory value (Cusumano, Gawer & Yoffie, 2019). Tiwana (2014) also explains this as the “tipping point”. The critical mass or tipping point can vary from platform to platform. It is common for platform businesses to therefore incentivise one side of the market to join the platform through subsidies to get the other side on board. This phenomenon will be further outlined in chapter 2.2.4

Since network effects are one of the crucial and most central aspects of a digital platform the phenomena will be explained in more detail. The network effect is widely discussed as it plays a crucial role when launching a platform. A positive network effect is triggered by the increasing number of users on the platform and can hence become a virtuous circle of new joiners bringing more value to the ecosystem of users (Tiwana, 2014). To make network effects flourish, platform owners should intend to remove barriers for joining to platform, to ease the process of joining (Parker, Van Alstyne & Choudary (2016). On the contrary, network effects can also be negative if users for some reason start to leave the platform (Cusumano, Gawer & Yoffie, 2019). This can happen for example if quality on the platform is lacking (Parker, Van Alstyne & Choudary, 2016). Actors leaving the platform can result in less incentives for others to join, and less value for the users that are already on the platform. For example, if Uber would increase its fees greatly, drivers would probably leave the platform which would result in a decrease in value for Uber riders and the platform in general.

The third step in creating a successful platform is transforming the company business model (Cusumano, Gawer & Yoffie, 2019). To reap the value from the new platform, the company needs to adjust its business model, key processes, resources, or the value proposition. This is because a platform business oftentimes changes the value proposition and other aspects of the business. As Mancha and Gordon (2022) point out, this doesn't necessarily change the whole business model, but can rather be an addition to support the core business and increase the value for the customers through allowing third parties to offer their products and services to the customers too. The fourth and last step Cusumano, Gawer & Yoffie, (2019) mention is creating rules and enforcing them in the platform ecosystem. All the actors on a platform are jointly called ecosystem and this needs to be governed by the platform owner (Cusumano, Gawer & Yoffie, 2019). Commonly it's beneficial for the owner to control which actors are, and which actors are not on the platform to create optimal value and ensure quality. However, the latter aspect or governance is not something that will be further elaborated upon in this thesis due to the scope of the research question.

2.2.1 Platform Monetisation

As previously outlined a platform goes through different steps after being launched. In the initial phase where platforms are introduced to the market the focus often lays on testing ideas, choosing market sides, raising awareness, and most importantly attracting a critical mass of users (Grieco & Iasevoli, 2022; Cusumano, Gawer & Yoffie, 2019). In this phase monetisation strategies are often not part of the business model (Grieco & Iasevoli, 2022). However, since every firm that generates and delivers value need to ensure long-term economic sustainability, business owners should consider adjusting their platform towards the adoption of revenue streams (Grieco & Iasevoli, 2022). The following chapter presents the research on platform monetisation with a specific focus on transaction platforms.

2.2.2 Definition

Within platform literature different terminologies are being used when addressing the aspect of monetisation. Tiwana (2014) defines monetisation as a dimension of pricing policies, most platform researchers however focus on the aspect of value capture when addressing monetisation since once value is created, capturing part of this value in form of revenue is often more difficult than creating it (Bock & George, 2017; Grieco & Iasevoli, 2022; Cusumano,

Gawer & Yoffie, 2019). Osterwalder & Pigneur (2011) describe the value capture process as the mechanism through which a business defines the source of revenues, the different paths to monetise products and services, as well as the cost structure of the organisation and monetisation strategies. Theory highlights the importance of implementing a value capture structure in platform business models to increase revenue and maximise ecosystem value (Parker, Van Alstyne & Choudary, 2016; Cusumano, Gawer & Yoffie, 2019). When defining value capture in platform business models Grieco and Isavoli (2022) take the evolving aspect of the platform business into consideration and address the aspect of innovation. They define value capture innovation as the innovation of an organisations core earning logic, by either changing cost structures or revenue models. Hinterhuber and Liozu (2014) also highlight the importance of innovation of monetisation strategies, since it has the potential to yield new-to-the-industry mechanisms to monetisation strategies which can lead to an increased customer satisfaction and company profits. The following chapter outlines the decision factors that play a crucial role when deciding for a monetisation strategy.

2.2.3 Aspects of Decision Making

Monetisation strategies of digital platforms have been extensively analysed. Due to the nature of multi-sidedness, platform businesses face the fundamental challenge of how to set up the price structure for the different groups within the platform (Zhang & Liu, 2016). Platform theory has explored the challenges of identifying which side of the platform - the user or the supplier - gets charged and which side gets subsidised (Cusumano, Gawer & Yoffie, 2019). Here not only the aspect of multi-sidedness but also how the platform creates value plays a crucial role since the value of a platform is based on the network effects (Parker, Van Alstyne & Choudary, 2016). Parker, Van Alstyne & Choudary (2016) highlights that this dynamic makes monetisation very challenging since charging the users can lead to them leaving or not even entering the platform which would make the platform less attractive for suppliers. Therefore, the leading question is how businesses can monetise a platform without breaking or even harming the network effects (Parker, Van Alstyne & Choudary, 2016).

To define the right revenue generating mechanisms as part of the business model, fundamental choices need to be made. The first choice addresses the question whether monetising for the two sides of the platform should be symmetric or asymmetric (Tiwana, 2014). Within asymmetric pricing the platform profits from one side of the platform while the other

side will not be charged whereas a symmetric pricing refers to equal monetisation of both sides of the platform – supplier and end user (Tiwana, 2014). An asymmetric pricing would not be wise in traditional marketplaces, however, in platform markets, strategically subsidising one side can regain the lost money from the other side. (Parker & Van Alstyne, 2005).

When deciding which side of the platform should be monetised Cusumano, Gawer & Yoffie (2019) highlight the need for practitioners to understand the different market sides willingness to pay and how much the sides expect the counter side to engage. The authors emphasise that the demand characteristics from each side should be the main driver for the business model, which in practice is hard to assess since the degree to which side members are willing to pay for being matched with another side varies from market to market. Parker, Van Alstyne & Choudary (2016) builds on this argument and highlight that in order to approach the monetisation challenge a thorough analysis of the value created needs to be done. Here Parker, Van Alstyne & Choudary (2016) present four forms of value that a platform creates. For users they comprise access to value created on the platform, for suppliers access to a market and for both sides access to services and tools that facilitate interaction as well as access mechanisms that enhance the quality over time. Parker, Van Alstyne & Choudary (2016) conclude: “A smart monetisation strategy begins by considering all four forms of value, then determines which sources of excess value can be exploited by the platform without inhibiting the continued growth of network effect” (Parker, Van Alstyne & Choudary, 2016, p. 92). The following chapter further builds on the presented factors and outlines different monetisation strategies.

2.2.4 Monetisation Strategies

Another fundamental choice platform owners face when adjusting their business model to capture value on their digital platform is choosing the right monetisation strategy. Since multi-sided markets, and especially transaction platforms build a different type of market structure than linear value chains, new revenue models have evolved and been studied intensely (Kemppainen, Koivumäki, Pikkarainen & Poikola, 2018). To build on the previous outlined challenge on which side should get charged, platform research outlines some additional criteria that are relevant when choosing one or multiple monetisation strategies.

Tiwana (2014) points out that platform owners must decide if they are monetising on access or usage. Monetising on access comprises the fees that are usually charged for the suppliers to

gain access to the platform whereas usage fees are for the actual usage of the platform. Ritter and Schanz (2018) further build on this by adding another dimension that needs to be considered. The authors outline that revenue streams can be utility bound or unbound. Utility bound revenue streams can be defined as one-time financial compensations, that are usually linked to quantity of usage during a period of time. Utility unbound revenue streams are usually chosen when the created value cannot directly be connected with the financial gain and hence is paid on a periodical basis. Based on the different characteristics presented, different monetisation strategies can be introduced to the business model of transaction platform. Table 1. summarises some of the existing monetisation strategies. More strategies such as usage based licensing and freemium models exists, but the authors do not deem a presentation of all methods relevant in the context of this paper.

Monetisation strategies	Definition	Pricing for access vs usage	Utility bound or unbound	References
Subscription	User pays for a subscription period independently of usage which gives access to use the platform and usually includes future updates to Apps during that period.	Access	Unbound	Tiwana (2014), Wang et al. (2014)
Transaction	The platform owner receives either a percentage of the transaction price or a fixed fee per transaction after matching supply and demand successfully	Usage	Utility bound	Täuscher, K., and J. Kietzmann. (2017), Parker et al. (2016), Wang et al. (2014), Cusumano et al. (2019)
Advertising	Platform offers free services that draw large numbers of users, who then become target for the advertisers that pay for access to those consumers	-	Utility bound	Trabucchi et al 2017, Wang et al. (2014), Parker et al. (2016)
Connection fees	Service providers pay for connecting their services to the platform and connecting with individuals	Access	Unbound	Kemppainen et al. (2018), Parker et al. (2016)
Complementing Products or Services	Platforms charge for complementary products or services such as delivery service	Usage	Utility bound	Cusumano et al. (2019)

Table 1. Monetisation strategies in transaction platforms

When comparing the different strategies presented it seems that there is no one size fits all solution. Deciding on a suitable monetisation strategy however plays a pivotal role for platforms and can make or break the long-term success and survival (Parker, Van Alstyne & Choudary, 2016; Cusumano, Gawer & Yoffie, 2019). An example of a platform in which the

monetisation strategy failed is Billpoint. Billpoint was eBay's digital payment system before the firm acquired PayPal. The core issue was that Billpoint charged higher transaction fees, while the competition PayPal gave incentives to users who invited others user to join (Parker, Van Alstyne & Choudary, 2016). Billpoint's focus was on fraud prevention which could keep the platform costs down in the long term but automatically put a weight on user transactions, which prevented value-creating activity. Consequently, PayPal became the payment system of eBay. This is just one of many examples showcasing that platform monetisation strategies that come at the expense of building network effects are usually not sustainable for long term success since they work against the core mechanism of a platform which is value at scale (Van Alstyne et al., 2016).

The chosen monetisation strategy is only appropriate when it does not prevent network effects. Here Parker, Van Alstyne & Choudary (2016) point out that measuring network effects only based on the amount of participants on the platform is not sufficient to assess the monetary value of a platform. The transactions or services facilitated must generate enough value which the platform can capture without creating a negative impact on network effects. Network effects become especially important when they lead to the building of a long-lasting network of users driven by the so-called lock-in effect. Liebowitz & Margolis (1994) first defined lock-in effect as a phenomenon where the user is dependent on a product or service and is unwilling to switch to another provider since this would entail a high switching cost. Often platform owners start by offering their services for free to attract users and encourage participation. Only after customer stickiness which refers to the pattern of active users of a platform (Tiwana, 2014) or lock-in effects are realised the platform owner should seek to capture that value, hence introduce monetisation. Finally, Parker, Van Alstyne & Choudary (2016) suggests, that two principles should be followed when introducing monetisation strategies. First, platform owners should avoid charging for value that users formerly received for free and secondly, when transitioning from free to fee, platforms should aim to create additional value e.g., in form of services that strive to create new value which make up for the money charged (Parker, Van Alstyne & Choudary, 2016). To summarise platform monetisation, various considerations are needed when business owners adjust their business models towards the adoption of revenue streams to monetise on the transaction platform (Grieco & Iasevoli, 2022). One of the most crucial monetisation choices is to identify which side of the platform gets charged and which side gets subsidised, understanding the demand characteristics from the different participants, how value is created (Cusumano, Gawer & Yoffie, 2019) and finally choosing the right

monetisation strategy (Parker, Van Alstyne & Choudary, 2016). To implement monetisation strategies to a digital platform, it is argued that certain organisational capabilities are needed (Ghosh et al., 2022). This will be further explained in the following chapter.

2.3 Organisational Capabilities

Organisational capabilities in general, is a concept with multiple definitions, and many scholars have attempted to describe it during the last decades. Nelson & Winter (1982 in Fagerberg, 2019) described how organisational routines shape the capabilities of companies, and Cohen & Levinthal (1990) explained the “absorptive capacity”. Later Kogut & Zander (1992) coined “combinative skills” but most famously, Teece (1997) presented and defined “dynamic capabilities”. Evidently, there are years of scholarly work behind defining these somewhat similar concepts and to not bring confusion, they will collectively be referred to as “organisational capabilities” and in this study defined as a company’s ability to combine and deploy its resources and efforts to reach a desired result, execute the strategy successfully and make required business model changes over time. Several scholars have presented similar definitions (Amit & Schoemaker, 1993; Winter, 2003; Grant, 1991; Teece, Pisano & Shuen, 1997). One could argue that the emergence of the field of organisational capabilities stem from Barney’s (1991) research on the resources-based-view (RBV) of the firm and the idea of attaining and combining various resources for superior firm performance. Oftentimes, there is a confusion about the difference between resources and organisational capabilities, but as Amit and Shoemaker (1993) describe it is assumed that organisational capabilities differ from resources in the sense that organisational capabilities are leveraged resources, meaning that distinct combinations of a firm’s various resources and information enable an organisational capability. Resources can furthermore be argued to be something a company owns or controls (Amit & Schoemaker, 1993), such as physical assets, intellectual property, inventory, contracts, output of the employees, trade secrets etc. while an organisational capability is what the company can do with those resources combined. Moreover, there is substantial theoretical support assuring that a firm’s various capabilities have a direct linkage to firm performance (Lee, Lee & Pennings, 2001; Mithas, Ramasubbu & Sambamurthy, 2011; Ravichandran, Lertwongsatien & Lertwongsatien, 2005). Therefore, it can be deemed key to master certain organisational capabilities in various company undertakings. Many different organisational capabilities have been presented in previous scholarly works (by among others Ulrich & Smallwood, 2004; Nasution & Mavondo, 2007) and some of them are organisational learning,

innovation, agility, customer-centricity, talent, strategic unity, mindset, and collaboration among others.

When it comes to identifying organisational capabilities for monetising on the value of digital platforms the research conducted appears modest as indicated in chapter one. The authors Schrieck, Wiesche & Krcmar (2021) and Tan et al. (2015) have conducted studies on capabilities needed for platforms, however these studies are mainly focused around *innovation* platforms which by nature are more centred around purely technological functionalities. Hence these articles heavily highlight the technical foundation and information system (IS) capabilities of a platform which is not the focus of this thesis. Another study deemed interesting is an article by Konopik, Schuster, Hoßbach & Pflaum (2022). They present necessary organisational capabilities for digital transformation. Since transforming a business model to a platform business model could be considered part of a digital transformation, the findings from this study seem relevant and will be presented. Konopik et al. (2022) find seven key capabilities to master which are strategy, innovation, technology, operation, organisational design, and leadership. Strategy more specifically is referred to as a company's ability to adapt the business model for change over time. Innovation includes abilities to enable the emergence of new ideas and inventions both internally and externally, with a specific focus on the customer experience. Technology which is highlighted to naturally play a pivotal role in digital transformation contains the abilities to incorporate new and disruptive technologies into the firm. Operational capabilities refer to the regular business activities and the continuation of these while simultaneously preparing for and pursuing the new digital direction. Organisational design contains how the organisational structure commonly is adjusted due to the digital change to ensure an optimal flow of knowledge and information. Lastly, leadership is thought to compose a significant role, especially in directing employees in a desired direction in times of digital change, such as a platform business model transformation. Another leadership ability highlighted is to lead in long-period projects where the outcome is uncertain and where long-term investment is required to reach organisational goals. Breznik & Lahovnik (2016) further claim that leaders should facilitate a trust-based connection between leaders and employees, ensure clear communication within the organisation and encourage employees to feedback seeking habits. According to (Nadkarni & Prügl, 2020) leadership also includes promoting a beneficial mindset to the employees and view this as key to transforming a business. This may include trying to change it from a fixed mindset to a growth mindset which is viewed as more

enabling and beneficial in a business setting as it means for example not being afraid to fail, a desire to try new things, and viewing challenges as an opportunity to grow (Dweck, 2007).

As presented earlier, the research on relevant organisational capabilities for monetising on digital *transaction* platforms is to the authors knowledge inexistant. One relevant piece has been identified and is written by Helfat & Raubitscheck (2018). This article highlights three capabilities namely innovation, environmental scanning and integrative capabilities as key for value capture. Innovation points to the organisations' ability to innovate their products or services with new features and bring new ones to the portfolio. The authors also refer specifically to product development as a part of innovation and explains how firms commonly have routines and processes for how this is carried out (Helfat & Raubitscheck, 2018). Furthermore, innovation capabilities are seen as a tool to shield the company from emerging competition and argues how innovation capabilities help platform owners overcome such threats. Additionally, (Chang, Wu & Liu, 2020) argue, that the organisation in such situations benefits from creating a risk-taking, freedom-under-responsibility approach among employees.

The second capability that is brought forward by Helfat and Raubitscheck (2018) is the environmental scanning capability. This is an ability for the company to sense and detect threats and opportunities in its periphery. They argue how this is crucial because of the rapidly changing environment digital transaction platforms face. An ability to master this could bring the company access to new, unspotted markets, see changes in customer demands, and detect emerging dangerous competitors early on. In addition to scanning the environment the company in question need to have a strong understanding for its core products and services to be able to assess the potential value of making amendments to it.

The last capability described by Helfat and Raubitscheck (2018) is what they refer to as integrative capabilities. This entails the ability to amend the platform, its features, and the business model to stay competitive despite its environment changing. The *integrative* refers to the pure coordination, communication, and action of integrating the modifications needed to the business or its offering. The authors propose that having strong integrative capabilities can help a business create and capture value by bringing more actors to the platform in question. Furthermore, the integrative capabilities contain the aspect of having beneficial relationships with the company's external partners, where it becomes advantageous to align the offering,

objectives, and other company activities with partners to capture value on a platform (Helfat & Raubitscheck 2018).

As presented Helfat & Raubitscheck (2018) highlight three essential capabilities when it comes to digital transaction platforms. However, the authors leave out the aspect of monetisation while focusing on general value capture and calling out for more research within the area. Vial (2019) further calls for more research to be made on what organisational capabilities are needed for value capture on digital platforms. With this, our research question serves as a foundation to investigate this specific area further.

2.4 Summary and Preliminary Framework

When reviewing the literature regarding organisational capabilities needed for monetising on digital transaction platforms three relevant theoretical fields were identified, namely business model transformation, platform theory including platform monetisation strategies as well as organisational capabilities. When it comes to business model transformation it is recognised that digital platforms are becoming increasingly common. When introducing a platform, organisations need to consider if and how the value created should be captured after positive network effects are in place. Here, various monetisation strategies can be introduced but deciding for the right strategy, which side should be subsidised or not, or if direct monetisation is benefitting the business at all requires careful consideration and specific organisational capabilities in place. Various organisational capabilities have been brought forward by literature in connection to business model transformation, but little research is done on the organisational capabilities in connection to platform business models, focusing on monetisation strategies. To the authors knowledge only one article presents capabilities in connection to platform value capture which are environmental scanning, innovation, and integrated capabilities. These are presented on a rather general level and no direct connection to monetisation strategies are being presented. As the theoretical gap presents, previous studies have put limited emphasis on capabilities needed for platform monetisation. By focusing on organisational capabilities needed for platform monetisation the authors of this study build on the depth of the existing literature. The construction of the literature review and the derived theory is visualised in the theoretical framework below.

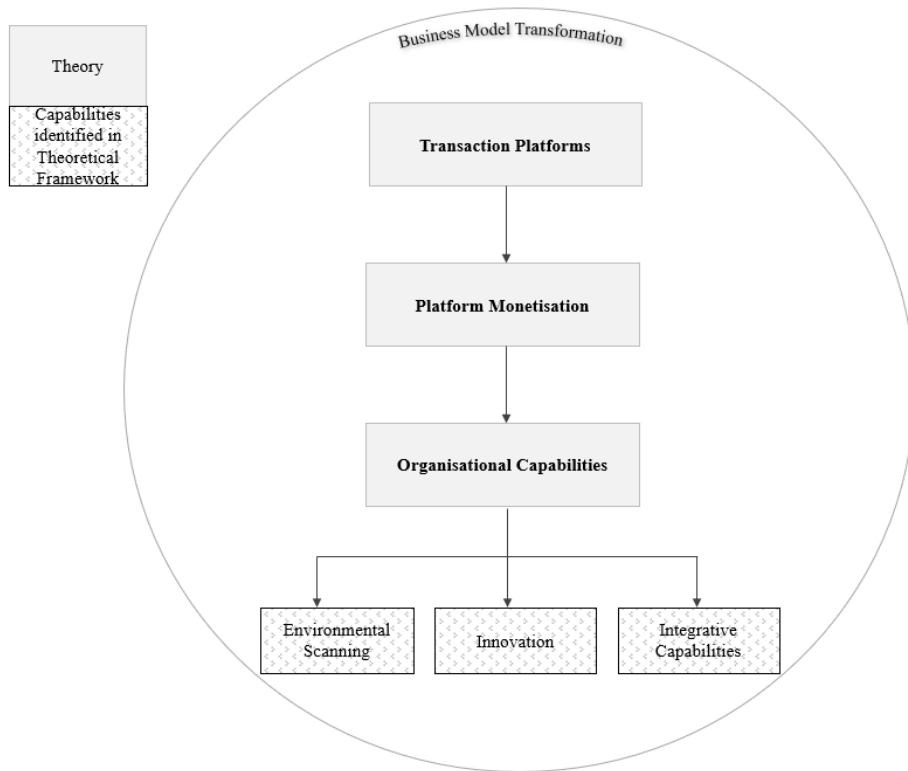


Figure 1: Theoretical Framework

3. Methodology

This chapter presents the methodological considerations of this study. The research approach and design will be elaborated upon along with other methodological choices in order to answer the research question. The aspect of quality, processing of data collection, and data analysis are also presented in the chapter.

3.1 Research Design

As this study aspires to explore and enhance the understanding of what organisational capabilities are needed when introducing platform monetisation to the business model, a qualitative research design is applied as Creswell and Creswell (2017) and Bryman & Bell (2017) deem this approach as appropriate when analysing text and opinions rather than numbers. Furthermore, this method will help the authors understand and explore situations within the case company and gain a broader understanding of the challenges and potentials of digital transaction platforms in terms of monetisation. Since the field of organisational capabilities needed for platform monetisation lacks research coverage, a qualitative approach is the most adequate to answer the research question (Morse, 1991). Creswell and Creswell (2017) also point out, a qualitative research design is the most appropriate when the research question requires an explorative approach.

Following the qualitative research approach and the relationship between research and theory, an abductive reasoning has been applied where the building of knowledge rests on the unexpected findings made through the collection of empirical data (Bryman & Bell, 2017). Initially, a theoretical frame was created which during the course of the empirical collection has been amended and gradually extended. Hence this resulted in an iterative work between literature collection and empirical gathering.

3.1.1 Theoretical Foundation

The theoretical framework in this thesis has been gathered mainly from various scholarly databases consisting of academic articles, reports and books. The main databases used were Business Source Complete, LUBSearch, Google Scholar and Scopus. Initially, the key words in the study were identified and searched for in different combinations. Below is an example of a search: profit* OR moneti* OR capitali* OR "value capture" OR "pricing strategy", Digital platform*, MedTech OR healthcare OR "health care" OR medical. Many relevant articles, journals, books and other literature was identified which in turn also led to additional material through a snowball effect. At a certain point the authors assumed that most of the relevant material had been identified as the same literature was reoccurring in the searches. The relevant sources were added into a google sheet containing key data of the publication as well as key takeaways to potentially be used in the thesis. Later in the process, the referencing program EndNote 20 was introduced to keep a comprehensive overview of the collected literature.

3.1.2 Single Case Study

A single-case study was chosen for this thesis as a part of the research design. This case type was selected firstly because of the authors intent to conduct an in-depth study of a specific digital transaction platform. A single-case study enables a richer understanding of the studied phenomena, in this case how certain organisational capabilities are needed when introducing monetisation on a digital transaction platform (Yin, 2009; Gustafsson, 2017). Secondly, this case type was chosen due to the scope of the thesis since a multiple-case study would not have been able to provide the same level of deep insights considering the time constraint. Lastly, a dominant factor for choosing a single case has been due to the representativeness of the researched topic (Yin, 2009) i.e. the authors had the opportunity to explore an organisational situation in-depth which presumably other companies within the MedTech industry are facing too.

3.1.3 Research Object

The case company in this study has been anonymised and is referred to as HealthCareZ. HealthCareZ is a European medical technology (MedTech) company that develops and distributes healthcare solutions including hard- and software products with the hardware

products building the core business. The company acts globally and is a large actor in the industry. The case company was chosen with a purposeful selection (Cresswell & Cresswell, 2018) due to its appropriateness in regard to the researched topic and question in this paper.

HealthCareZ has recently launched a digital transaction platform which name has also been anonymised and is therefore called PlatformZ. The platform was launched in the beginning of 2022 and is currently still in a first version. The purpose of PlatformZ is to connect HealthCareZ's hardware users (which are medical professionals) with the users' suppliers (which are laboratories and manufacturers). PlatformZ is currently free to use for both users and suppliers. The aim of PlatformZ is, like any transaction platform, to facilitate connections and communication and hence transactions of goods and services between the users and the suppliers. More specifically this means that the platform facilitates the communication and patient data exchange digitally between user and supplier and offers healthcare professional access to various laboratories and manufactures which can be found via an app store. The suppliers access the platform by registering and creating a profile that will be displayed in the platform app store. The users on the other hand get access to PlatformZ by purchasing hardware from HealthCareZ and pay an annual subscription fee. The fact that HealthCareZ recently launched a platform makes the research object suitable for the question in this thesis. Due to the recent launch of the platform, the firm is situated in a position where a strategic repositioning is considered including potential changes to the business model and monetisation. The MedTech industry furthermore poses an interesting research opportunity due to characteristics of the industry known for being heavily regulated, which will be presented in more detail in chapter 4.1.

3.2 Data Collection Method

This section will in detail outline how the empirical data was collected throughout the study. Both primary and secondary data has been used to get a deep insight to the researched topic.

3.2.1 Primary Data

Semi-structured interviews have been the main means of data collection in the thesis as this allows for spontaneity and a rich material (Bryman & Bell, 2017). This led to that the

interviewees could respond unimpededly, and unexpected, interesting areas of interest could arise. This was viewed as a crucial aspect since the authors wanted to capture the varying knowledge of the interviewees in their various roles in the company. An initial interview guide was created after studying relevant literature on the researched topic to have a building structure to work from. This guide was grouped into various themes namely *platform, value creation and monetisation* to cover all relevant fields during the interviews. The interview guide assured open and non-leading questions to give the respondents a chance to express their view on the matters without contextual bias. Throughout the interviews, questions have been adjusted and occasionally replaced when the authors noticed that remarkably similar answers occurred repeatedly. This has, according to the authors led to and enriched empirical material. The questions were also slightly adjusted depending on the formal role of the interviewee. See appendix A for a full list of questions overgone on the various interviews.

12 interviews have been conducted, including three pilot interviews that initially were held to define the research area and question. In every interview, audio recording permission has been asked for and granted. Interviews with both the case company and with the suppliers mentioned in this case have been conducted. The interviews have mainly been conducted at HealthCareZ's head office and had a duration of approx. 30-60 minutes. However, three interviews have been conducted in an online setting in Microsoft Teams due to practical reasons and time constraints of the respondents. After these 12 interviews the authors experienced a saturation as new perspectives or answers seldomly occurred. The respondents and their roles are listed below in a table for overview.

Interviewee	Formal role	No. of interviews	Duration (min)
A	Senior Product Manager	1	52
B	Senior Product Manager	3	25, 37, 50
C	Marketing Manager	1	44
D	Senior Project Manager	1	40
E	Director of Strategy and Consulting	2	30, 25
F	Senior Vice President, Strategy	1	39
G	Senior Vice President, Customer Success	1	35
H	Medical Clinic Representative (external perspective - user)	1	36
I	Laboratory Professional (external perspective - supplier)	1	21

Table 2. Overview of interview respondents.

As mentioned, the case company and the respondents were chosen with a purposeful selection (Cresswell & Cresswell, 2018). Furthermore, the specific respondents were selected due to their specific knowledge of PlatformZ, and because of their strategic role within the company. One of the authors have a close connection to the case company and therefore special measures have been taken to avoid bias. The authors have jointly been aware of the risk for bias and actively tried to eliminate these by being aware of various types of cognitive bias such as confirmation bias to stay objective in the interviews and avoiding common-information bias by encouraging new areas of exploration within the topic the authors believe the risk of bias in this thesis has been minimised.

Initially the respondents were contacted through email and asked to participate in the study. An NDA (non-disclosure agreement) has been signed by the authors as a means of keeping critical pieces of company information confidential during the process of the study. For ethical considerations as described in Bryman & Bell (2017) the respondents have been anonymised and informed of their right to anytime withdraw from the study. These measures were taken as a means of ensuring company confidentiality, to establish trust between the respondents and authors and to guarantee the respondents ability to express information about PlatformZ, their perception, and strategies in the company freely which is recommended by Cresswell &

Cresswell (2018). To include the perspective of the suppliers (labs and other manufacturers) that are using PlatformZ, two interviews have been held with external suppliers to retrieve their perception and view of PlatformZ's usefulness and value. These respondents have been asked slightly different questions since monetisation within this industry is a sensitive matter. The suppliers have instead been asked about various aspects of value creation including their perception on how the platform brings value or could potentially improve.

3.2.2 Secondary Data

To include the perspective of the users i.e., the medical professionals into the study, a large set of secondary data has been provided by the case company. Some of the data provided has been collected by an external agency hired by HealthCareZ. This can be deemed advantageous as the material is assumed to contain less bias than if were collected by the case company. The data was collected in the end of 2019 and consist of two studies including 15 video interviews with users of HealthCareZ hard- and software products. The aim of the first study was to explore the customer journey including what works well, which activities most often lead to errors, which parts of the workflow they wish to simplify, and the second study elaborated on the use and value of a digital platform. The authors deem this material extremely valuable since the collection of the same amount and quality of data would not have been possible given the scope of this thesis. Considerations here include the difficulties in obtaining access to interviewing users and the sensitivity of examining monetisation in this industry. In addition to the user interviews, the study is based on additional secondary data such as market surveys from 2022 as well as business cases and slide decks built around PlatformZ.

3.3 Data Analysis

The audio recordings from the interviews have been processed and transcribed in an online software named Trint. Afterwards, the transcriptions have been processed manually and corrected by the authors to ensure an appropriate transcript with as few errors as possible as suggested by among others Bryman & Bell (2017). The data analysis has then been processed in accordance with the steps presented by Rennstam and Wästerfors (2015) namely sorting, reducing, and arguing to present the conduction of this study with as much detail as possible.

3.3.1 Sort

Sorting the empirical material is the first step in the process of qualitative data crafting suggested by Rennstam and Wästerfors (2015). The large data set resulting from the transcription at first seemed unstructured and overwhelming as the transcriptions jointly consisted of approximately 170 pages. The authors have after this spent a significant amount of time on familiarisation to get to know the material better. This was done in the data processing software NVivo. The program helped identifying reoccurring patterns in the data and the authors manually divided data into categories and highlighted quotes (called references in the program, see Figure 2 below). This was made to keep the work with sorting manageable and structured hence avoiding that valuable data is overlooked. The data set has multiple times been read, discussed, and interpreted from varying angles as advised by Rennstam and Wästerfors (2015). This has been a time consuming yet necessary working process. Coding softwares such as NVivo has however been criticised for potentially fragmenting data which may lead to the narrative tone in the material is lost (Weaver and Atkinson 1994 in Bryman & Bell, 2017). Additionally, it is claimed that computer aided coding can lead to de-contextualisation of the data (Weaver and Atkinson 1994 in Bryman & Bell, 2017). This is however not believed to be an issue in the paper since both authors has participated in all interviews and jointly listened to all the recordings, corrected the transcripts, and discussed points of uncertainty with the respondents to fully understand the context.

Through the program, interesting quotes were grouped back and forth to discuss multiple interpretations of the material. Quotes that were found particularly illustrative were extracted from the set and looked at separately for further interpretation. In the cases of reoccurring topics, the authors started to notice patterns in the data. At times, exact interpretation was challenging due to the amount of time passed since the interview and the way respondents naturally talk in a much different way from writing. Listening to the recordings again helped the authors overcome these obstacles. Quotes that seemed to go against the general line of thought were also examined closer, some of which will be highlighted in the result section. Additionally, there has been an awareness of the two authors interpreting the data differently, which is handled below in the chapter about quality. The sorting of the material has been reflected by the practical relevance of the thesis namely to intend to reduce uncertainty regarding organisational capabilities and transaction platform monetisation. After processing the data, the authors identified three interesting themes which will be presented in chapter four.

Name	Files	References
Monetisation	2	23
Organisational capability	0	0
Agility, change	1	1
Customer-centricity (u...	2	15
Leadership	1	2
Mindset	2	5
Organisational culture	1	2
Quality, governance	1	1
Technology	2	9
Platforms in MedTech	1	2
Strategy	2	10
Value creation	2	12

Name	Files	References
Monetisation	3	24
Organisational Capabilities	0	0
Branding	2	3
Customer Centricity	3	16
Leadership	2	3
Mind-set	2	7
Organisational Culture	1	2
Relationships	2	3
Technology	2	8
Platforms in MedTech	1	2
Strategy	3	19
Value creation	3	24

Figure 2: Print screen of software coding program NVivo

3.3.2 Reduce

The reduction process has aimed to include the most vital parts to fulfil the purpose of the thesis as well as answer the research question about organisational capabilities required for the monetisation of transaction platforms. For obvious reasons not all aspects captured in the empirical material could be analysed and discussed (Rennstam & Wästerfors, 2015). The main goal with the study has been to reflect an objective view of the role of organisational capabilities in platform monetisation at the same time as a big reduction of the material has been made. The challenges have consisted mainly of keeping the richness of the material while making the data set more manageable. The steps of *sorting* and *reducing* have been proceeded in an iterative manner, during which categories and quotes have changed during the process. The focus in the thesis has been to highlight findings that truly underpin and illustrate the purpose and question of the study. Additionally quotes of interest, such as contradictory ones or in other ways noteworthy ones are presented. Furthermore, the choice of quotes has been based on relevance to exemplify and justify the result later presented in this thesis. During this section of the data analysis the result of the study has been successively apparent and advanced from being a data set that was large and straggling to manageable and comprehensible.

3.3.3 Argue

The third and last step in the data analysis in accordance with Rennstam and Wästerfors (2015) is *argue*. The process of argumentation in this thesis is supported by relevant quotes from the

empirical material as a means to clearly highlight the contribution of this thesis. The step of *arguing* has been present for the authors throughout the process and the aim is to enable the reader to understand how the empirical material contributes to the readers' understanding of what organisational capabilities are needed to monetise a digital transaction platform. Uninterruptedly, the argumentation of the empirical analysis aims to answer the posed research question. The main arguments are made through the three identified themes. The quotes have been carefully selected to describe how the identified organisational capabilities are vital as well as what suitable option for monetisation are viable. Lastly, quotes from all participating respondents have been included in order to give the best possible reflection in the argument.

3.4 Quality Evaluation

To assess and ensure the validity and reliability, the criteria of Lincoln & Guba (1985, in Bryman & Bell, 2017) has been used since their assessment criteria have been adjusted to fit qualitative research. The authors suggest two fundamental criteria for assessing a qualitative study which are authenticity and trustworthiness. The authenticity refers to whether the study is legitimate and if the genuine thoughts and opinions of the respondents have been reflected in the result. The trustworthiness is further divided into four sections of assessment. These are credibility, similar to internal validity meaning that the researchers are in agreement of how the empirical data should be interpreted. The second one is transferability referring to which extent the result of the study is generalisable to other social situations and environments. Dependability is the third assessment criteria in which the possibilities of replication of the study is measured. Often qualitative studies are hard to replicate because of unique social constructions and the natural subjectiveness of the research design (Bryman & Bell, 2017). The last criteria is the confirmability which intends to measure the objectivity of the researchers and potential bias in the study (Lincoln & Guba, 1985). Below is a table outlining the steps to assure authenticity and trustworthiness in this study:

Trustworthiness	Authenticity	<ul style="list-style-type: none"> • Interviews audio recorded and transcribed. • Points of uncertainty discussed with respondents during interview. • Respondent validation. • Researchers are aware of potential biases and actively assured if conduction and evaluation of research is being influenced.
	Credibility	<ul style="list-style-type: none"> • Discussions between the authors were held when uncertainties arose. • Topics of ambiguity confirmed with respondents when necessary. • Coding and interpretation were conducted jointly by the authors. • Different perspectives were taken into consideration since empirical data based on internal and external as well as secondary data.
	Transferability	<ul style="list-style-type: none"> • Detailed description of study is outlined as well as research object. • Setting and unique characteristics of the industry is described (Ch. 4.1).
	Dependability	<ul style="list-style-type: none"> • A replication of this study could be made; however, the result may differ due to the unique social construction of the specific case. • Clear presentation of data collection and interpreting methods. • Reasoning of research design presented. • Research conducted structured and consistently.
	Confirmability	<ul style="list-style-type: none"> • Awareness of potential bias has helped in reducing error from bias. • Researchers have refrained from asking leading questions in data collection. • Secondary data was collected by an external agency, which is assumed to reduce bias.

Table 3. Authors elaboration of actions taken to assure thesis authenticity and trustworthiness

3.5 Chapter Summary

This methodological chapter stated the chosen research design of this thesis entailing logical reasoning as to why a qualitative method, with a single-case approach and semi structured interviews have been conducted. It has described the sample of respondents and how they were chosen. Lastly, it has outlined how the collected empirical data has been analysed as well as how the quality of the study will be guaranteed.

4. Result and Analysis

This chapter presents the findings and analysis derived from the empirical data. Three overarching themes have been identified as central throughout the data analysis and were apparent during the interpretation process. These themes are all related to PlatformZ and the potential challenges HealthCareZ faces during a business model transformation and monetisation considerations. The themes jointly indicate that certain capabilities need to be obtained in order to achieve the business model transformation towards monetising on PlatformZ. The first theme is *understanding platform value-enablers* where the data indicates that certain enablers are needed within the organisation to create and capture value from the platform. The second theme being *understanding platform value creation* entailing the perspectives of how both suppliers and users and HealthCareZ's perceives value creation on the platform. The third and last theme is *understanding platform value capture* comprising aspects of how the value can be captured and which monetisation strategy would be most appropriate.

As outlined in chapter three company names, the name of the platform, and interviewees have been anonymised and are therefore changed in the quotes. Before presenting the findings, a short background of the MedTech industry and its specific characteristics is outlined to add understanding of the context of the findings. Finally, it is worth highlighting that the aspect of technological functionality of digital transaction platforms has been addressed various times in the empirical data however the authors deem this as a fundamental prerequisite and hence organisational capabilities addressing platform IT and development have been excluded from this analysis.

4.1. Setting: The MedTech Industry

Since the setting of the empirical study of this thesis is built around a case company belonging to the MedTech (medical technology) industry the authors deem it relevant to outline the key characteristics of this industry in order to put the findings into perspective. The specific field within the industry will not be revealed to ensure the chosen case remains anonymous. This is not considered to be problematic since workflows within the MedTech industries are similar

and digital platforms can be used by different types of general practitioners and healthcare specialists.

Before presenting the key characteristics, a brief definition of the MedTech industry is made. According to Donzé (2022) firms within the MedTech industry have such a wide range of products covering different fields within healthcare (surgical, medical, and dental instruments and supplies), that its definition differs between scholars. For this thesis, the definition by MedTech Europe, the European trade association representing the medical technology industry is deemed appropriate. The institution defines the industry as follow: “*Medical technology encompasses a wide range of health care products used to diagnose, monitor, or treat the diseases and other conditions known to affect humans*” (MedTech Europe, 2022). Within the last years the industry grew steady. In 2020, the Medical Technology market generated a total revenue of \$447 billion US dollars worldwide (Statista, 2021).

Even though numbers indicate that overall, the sales of medical devices sales will increase by 4.5% until 2026 (Statista, 2021) the MedTech industry is complex which makes decision making and innovation processes challenging (Raynor & Ahmed, 2013; Donzé, 2022). Donzé (2022) brings forward one of the reasons by suggesting that the diversity of actors is represented by large multinational enterprises that dominate the market but also numerous MedTech newcomers and SME’s that are attracted by the high-margin, high-growth-potential of the industry. Raynor & Ahmed (2013) point out that not only the competitive landscape but also the consumer behaviour and their buying process of medical devices and equipment is radically changing which is a factor that the industry needs to take into consideration. In the past, private practice owners were the primary decision maker when investing in MedTech products, while today more physicians are being employed by healthcare systems which are involved in business decisions around the clinics. This means that the decision-making power has been shifted and buying criteria might differ (Raynor & Ahmed, 2013).

Another characteristic that defines the MedTech industry is the heavy regulation of healthcare in general (Raynor & Ahmed, 2013; Donzé, 2022) Various legal frameworks and directives exist varying from country to country (Estrin, 1990; Teixeira, 2019). Due to a lack of international standards, firms must apply for certification in foreign markets which can be challenging especially for SME’s due to a lack of resources (Heiss, 2017).

The challenging aspect of a heavily regulated MedTech industry also appeared in the empirical data of this study. Both Marketing Manager C and Laboratory Professional I address the challenges HealthCareZ faces. Marketing Manager C outlines:

“Getting all countries around the world to get approval from legal and regulatory point of view on how you kind of manage those funds and back and forth. I think it's overwhelming”

- Marketing Manager C

Finally, scholars such as Hermes, Riasanow, Clemons, Böhm, & Krcmar (2020) outline that often there is a resistance against the adoption of technologies in healthcare. Here, various reasons have been identified such as the fact that physicians see tasks aside from patient treatment as administrative inconveniences (Fichman, Kohli & Krishnan, 2011). Other examples being privacy concerns in case medical devices are being hacked (Meskó et al., 2017), the lack of app privacy policies (Sunyaev, Dehling, Taylor & Mandl, 2015), and finally some physicians see technology as a threat to their professional autonomy (Walter & Lopez, 2008). Success requires now, more than ever a clear and consistent focus on delivering differentiated value and performance to customers. The pressure for healthcare providing medical professionals with differentiated clinical and economic value is increasing (Snyder, Abdullah, Faruk, Lefferts & Michael, 2013).

4.2 Understanding Platform Value-Enablers

Parts of the empirical material indicate that the organisation requires certain capabilities for being able to both create and capture the value generated by the platform. Therefore, this chapter will present and analyse these capabilities to add to the understanding. This first theme displays several abilities and organisational characteristics that have been elaborated upon by the respondents. They are collectively referred to as organisational enablers and perceived to be needed to transform the business model and create and capture the value. These include capabilities to innovate and have a specific company mindset. Further, capabilities within leadership and varying aspects of leadership are highlighted by several of the respondents when talking about PlatformZ. From the following quote by the Senior Project Manager D this becomes apparent:

“I would also say a culture of innovation and entrepreneurship is important. And I would also say just a company DNA and culture that you can challenge status quo because I think some people in the organisation would argue we should not let us get distracted too much by this [platform]”

- Senior Project Manager D.

His quote can be interpreted as an organisational desire to welcome and implement new ideas, especially emergent technologies that can disrupt the company. Furthermore, his expression can contain several aspects such as being adaptive, not being afraid to fail, feedback-seeking, courageous and problem-solving. The reference to entrepreneurship can further be understood as a wish to have short decision paths, less bureaucracy, and rapidly seize and try out new ideas on PlatformZ. Moreover, a desire to be able to challenge status quo could indicate an aspiration for an open workplace where the organisation and its business model is transformed with time. The last part of the quote can be understood as a consequence of the opposite of what is first mentioned i.e., the organisation getting caught up in old habits and stop innovating. He continues by adding that HealthCareZ seems to be already performing well on this matter compared to other companies he has come across in a previous job:

“What I see is a relatively open mindset to change. Also, having been in management consulting for many years, I have seen old, dusty industrial companies where it's like if you present a new idea, people will immediately shoot it down.”

- Senior Project Manager D.

The latter part of the quote indicates how organisations can get caught up in old habits, neglecting innovation and hence end up with old practices and ideas over time. That is thought to be a closed culture towards change, opposite to what the Senior Project Manager describes. Another colleague adds to this understanding by saying:

“The one thing [...] is the agility to move on the sort of requirements or the changes in the markets or new technologies we bought in, so that agility and that ability to adapt to changes. I think that's the most critical.”

- Senior Product Manager B.

The Senior Product Manager B highlights agility as a crucial ability meaning that an organisation can act on new business opportunities quickly and easily, to reap the benefits of the new market or technology. Someone who has another view on this, or rather sees more potential for innovation and change at HealthCareZ is the Senior Vice President G who points out:

“Sometimes people have, like a “middle aged men in [anonymised location] mindset”, and then people see guys in their twenties with provoking thoughts... And so, we... merely need to be sure that we think things through, and also [a] willing to take a risk. You also need to take a risk to... Yeah, to succeed.”

- Senior Vice President G.

As he expresses, an urge to stay open minded, and not get caught up in traditional habits of working is displayed in alignment with what the Senior Project Manager H expresses. “Mindset” is also an appearing capability which in his expression seems to be closely coupled with open culture and an innovative culture as previously mentioned by other interviewees. The last part of the quote regarding risk-taking can be interpreted as a need to innovate, meaning that an organisation must spend resources on investigating potential business in new endeavours even though it has not yet proven to be profitable. This is furthermore highlighted when the Senior Project Manager D exemplifies why innovating for the future must be prioritised:

“You need to have a long-term perspective [...] you see these CEOs struggling to make the next quarter. So why should you invest a lot of money today for something that might 10 years down the road be a good idea?”

- Senior Project Manager D

In this quote the CEO, which belongs to the leadership team is mentioned and the importance of them to prioritise resources for innovation. The “need to have a long-term perspective” can also be viewed as a trust-building mechanism in which leaders show employees that they are on a joint mission with a rigid goal and a resilience toward reaching organisational goals. According to the next quote, management is not only expressed to be of importance for prioritising innovation but are also key when it comes to onboarding various stakeholders on a joint mission towards an organisational goal:

“A senior leadership team... they have a lot of things on the agenda, but they need to put this on the top of their agenda as this cannot just be a cool project in the background for R&D.”

- Senior Project Manager D

This statement indicates that the leadership team is signalling their organisational ambitions to the rest of the organisation through their actions. By putting innovation and thus PlatformZ at the top of their priorities they are signalling its importance. When Senior Project Manager D expresses the need for it to be on top of the agenda it can also be argued that he is implying that the consequences of not prioritising the innovation efforts, could be a potential risk for failure of PlatformZ. Hence the leaders seem to have an important role in signalling where to direct the efforts and thus enrol the organisation on a joint idea of direction. This is further underpinned by another Senior Product Manager:

“Of course, getting like a good anchor alignment across different functions in a company is, of course the key [...] Because if you don't have that [...] then I don't think people will understand how this is a part in a bigger strategy to achieve whatever business goals we have or whatever desired experience we want to provide”

- Senior Product Manager A.

Examining the quotes presented above, a few topics have been elaborated upon. Capabilities to detect emerging trends and stay innovative to update the platform as well as having a beneficial mindset open for challenges and not afraid to fail. Moreover, leadership was elaborated upon showing that the direction and priorities of the organisation is defined are crafted here and lastly that they can be assumed to participate in creating a beneficial workplace where feedback is encouraged, there is trust between management and employees and the managers priorities signals and thus direct employees to reach organisational goals.

4.3 Understanding Platform Value Creation

Understanding how digital transaction platforms create value and how this is perceived by the actors engaging on it, in this case the users and the suppliers, is fundamental to attract and retain the two sides of the platform. This chapter presents the pain points and needs of suppliers

and users and how they believe their demands are being addressed by the platform. This can be viewed vital for understanding what organisational capabilities that will be important to have in house. The perspective of the suppliers is based on two interviews with a laboratory professional and a clinic representative, the user perspective is based on secondary data presented in chapter 3.2.2 as well as an interview with a clinic representative. In addition, the analysis sheds light on how HealthCareZ perceives the value created and how PlatformZ is built to address the identified pain point.

4.3.1 Value Creation – Supplier Perspective

This chapter presents and analyses the data representing one side of the platform, namely the suppliers, i.e., the laboratories and manufacturers. The empirical data is based on interviews with two different experts within the field, where one of the interviewees is a clinic representative (that acts both as user and supplier by working in a clinic that also has a small inhouse laboratory) as well as a laboratory professional owning a bigger lab and has been using HealthCareZ's platform as one of the first users. The two contribute with their thoughts by highlighting how PlatformZ brings value to their overall business but also shed light on shortcomings and improvements PlatformZ should consider in order to deliver value to the supplier side. The chapter ends with the respondent's reflection of the difficulties operating within the MedTech industry, due to industry characteristics and how they impact the adoption of digital platforms.

When asking how PlatformZ addresses the pain points for suppliers, Laboratory Professional I bring forward that the digital transaction platform eases the communication between the labs and medical professionals:

“What they're [HealthCareZ] trying to address and what they're trying to do is to respond to customer pain points, which is a lack of integration. There's also a lack of ease of communication right now as a platform, I think [PlatformZ] does a pretty good job on communication”

- Laboratory Professional I

The quote brings forward the lack of integration and compatibility between the different tools such as digital healthcare equipment and other brands that are being used. The respondent also highlights that the seamless communication between the different parties seems to be a pain point in the day-to-day workflow of the lab. The quote further indicates that PlatformZ addresses the challenge of communication to a satisfactory level, even though the platform has not been long on the market. Another pain point that appears to be a burden on the lab professionals is to handle all the data they receive through the different platforms. Laboratory Professional I address this issue:

“So, a pain point for us is collecting all this data and having to do all that administrative work and then having to, you know, finally organise it and maintain it all ourselves when really it never has been a job description for [us]. So, it's a complete shift in the way that we can do this.”

- Laboratory Professional I

Here the interviewee refers to the fact that the supplier often is required to use different platforms since their customers, the medical professionals are working with different medical devices that come with different platforms. Since competing platforms have different interfaces and usually cannot be connected the supplier often deal with various platforms at once. Laboratory Professional I exemplify this:

“So, you have to imagine you have 25 or 30 different kinds of [medical devices] and 25 or 30 different portals that you need to log into. And no way to really align that.

- Laboratory Professional I

As addressed in the quote, the pain point of lacking compatibility is something that persists. Moreover, the quote indicates that this pain point will be hard to address. The reason for that is assumed to be that it's unlikely that PlatformZ would open up to allow compatibility with competitive hardware as the risk of losing customers is too high.

Another aspect that has been identified as relevant is that HealthCareZ should be aware of the fact that price has been mentioned when asking Laboratory Professional I about potential entry barriers:

“Another thing of course, is that the platform essentially has to be free, if there's any costs associated with it, it's almost a very hard ask today, right? Because you have so many platforms, you have so many [medical devices] and all of them have their portals”

- Laboratory Professional I

This is also addressed by Clinic representative H. He explains how he's using PlatformZ as it is free, but on the question if he values it high enough to pay for the service he responds: *“Would I pay for platform additional to equipment that I would buy...? [...] No.”* (Clinic representative H). As the quotes indicate, the suppliers seem to be price sensitive and would not appreciate if the platform starts charging fees. On a more positive note, Laboratory Professional I highlight the future potential of getting new connections through the platform which will generate additional value:

“But as the platform matures, as they introduce, you know, featured content, reviews, you know, like comments, the ability to, to use kind of the same feature that you see in an app store or like a traditional app store that will enable the commoditisation on the platform.”

- Laboratory Professional I

This quote indicates that the supplier would benefit from a rating functionality that gives medical professionals the opportunity to rate their trusted partners to help others that seek a new supplier on the platform. This is something Clinic Representative H is not so sure about as he thinks medical professionals would hesitate to find completely new partners on a platform:

“I would at least talk to one, two or three different colleagues about this lab. And if they would refer it, have they heard that good or bad, I wouldn't just randomly find a guy on the platform and say, that's probably this guy.”

Another finding the authors deem relevant to present in this chapter refers to the industry characteristics presented in chapter 4.1. Laboratory Professional I bring forward one of the challenges presented, namely the aspect of a heavy regulated industry:

“The problem with like medical, especially medical devices, there's a lot of regulatory hoops that they [healthcare professionals and laboratories] have to jump through. So, they have to have, secure logins every time. So, there's a lot of friction from one step to the next [...] And it's kind of hard for them to remove these barriers because they have to be compliant”

- Laboratory Professional I

In this quote the Lab Professional addresses that the challenges of the heavily regulated industry are apparent in the supplier's day-to-day business. He mentions that for example the platform cannot just easily be accessed since security logins are required. He continues by presenting another aspect that seems to be crucial when trying to understand the customers of a digital platform within the MedTech industry.

“A lot of business is still done the old-fashioned way. You pick up the phone relationship, referral business. I think that will change in the the coming decade or so with more younger people who are used to these apps and things like that”

- Laboratory Professional I

Reflecting on this quote it can be assumed that overall, the digitalisation of the MedTech industry, is moderate and penetration of digital workflows are rather low. Furthermore, he indicates that the matchmaking function of PlatformZ will become more valuable with time as a younger generation who are used to a digital environment comes along. Laboratory Professional I further build on his argument and points out that platforms already do a good job but often the users itself, in this case the medical professionals are not tech savvy enough:

“The majority of the generation of people right now who are like the decision makers, [Medical Professionals] who are using the platforms are, you know, a little bit older. Right. So, they're not used to using apps and phones.”

- Laboratory Professional I

As the quotes presents, understanding the suppliers needs seems to be required to address their pain points. Overall, it seems that workflows can be eased through a digital transaction

platform. In addition, this calls on the importance for HealthCareZ to understand the characteristics and trends of the industry as a whole to address the needs.

4.3.2 Value Creation – User Perspective

After gaining insights to one of PlatformZ’s two sides, namely the suppliers, the study continues by presenting and analysing data collected from the opposing side, the user. Here pain points and needs of the medical professionals are outlined. This section is to the majority based on secondary data, as described in chapter 3.2.2. Additionally, comments from one interview with the Clinic Representative (that is both a medical professional and has a small-scale inhouse lab) is elaborated upon.

When analysing the data, it becomes apparent that the medical professionals expect digital platforms to address the main pain points they face in the day-to-day business which is the wasted time from incompatible equipment and slow communication with suppliers. Ideally, they would like the platform to solve compatibility issues of different systems that are currently not working together. The following quote indicates what is outlined above: *“It'd be nice to just have everything in one program, so I don't have to have a bunch of different programs open.”* (Secondary data, user video interview). This statement supports that medical professionals would like a solution where the different programs they use are integrated into one platform. By analysing the data it seems apparent that the respondents expect an integrated platform to support all available programs. Four out of six respondents believe that an integrated platform should support all the programs from different types of healthcare manufactures to allow for a seamless workflow. Another demand characteristic that has been identified as relevant is that in order for the platform to improve workflows, the medical professionals would like all patient data information to be stored on the platform:

“Most PMS [Practice Management Systems] have patient demographics, insurance, prescriptions, [...], if there's a way that you could integrate [additional data we collect] into there [the platform] that'd be cool. [...] Directly from your PMS.”

- Secondary data, user video interview

In this quote the respondent expresses the need for platforms within the industry to store all patient data such as patients' details, imaging, and financials in one place. The data reveals that

all respondents welcome an integrated platform that includes several information for each patient. They believe such features would be most beneficial to their workflow. By further analysing the empirical data it seems that medical professionals believe that communication with their peers could be very beneficial:

“That'd be very helpful [...] a way for me to communicate with the other providers to read them on what the patient needs and what I want to be done and also, I think it's nice [to get] advice from another colleague.”

- Secondary data, user video interview

The outlined quote shows that connecting to peers and providers is appealing for the platform users to seek advice about complex medial cases and share the relevant data. In addition, the secondary data has shown that the medical professionals would value a function where communication with suppliers such as manufactures, or laboratories was handled through the platform. Finally, it became apparent that the medical professionals would like to implement a platform if it improves the overall patient case workflow and productivity. The medical professionals would like to use the platform if it provides a smooth integration across equipment's, if does not have a steep learning curve, and if it is easy to use. To the question if using a platform would improve the overall workflow and productivity the respondent answered the following:

“Yes, if it addresses the issues to cut down my workflow, integrate different technologies I'm using to make it fluid and fast. Cost is important but if it cuts down my time significantly, I don't mind paying more for that.”

- Secondary data, user video interview

This statement underlines what all the respondents of the user study confirm. A platform creates true value if it improves the workflow and productivity while being user friendly and intuitive to use. Another aspect that is mentioned is the cost. Cost seems to impact the decision of medical professionals but could make less of an impact if a strong value was delivered. In relation to cost, the authors deem it relevant to add insights from another secondary data source. Namely, HealthCareZ's annual brand and market survey. This report outlines that one of the main reasons for not investing into digital equipment in general are costs. 42% out of the 1.996 medical professionals stated that price is the main barrier for not investing into digital

technologies such as a platform. 27% state that current workflows are efficient enough and the same number of respondents argued that their clinic is not big enough to accommodate digital workflows. Since digital platforms in the MedTech industry often come as a complementary offering to the medical equipment (hardware) which is also the case for HealthCareZ, it is worth highlighting that engaging on the platform is often only possible if the medical professional possesses digital equipment. Smaller clinics, more traditional medical professional can often not afford digitalising their workflow or simply have no interest as outlined previously.

To further share the view on value creation of the medical professionals, a Clinic Representative has as mentioned been interviewed. When asking Clinic Representative H about what minimum value needs to be delivered by the digital platform in order for it to appeal to him, he addresses that the key is to digitalise manual processes: *“to me, it's like an old [paper] order sheet [...] I need that to be digitalised.”* Clinic representative H brings forward one area of improvement around the usage of the platform. He would like to see the platform being more intuitive amongst other improvements:

“I had [a] platform before. It was just not set up the same way. I had more options on connecting to my peers, which I don't have today within the platform, which is a quite important feature that I'm missing.”

- Clinic Representative H

Reflecting on this quote the clinic representative expresses how he preferred the experience from a platform he previously used. It gave him more value, and he's highlighting how some of these value adding features should ideally be added also to PlatformZ. Now he is feeling confused and out of control when he is opening the platform which is illustrated by the following quote:

“First of all, I'm being presented with four different labs or whatever that... I have no clue on what to do with, and I have no intention on clicking on them. [...] Here it feels completely random [...] I don't feel that I'm in control here.”

- Clinic Representative H

The expressed concern points at shortcomings and he exemplifies how the platform could become more tailored to the individual needs of the user and hence provide more relevant content when browsing through PlatformZ. Clinic representative H continues by illustrating how PlatformZ can become more structured:

“Right now, if I'm using [PlatformZ] and I jump into one of my cases, it's randomised with different [media files] and then I have a picture, then I have a drawing and everything is like, it's more confusing than it is helpful.”

- Clinic Representative H

Furthermore, he highlights:

“There is some of the features within [PlatformZ] that I'm not using, and sometimes I'm getting a random update from that in the [brand name] app, for instance. And I have to spend time on something that I don't use. That's not a benefit for me at all.”

- Clinic Representative H

The last quote indicates how time saving tools are valued in the clinic and again how the platform could be more tailored to each user to save time. This section has presented both advantages and drawbacks of the perceived value of PlatformZ from the user's perspective.

4.3.3 Value Creation – Internal Perspective

The following chapter further builds on the theme of value creation, however this time with a focus on the internal respondents at HealthCareZ's perspective on how PlatformZ creates value for its different players. The analysis firstly outlines how the value creation is perceived and if this is coherent with the findings from the previous chapter 4.2.1 and 4.2.2. Secondly the need for network effects to be in place are being presented as well as the importance of maintaining a good relationship with the different partners on the platform.

Having analysed the responses on how PlatformZ delivers value to its customers, it can be assumed that the focus is to connect medical professionals with suppliers and create a seamless

experience for both sides of the platform. The following quote by the Senior Vice President F exemplifies this:

“So, the real key thing here first is to solve for the value that is there for the [medical professionals] and that is to bring connectivity, ease of use, a seamless experience”

- Senior Vice President F

This quote highlights that the platform creates value by facilitating the interactions between the different participants on the platform in a seamless manner. The seamlessness seems to play a crucial role since all of the respondents have addressed this criterion. Senior Product Manager A exemplifies this:

“Removing barriers both from, [...], whoever's operating on the platform or with the platform and then also making it easy for whoever should use the platform and basically removing those barriers to maximise synergies in this network effect.”

- Senior Product Manager A

Senior Vice President F further builds on his argument by addressing specifically the needs by the suppliers within the industry:

“Design the platform so that the suppliers can get the access they need, you know, make it really easy for them to offer the services to integrate well and to display their offering as well and make it seamless for them to interact with their users.”

- Senior Vice President F

This quote indicates that the management team of HealthCareZ, which is responsible for the platform understands the needs of the supplier since the need the platform aims to address has been presented as a pain point from Laboratory Professional I in chapter 4.2.1. Senior Vice President F, further builds on the argument by emphasising the matchmaking between the two sides of the platform:

“When the transaction has happened, you have made a successful connection of a buyer and the seller. And if you can make that successful connection, you have created value

for both parties. [...] The value proposition today is connected to digital dots, bringing these [...] digital tools [together], but they're all fragmented."

- Senior Vice President F

This quote addresses, what has been presented in the previous chapter 4.2.2. The medical professionals work with different tools from different providers since each brand is specialised within a different field. This fragmentation makes digital workflows complicated since the users are active on different platforms. HealthcareZ's platform aims to connect some of these digital dots, for a seamless workflow. By analysing the primary data, it is apparent that HealthCareZ's management team is aligned on the understanding around the common purpose of PlatformZ. Senior Product Manager A summarises what the other respondents have touched upon:

"Do we believe that we can improve on you could say the life for a number of stakeholders, including patients, doctors, but also the industry. Yes, we believe we can improve that across the kind of value chain by being smart about introducing a platform in the right way that can both unlock industry partners, bring new services to the right people, and it ultimately creates a better patient experience."

- Senior Product Manager A

Before being able to create value for the different participants on the platform, organisations need to bring users to the platform in order to attract each side and build network effects. This "chicken and egg" problem has been identified as relevant for PlatformZ as Senior Project Manager D outlines:

"It's always the chicken and the egg problem with the platform. You need enough users on the platform to attract suppliers and you only get users on there if the suppliers are there."

- Senior Project Manager D

Senior Project Manager D points out that in order to get the suppliers on the platform you need to attract the users first. Since HealthcareZ's platform can be accessed for free by the customers of the hardware solutions, HealthCareZ can only grow the user side by increasing sales of the

hardware. Both the Director of Strategy and Consulting E and Senior Vice President F depicts this situation:

“Ensure that you drive up penetration, so the market get more and more users and the platform. [...] And then that will naturally entice suppliers to stay on the platform because the switching costs for them would be to no longer offer their services to thousands and thousands of dentists”

- Director of Strategy and Consulting E

“And the most important thing is that you get customers in the store. So, no matter what it is, you need to convince users to buy [the hardware] so that they get on [PlatformZ].”

- Senior Vice President F

Marketing Manager C exemplifies how value is created by having new labs added to PlatformZ:

“We did work a lot in getting a thousand [labs] in [PlatformZ] before launch. [...] So, it was like a balance of like, you know, ‘when you have kind of enough mass for it to get value? [...] And if we didn't have the labs that had such an easy process to sign up, I think it would have been difficult.”

- Marketing Manager C

Marketing Manager C implies that the more labs they had on the platform before launch the more value it would bring. She also indicates that a certain number of actors on the platform is needed to provide sufficient value. Additionally, she addresses the perk of having a smooth sign-up process so that suppliers easily can register where it can be assumed that having a more troublesome process can lead to discouragement to sign up. HealthCareZ seems to be taking various measures to assure that they enable a capability to understand their customers appropriately, and they stress how the wishes of the customers should shape PlatformZ. That is shown in the following quotes:

“I would say from a strategic standpoint as well, you need to have the capabilities in your organisation to have a very clear view on what your customers’ needs are, that you're trying to address. [...] We are looking at the two sides of the coin understanding

what are their top needs. Luckily, there are some commonalities. So, both parties are interested in this seamless workflow.”

- Senior Project Manager D

The quote highlights the strong emphasis on understanding customer needs for the platform to bring value to them. Senior Project Manager D expresses this as a key aspect also from a strategic perspective meaning it's important in a long-term perspective to achieve the set organisational goals for PlatformZ. His expression also indicates that the company not only needs to understand what the partners need but also how to act on this. That is further exemplified by Senior Project Manager D:

”You need to understand the customer needs to make sure that from a technical perspective, we can tell the R&D guys, ‘Hey, you know, [PlatformZ] needs this and that because our customers really demand that”

- Senior Project Manager D

With his statement, Senior Project Manager D indicates that HealthCareZ is actively looking for areas to improve to continuously find new ways to satisfy its customer's needs. As PlatformZ is only in its early stages, a so called PlatformZ 1.0, continuous amendments are being made to its setup. Senior Product Manager B further explains the difficulties for the medical professional of needing multitude of different digital tools and how this would be eased if streamlined. The constant shifting between different digital tools and the transfer of data between these are identified as the biggest pain points for the medical professionals. HealthCareZ is making efforts to understand these issues and incorporates functions into PlatformZ to resolve these:

“In the clinic, you have 10 different platforms... right... So, what we are doing now is making case specific communication between the user and the lab here in [PlatformZ]. [...]. So, there's actually a chat function and there is a question functionality and there is sort of a status bar progress bar, meaning you can see how far progressed is the case. So, all this is now case centric instead of being text, phone, email.”

- Senior Product Manager B

As the quote suggest, by incorporating functions, the communication between the user and the lab are streamlined what however does not seem to be addressed is the challenge of depending on multiple platforms at the same time. As indicated by the quote and presented in chapter 4.2.2 the users often use multiple platforms from different providers. However, truly addressing this pain point seems to be impossible since different platform provider do not want to share or lose customers to competitive brands. The quote below from Senior Vice President F indicates this: *“PMS [Practice Management Systems] which are the core of every clinic are not consolidating. [...] And neither will other completive platforms”* (Senior Vice President F).

The above quotes about how the internal employees at HealthCareZ perceives value creation on PlatformZ outlined both what kind of value they think the users are interested in receiving from a digital platform, what kind of value the supplier expects and what shortcomings seem to be present today. Lastly it provided the perspective of how the respondents at HealthCareZ perceive the value, and the capabilities needed to monetise on the value of PlatformZ.

4.4 Understanding Platform Value Capture

After having solved the issue on getting participants on the platform, organisations often adjust the business model after the platform has achieved a reasonable size to monetise on the value created in order to create additional revenue streams. The following chapter presents the findings and analysis of how the HealthCareZ employees assess the potential of capturing value on PlatformZ, followed by the presentation of the findings around what monetisation strategies are considered for the firm.

4.4.1 Monetising on Value

After analysing the data, it seems apparent that in order to monetise on the created value, platform owners need to be cautious in their strategic decision making to avoid prioritising revenue generation too early over value creation. The following quote exemplifies this statement:

“This industry has examples of others who have made a platform where [...] there's a lot of payment barriers and other things. And the adoption of that is maybe very low because that value proposition is not strong enough at that point in time. So, understanding the mechanisms on what value do you actually have now and what value can you have potentially and then understanding, when do you want to capitalise on that? I think it's a key discussion everyone should have because you don't want to try and monetise or do something too early before you have secured a position.”

- Senior Product Manager A

Senior Product Manager A points out that there is a risk to introduce monetisation strategies before enough value has been created on a platform. In the past, this has led to a low adoption rate for other players in the industry which in the long run, can damage the platform. The quote also highlights the need for managers to fully understand how value is created on the platform today, what functionalities the platform will be able to offer in the future and if the customer is willing to pay for it. Other interviewees share this opinion and advocate to wait with potential monetisation strategies in order to create sufficient value. One of them is Senior Vice President G. He argues:

“So, I think we need to prove the value before we start charging. [...] and we need to be careful, we don't get too greedy on fees, so we miss the related benefits.”

- Senior Vice President G

“If you deliver the value they're looking for, then they are inclined to pay. If we were to just add it today, I think there would be, you know, customers may be disgruntled.”

- Director of Strategy and Consulting E

What both of the quotes indicate is the need for platform owners to understand when the time is right to monetise on the platform. Sometimes, as it seems a direct monetisation strategy where either the user or the supplier must pay for platform usage or access it not a solution within the near future. What seems to be a crucial decision factor here, is the question if a critical mass has been achieved and if true value is being created. If value has been created and the user is encouraged to remain on the platform owners can start, consider different monetisation strategies. Here Senior Vice President G addressed the relevance of customers willingness to remain on the platform:

“And don't be afraid of giving a little bit of value up front [for free] so they [the user] get the benefit upfront, then they will stay. [...] You need to create stickiness.”

- Senior Vice President G

As the quote outlines, Senior Vice President G mentions the aspect of stickiness. This seems to indicate that there is a correlation between the customer becoming accustomed to a platform and enjoy the benefit it comes with and the willingness to pay for the solution. Senior Project Manager D supports this argument and further elaborates on another aspect:

“So, I think it's really important that you [the firm] understand[s]. When have you reached a critical mass? And then when you want to monetise the business and the business platform that you do it in a way where you don't, get people frustrated, they need to see the true value.”

- Senior Project Manager D

This quote indicates that frustration from the customer side would be the neutral reaction when monetisation is being introduced before a critical mass has been reached. If a critical mass has not been reached there will not be a lot of transaction possibilities on either the user side or supplier side and hence limited value is created. Based on this finding the aspect of the right timing seems to be crucial. If a firm decides to go forward with a monetisation strategy for its platform business, various steps need to be considered carefully as Senior Project Manager D outlines:

“So, what I think in terms of the network effect is that you need to make sure that you have the right sequence of your strategic steps, meaning that if we tomorrow decide that, to use [PlatformZ], you need to pay quite a large fee. I think that would limit the network effect. So, we need to be quite strategic about the steps that we take and that they get in the right order, if that makes sense.”

- Senior Project Manager D

In this example Senior Project Manager D highlights the need to carefully observe the different steps that are needed in order to implement a monetisation strategy. What he seems concerned about is especially the fact that decisions such as monetisation strategies shouldn't be

introduced on short notice. Long term strategic thinking seems to be the key aspect. The following chapter aims to shed light on how HealthCareZ perceives various monetisation strategies to the overall business and if the capability to grasp the different concepts are in place.

4.4.2 Understanding Monetisation Strategies and Business Impact

When deciding on a platform monetisation strategy, organisations can choose between various options and must understand how the chosen strategy impacts the overall business. The following chapter analyses the findings on how the different opportunities for a potential monetisation strategy on PlatformZ are perceived and what arguments the interviewees present for and against them. Before presenting the different monetisation strategies that can be implemented as part of the business model transformation it seems relevant to present the overall role PlatformZ plays within HealthCareZ business model as of today. Often platforms are introduced as a complementary offering to add additional services or a new marketplace to an existing product portfolio that builds the core business. By analysing the statements from the interviews, this also seems to be the case for PlatformZ. All the respondents have addressed that the platform today is implemented to support the core business by differentiating the existing products by connecting the digital dots. The following quote from Senior Vice President G exemplified this statement: *“At the moment the business case we have is based on selling more [hardware products].”* (Senior Vice President G). Senior Project Manager D further builds on that by adding: *“Right now, the role of the platform is to differentiate the [hardware products]”* (Senior Project Manager D).

Since PlatformZ is not built to replace HealthCareZ’s core business, the interviewees highlight that when considering monetisation strategies, it would be wise to remain the platform’s position as an enabler for the core business and not let price barriers such as usage or entry fees for the platform jeopardise the core business. However, different monetisation strategies have been presented that theoretically could be applied for platforms within the MedTech industry. There is no indication for HealthCareZ to implement fees at this point of time.

When analysing the data, one specific monetisation strategy recurred multiple times when asking about platform value capture. Namely monetising on a transaction that is realised via the platform. Director of Strategy and Consulting E exemplifies this:

“Whereas if there is a transaction happening, then we can say, OK a lab... or a clinic just paid a certain amount euros to the lab and on behalf of the lab we've facilitated this, and we will take a certain cut of that. But you can only do that once you've created sufficient market force.”

- Director of Strategy and Consulting E

Monetising on the transaction itself is a common monetisation strategy, however when applying this strategy to HealthCareZ various respondents have highlighted that the user side of the platform should be the one subsidised since the user already pays the initial investment of the hardware plus additional costs in form of subscription fees. If HealthCareZ would start charging a fee for every time a medical professional is using the platform, they would likely choose another hardware company. Director of Strategy and Consulting E addressed this scenario:

“So, you've [medical professional] already made a huge upfront payment and they will probably be very [...] I think there would be, you know, customers may be disgruntled.”

- Director of Strategy and Consulting E

As Director of Strategy and Consulting E points out, the medical professionals already invested in the hardware which is needed to access the platform. This setup can be compared with an iPhone user. An iPhone user would most likely not be amused if he or she needs to pay for accessing the App Store or for every time an app is used. Therefore, it would make more sense to charge the supplier side, given that they see that true value is being created. Senior Project Manager D addressed charging the supplier side:

“I think if we can create a product [platform] for the [supplier] that works so well that it takes away so many frustrations, they can save a lot of money because it's much more efficient. I think they will be more sticking to pay more.”

- Senior Project Manager D

The quote indicates that monetising one side of the platform in form of transaction fees is a possibility but as outlined in previous chapters the value creation remains the crucial factor here. Transaction fees in this study can also be understood click fees, meaning that every time a medical professional is being connected with a manufacturer through the platform, and sends a case a click fee is being placed on the supplier or user. Senior Project Manager D addressed the aspect on adding a scaling model in order to scale the monetisation strategy.

“I would say you could do a scaling model. So it could be, for instance, if we used a click case fee, for instance, every time you have a thousand cases and you get one percent discount or something like that. So, the more and more you use the (platform) the cheaper it actually gets per unit, that could be one way of differentiating which would already benefit the larger labs versus the. Smaller ones.”

- Senior Project Manager D

In this example it appears that Senior Project Manager D is concerned about placing fees on the larger supplier since they would face higher costs due to the number of cases they handle through the platform. A scaling model could be more user friendly and would take the customer needs into perspective. If suppliers such as laboratories would face additional fees connected to the platform it might be worth questioning if they would just leave the platform and switch to a competitive product. Senior Project Manager D has considered the risk of them leaving the platform but argues that the switching costs would be too high:

“That will naturally entice suppliers to stay on the platform because the switching costs for them would be to no longer offer their services to thousands and thousands of customers.”

- Senior Project Manager D

By interpreting Senior Project Manager D quote, it seems like the suppliers are also rather dependent on the platforms and hence might be willing to pay a small fee. Another monetisation strategy that theoretically could be introduced is a form of subscription that entails additional services such as a premium positioning within the app store similar to hotels on TripAdvisor. Director of Strategy and Consulting E and Senior Product Manager B both elaborate on this idea:

“You can tell the [supplier] that if you pay, you will be promoted so you get a certain placement. I mean, that's also a way to go.”

- Director of Strategy and Consulting E

“Do we see this as a subscription play where you have different tiers? Let's just call them gold, silver, bronze - where you get added value every time you go up. Yeah, imagine you get better, help you get better access to supplies, you get better workflows, or you get more storage.”

- Senior Produce Manager B

The first idea by Director of Strategy and Consulting E is also targeted towards the supplier, based on the reasoning presented whereas the subscription model Senior Produce Manager B recommends addresses the user by providing better workflows, more storage etc.

The presented monetisation strategies are all directly connected to the platform and can hence be categorised as direct sales models. Another way HealthCareZ anticipates monetisation potential is through indirect sales models where the platform functions as a marketplace to facilitate the sales of other products of HealthCareZ's portfolio. During the data analysis it became apparent that this is a likely monetisation strategy for HealthCareZ. Senior Project Manager D supports this argument:

“I believe that PlatformZ is an enabler for other sales channels, the monetary potential is much bigger there than monetising the platform directly today [...] In my opinion, the big potential is more from the indirect monetary potential.”

- Senior Project Manager D

When asking the management teams why the indirect sales model seems to be the better strategic choice for HealthCareZ various reasons become apparent. One of them is presented by Senior Vice President G:

“A major driver for [hardware] sales are also recommendations [from the laboratory]. And if suddenly we alone start charging a fee, but [competitor A] and [competitor B] don't then [...] you need to be really, really careful. That's why I believe more in the [...] related effects in terms of software sales, HealthCareZ revenue and then in a later

face, we could... we could do... Then you really need to be in a position of strength before you start charging both on the customer side, but also on the supplier side.”

- Senior Vice President G

As the quote outlines Senior Vice President G disagrees with Director of Strategy and Consulting E and Senior Project Manager D. He would be concerned about placing a fee on the supplier and laboratories and hence would recommend using PlatformZ as a sales enabler without adding additional fees to it. Overall, it seems that HealthCareZ’s management team is in agreement that monetising indirect on the value could be suitable solution. However as Senior Product Manager A points out, taking the overall industry landscape into consideration is crucial before taking a decision:

“I mean, again, understanding how the industry is operating in the relative to your company, what are the things you want to monetise on and sometimes you're monetising on stuff which is indirect to the platform. But then you can say if we specifically talk about monetising stuff on a digital platform, you know, of course, there can be sales of goods and services, right? That's one thing. They can also be that you indirectly try to capture revenue from sales and goods being used on the platform.”

- Senior Product Manager A

Finally, it has been identified that respondents are in agreement that when deciding on a suitable model, indirect or direct it is crucial to reflect on the overall business. Revenue streams are and how do they impact the overall business also seem to need consideration. Senior Product Manager A places an emphasis on this:

“And I think, of course, companies to have a very good fundamental understanding on where is the money at in the whole ecosystem that companies operating in. You need to have that view and that map because of course, that impacts your strategy greatly or should do at least.”

- Senior Product Manager A

As presented, it seems that HealthCareZ’s management team is aware of the fact that in order to capture value on the platform not only a critical mass needs to be achieved but sufficient value needs to be created. As for the different monetisation strategies, the management team

has varying ideas on how PlatformZ potentially could be monetised, however they seem to be in agreement that an indirect sales model would be most appropriate. This indicates that the management team is capable of understanding how the different monetisation strategies can impact the business.

4.5 Chapter Summary

To conclude chapter four, it can be said that the analysis of the empirical data reveals three themes namely *understanding platform value-enablers*, *understanding platform value creation*, and *understanding platform value capture*. As presented these themes are related to PlatformZ and the potential challenges the management team might face when considering monetisation during a business model transformation. The themes collectively indicate that certain capabilities need to be in place in order to implement the business model transformation towards monetising on PlatformZ. The first theme is *understanding platform value-enablers* where the data indicates that certain enablers such as innovation, agility, leadership and a certain mindset is needed within the organisation to create and capture value from the platform. The second theme being *understanding platform value creation* entailing the perspectives of how both suppliers and users and lastly HealthCareZ's internal perspective value creation on the platform. The third and last theme presented is *understanding platform value capture* comprising aspects of how the value can be captured and which monetisation strategy would be most appropriate.

5. Discussion

This chapter discusses the empirical findings and analysis from the previous chapter in connection to the theoretical foundation of the study. The aim is to answer the proposed research question:

What organisational capabilities are needed to monetise on the value of a digital transaction platform during a business model transformation?

The discussion will first highlight strategic value-enablers containing the required organisational capabilities innovative mindset and supportive leadership. Second, the findings emphasise the capabilities of identifying and meeting customer needs for creating value strategically on PlatformZ. Lastly, it elaborates upon strategic value capture including capabilities of monetisation timing and the corresponding strategies. To meaningfully portray the capabilities, the concept of organisational capabilities was earlier defined as “a company’s ability to combine and deploy its resources and efforts to reach a desired result, execute the strategy and make required business model changes over time”.

5.1 Strategic Platform Value-Enablers

The capabilities in the first theme indicate that certain enablers are needed in the organisation to capture value on PlatformZ. These capabilities are thought to prepare and enable HealthCareZ to monetise and are assumed to be necessary in the value capture process. The identified capabilities for value-enabling and the implication of these will be discussed below.

5.1.1 Capability: Innovative Mindset

As highlighted in the findings and analysis, several colleagues at HealthCareZ indicates that a capability for an *innovative mindset* is beneficial when considering and introducing platform monetisation. Innovation promotes the emergence of new ideas and technology which can be added to the platform and is needed for value creation and capture according to Helfat and Raubitscheck (2018). The mindset in this situation becomes important, as the data indicates an openness and willingness to try new endeavours and change the organisation is needed. One

respondent exemplified this by highlighting how the opposite was seen in “old and dusty industrial firms”. Here it can be argued that a growth mindset, rather than a fixed mindset is preferred (Dweck, 2007) since this can be beneficial in an undertaking such as monetising on the value of a digital platform.

Moreover, Konopik et al., (2022) also highlight innovation as an important driver for digital transformation, which a platform integration to the business model is argued to be. Elaborating further on this, many of the added features to PlatformZ are in place thanks to innovation and new features comes along in the innovation process. Moreover, risk-taking is highlighted as a trait of innovation by Chang, Wu & Liu (2020) and PlatformZ can be viewed as a risk-taking project, as it's not expected to yield revenue in the near future. This risk-taking aspect is highlighted by Chang, Wu & Liu (2020) as a means to strengthen innovation within an organisation and is also seen in the empirical data where the risk-taking aspect is encouraged by one of the respondents. Without the capability of having an innovate mindset it is therefore questionable if PlatformZ would have any relevant features to offer, or if the platform would have been developed in the first place. For example, the data indicates that hardly any time would have been spent on PlatformZ if not this mindset and this inclination to innovate had existed. This specific mindset is also what Ghosh et al. (2022) stress for a new endeavour like PlatformZ not to fail.

As demonstrated, the capability of an innovative mindset has shown to become important during a business model transformation like the one HealthCareZ is pursuing. The amount of innovativeness and an appropriate mindset can be argued to contribute to the company's new value proposition, key resources and key processes which are the three main components of a business model (Johnson, Christensen & Kagermann, (2008). Therefore, it can be argued that a company planning to monetise on the value of a digital transaction platform should develop the capability of having an innovative mindset within the organisation.

5.1.2 Capability: Supportive Leadership

The second capability identified during the interpretation of the empirical data is the capability of practicing a *supportive leadership*. Supportive, entailing both support of the platform endeavour in question, but also for the employees to accomplish business model change and

hence platform monetisation. The leaders are recognised as key individuals in enabling a reinvention of the business model as they are expected to direct the employees in a desired manner to attain company goals as Konopik et al. (2022) suggest. This is something seen in the empirical data where the leaders' prioritisation of the platform can be seen as a means of directing employees and signal the importance of the platform throughout the organisation. Being supportive for the team members is also highlighted where Breznik and Lahovnik (2016) emphasise the trust building between leadership and employees, and feedback-seeking culture. Another aspect of supportive leadership is the ability to embark on and resiliently lead endeavours with a longer time horizon. This includes persuading employees to onboard in times of change and realise business model transformations as described by Konopik et al., (2022) and also seen in the empirical data on leadership. Not developing a supportive leadership is thought to leave the employees without direction and platform endeavour without a priority and investment, hence the chances of succeeding with the business model change and monetisation is deemed low.

With regards to how HealthCareZ is doing in terms of value-enabling capabilities on PlatformZ, the company is in a seemingly beneficial position having a strong position on innovative mindset and a supportive leadership giving them all the chances of succeeding with the following two steps of value creation and value capture.

5.2 Strategic Platform Value Creation

A recurring topic in the empirical data is the aspect of value creation. The present ambiguity being how PlatformZ can create enough value to entice users and suppliers to actively engage on the platform and how to strategically create value that in a later stage is possible to monetise on. This question and related aspects will be discussed in the following section.

5.2.1 Capability: Identifying Customer Needs

One aspect of value creation which is clearly seen in the empirical data is the capability to *identify customer needs* and what the customers value, which is what Smallwood & Ulrich (2004) and Nasution & Mavondo (2007) describe as customer centricity. Throughout the empirical material, there is a focus on developing PlatformZ in accordance with the identified pain points and needs of the medical professionals and the labs. This is aligned with what

Konopik et al. (2022) outlines when additions and upgrades are made to the products, the customer should be in focus. As previously mentioned, HealthCareZ has conducted market surveys, partnered with labs and hired external agencies which are all actions to identify the customer needs and have given the company extensive insights into what their customers value.

As the platform was created as a means of strengthening the core product of HealthCareZ, the hardware, the platform brings value to the customer in the sense that the hardware they purchased has a wider offering than solely performing the hardware task in the clinic, this goes in line with what Mancha & Gordon (2021) explains about letting third parties add value to the offering. Once the user and supplier are on the platform, one of the fundamental values that were identified in the empirical data was the ease of communication that the platform facilitates between user and supplier. This entails the possibility of sending data in 3D format instead of physically and adding patient material directly to the digital case. This brings value to both sides as waiting time is shortened. Moreover, the structure of communication is eased between the medical professional and the lab since this is now facilitated through a single channel. This is described as another time saving benefit that before was handled through e-mail, text messages or phone calls.

Furthermore, the platform can bring value to the customer through the matchmaking of a medical professional to find a supplier when needed. Traditionally this was done through referrals among peers but can now be facilitated digitally through PlatformZ. This means that the more options and variety the medical professional can choose from, the bigger is the chance that a successful connection will be made. The matchmaking function is in general one of the main value generators on a transaction platform (Parker, Van Alstyne & Choudary, 2016) but on PlatformZ this is of lower relevance as of now, since medical professionals and suppliers already had connections before the platform existed. As the Clinic Representative mentions he would hesitate to randomly find a new partner on the platform without a peer referral, whilst the Laboratory Professional sees this as becoming more common with a more tech savvy generation coming along among medical professionals. This difference in opinion can be seen to agree with what was outlined in chapter 4.1 about industry characteristics.

5.2.2 Capability: Meeting Customer Needs

Not only identifying what the customers want is crucial to create value. Also, the capability to *meet customer needs* and implement required features and changes becomes important for creating value strategically on PlatformZ. Here, the data indicates that agility is needed to execute on these integrations to satisfy the customers, and this is in accordance with what Ulrich & Smallwood (2004) also highlight.

To deliver on the value and satisfy the customers, HealthCareZ have worked continuously to add more supplier options and features on PlatformZ to raise its value. The process of acting upon what the customers want can be likened with what Helfat & Raubitscheck (2018) describe as integrative capabilities. According to what is described by Parker, Van Alstyne & Choudary (2016) about network effects the value of PlatformZ increases exponentially when new suppliers and users join the platform. By ensuring a wide range of suppliers are on the platform, PlatformZ entices medical professionals to purchase their hardware and therewith join the platform which agrees with the second step that Cusumano, Gawer & Yoffie (2019) describes of solving the “chicken and egg” problem. HealthCareZ has targeted the suppliers in this process by incentivising them to join as a means of getting more business to their companies. To further deliver on the value to the customers, HealthCareZ tried to remove any barriers for entry such as making the platform free and providing an easy switching experience for the customers which is aligned with what Parker, Van Alstyne & Choudary (2016) proposes. To work on a seamless experience for the customers the platform contains features such as a communication tool, progress bar for cases, and digitised file handling. All these measures are taken to increase the seamlessness, network effects and surge the chances of that new matches are made through the platform.

However as described, it's not the matchmaking that is highlighted as the user's main pain point, but rather the compatibility issue between different tools in the clinic which is something brought forward by multiple medical professionals. Nonetheless, for natural reasons of competition, it would be ill-considered for PlatformZ to fully “open up” and be compatible with competing hardware as this is assumed to lower the sales of the hardware which still is HealthCareZ's core business. An example of this would be to asking Uber taxi to facilitate rides for Bolt taxi on the Uber platform which is not likely. Hence this large pain point will presumably never be resolved meaning that “true value” according to the medical professionals

will not be delivered. Thus, the considerations of monetising on the platform becomes uncertain.

Given the actions taken by HealthCareZ, and that PlatformZ is still in its infancy with continuous updates made to its functionalities the company is seemingly on a fair path to develop the capabilities of identifying and meeting customer needs. However, more efforts need to be made to identify the customers pain points and solutions need to be set in place to deliver true value and thus differentiate PlatformZ from competitor platforms. Moreover, the concerns from the customers about cost needs to be addressed. Additionally, PlatformZ should keep working towards reaching a critical mass and assure customers that new connections of quality can be made through the platform as well as to deliver on the four values Parker, Van Alstyne & Choudary (2016) propose. This will increase the value and hence monetisation can be considered. If considerations like this is not made the platform may face negative network effects as described by Cusumano, Gawer & Yoffie (2019) and result in a loss of customers on PlatformZ.

5.3 Strategic Platform Value Capture

After having addressed the question about how value can be enabled and created on a platform, the question on how to capture the value in form of platform monetisation will be addressed. When it comes to the question if and how value on the platform can be captured the analysis has shown that platform owners, and or management involved in the decision making around the platform business model require specific capabilities to make decisions that the overall business is benefitting from. The capabilities come to play when platform owners seek to monetise digital transaction platforms to gain additional revenue streams after launching a digital transaction platform.

5.3.1 Capability: Timing of Monetisation

Osterwalder and Pigneur (2010) describe the value capture process as the mechanism through which a business defines the source of revenues and the pricing strategies. To introduce monetisation strategies business owners must adjust their platform business model towards the adoption of revenue streams (Grieco & Isaevoli, 2022). Due to the nature of multi-sidedness,

monetising transaction platforms comes with various unique challenges that differ from linear business models and require the management team involved in decision making to master specific capabilities which this chapter will present.

The findings of the analysis are coherent with the theoretical framework's suggestion that before a monetisation strategy can be defined and introduced to the business model, platform owners need to understand when positive network effects have led to the platform reaching its critical mass as presented in the previous chapter 5.2.2. The analysis presents that platform owner need to assess when sufficient value has been created to proceed with monetisation strategies. As Parker, Van Alstyne & Choudary (2016) outline a chosen monetisation strategy is only appropriate when it does not prevent network effects. The authors point out, that the transactions or services facilitated on a platform must generate a significant amount of value which the platform can capture without producing a negative impact on network effects.

The findings support this by outlining potential risks of monetisation before sufficient value is created and furthermore address that only after customer stickiness is realised platform monetisation should be pursued. Based on those findings it can be assumed that it is crucial for platform owners to assess if a critical mass, customer stickiness and true value creation has been achieved before introducing new monetisation strategies. Therefore, the ability to understand the right *timing* for introducing a monetisation strategy has been identified as a capability needed to monetise on the value of a digital transaction platform.

This finding builds on Konopik et al. (2022) theory that bring forward strategy as an organisational capability. The authors define strategy in this context as a company's ability to adapt the business model for change over time. Konopik et al. (2022) however present necessary organisational capabilities for digital transformation. The identified capabilities in this study further build on those findings by bringing forward capabilities that on the one hand address transaction platforms and on the other hand are of a more concrete nature since they are brought forward to address the identified challenges that come with the monetisation of a digital transaction platform. Based on the findings it is assumed that when an organisation reinvents their platform business model towards monetisation without having the capability to assess whether the timing is right users or supplier may leave the platform when being charged since the stickiness is not ensured. This can lead to significant revenue loss and long-term damage.

5.3.2 Capability: Monetisation Strategies

After platform owners have identified that a critical mass is reached, and the platform generates sufficient value, platform management must solve another challenge which both the literature and the findings from the analysis reveals, namely the question of which monetisation strategy to pursue, if any. Grieco and Isavoli (2022) define value capture innovation as the innovation of an organisations core earning logic, by either changing cost structures or revenue models. The analysis of the findings reveals that once an organisation, in this case HealthCareZ, considers capturing monetary value created on a platform, an additional organisational capability is needed which will be presented in this chapter.

Cusumano, Gawer & Yoffie (2019) explored the challenge of identifying which side of the platform - the user or the supplier - gets charged and which side gets subsidised. Tiwana (2014) builds on this by addressing the question about symmetric or asymmetric pricing. Asymmetric pricing brings profits from one side of the platform while the other side will not be charged. Contrary, symmetric pricing refers to equal monetisation of both sides of the platform – supplier and end user (Tiwana, 2014).

As the analysis discloses this question highlights the need for practitioners' careful consideration and a profound understanding the different market sides willingness to pay and how much the sides expect the counter side to engage as presented in the previous chapter 5.5.2 The potential consequences of not subsidising the right side of the platform have been revealed in the analysis and presented by Parker, Van Alstyne & Choudary (2016). Throughout the analysis, various indications exist that underline the user and supplier willingness to pay. Both sides seem to be price sensitive and have mentioned price as barrier to invest in digital technology or entering a platform.

Another challenge that emphasises the need for specific capabilities to be in place is choosing the right monetisation strategy. As presented in the literature review various strategies can be applied when introducing monetisation on a digital transaction platform such as subscription, transaction fee, usage based, freemium, indirect, connection fees or charging for complementary services. Overall, the platform owner needs to take aspects such as monetising on access versus usage, utility bound or unbound as well as indirect versus direct into consideration. When comparing the different strategies presented and the findings from the

analysis it can be assumed that there is no one size fits all solution and deciding on a strategy is a challenging undertaking since various factors that impact this decision need to be taken into account. Deciding on a suitable monetisation strategy however plays a pivotal role for platforms and can make or break the long-term success and survival (Parker, Van Alstyne & Choudary, 2016; Cusumano, Gawer & Yoffie, 2019)

One additional aspect which the analysis brings forward is the need to understand the role of the platform within an organisation and how that positioning impacts monetisation decisions. As presented in the literature review Mancha and Gordon (2022) bring forward that some organisations introduce digital transaction platforms to expand existing product or service offerings by matching existing customers with third-party producers. HealthCareZ has also introduced PlatformZ to strengthen the core business which seems to be a good idea to remain the platform's position as an enabler for the core business and not let price barriers such as usage or entry fees for the platform jeopardise the core business. Interestingly this aspect seems not to be considered in platform literature covering monetisation strategies. Overall literature mainly addresses the question about monetisation strategy when the platform is considered to be the core business. The analysis of this study outlined that the status of the platform within the organisation seems to play a crucial role when monetising a digital platform and hence need to be taken into consideration. This is also what the analysis brings forward since it seems in the case of HealthCareZ, direct monetisation would most likely not be an option at this point of time. As for the case of HealthCareZ a stepwise approach seems more appropriate, where the focus first lays on indirect revenue streams before introducing direct monetisation strategies.

This leads to that the capability of understanding specific *platform monetisation strategies* and how this impacts the overall business is needed to monetise on the value of a digital transaction platform. Similar to the capability presented in the previous chapter 5.2, this finding also builds on the capabilities presented by Helfat & Raubitscheck (2018), this time it builds on the of environmental scanning c. The authors address that it is crucial for companies to have a strong understanding about its products and services to be able to assess the potential value of making amendments to it. The findings this thesis bring forward build on Helfat & Raubitscheck (2018) identified capability by addressing the platform monetisation as part of a business model transformation.

Based on the findings it is assumed that when an organisation reinvents its business model to include platform monetisation without having the capability to understand specific platform monetisation strategies users or supplier might leave the platform since some of the presented strategies only work in certain environments. Adding for example a subscription to PlatformZ's business model would most likely lead to users leaving the platform as indicated in the analysis since the user already pay subscription fees for the hardware.

When relating the findings back to the case company it can be assumed that the presented capabilities in this chapter namely the ability to understand the right timing as well as monetisation strategies are existent at HealthCareZ. The respondents agree that monetising on the value created at this point of time would strategically not be wise due to the presented reasons. In addition, it seems that the management team has a profound understanding of the different monetisation strategies and how they can impact the overall business.

5.4 Chapter Summary and Final Framework

To summarise chapter five this chapter has presented six capabilities under the three themes *enable, create, and capture* which are deemed necessary for business model reinvention when including a platform monetisation strategy. These capabilities are the outcome of HealthCareZ combining and deploying its resources to accomplish a desired result i.e., changing the business model and eventually monetising on PlatformZ. To visualise this thesis contribution to existing literature Figure 2. is presented below. This study is argued to expand current theory of proposed organisational capabilities needed for platform monetisation.

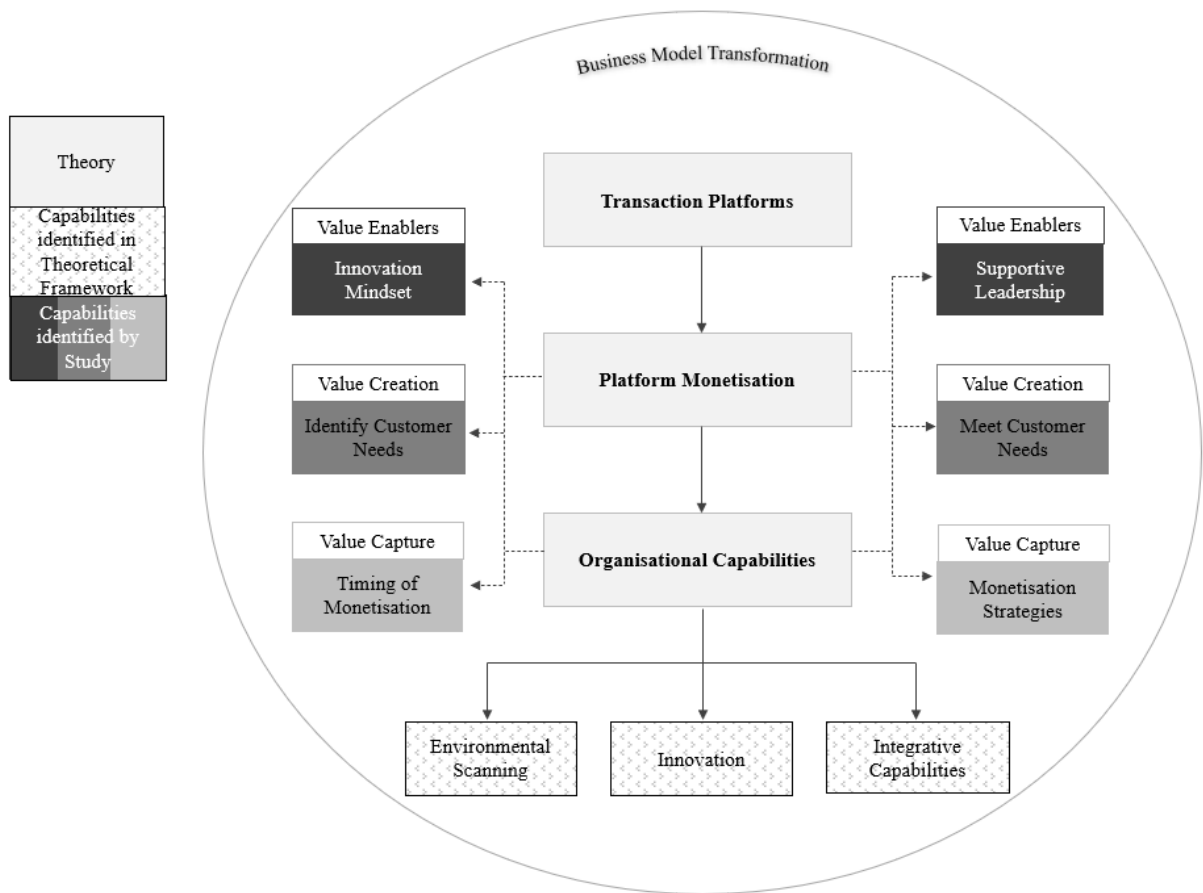


Figure 3: Organisational Capabilities for Platform Monetisation

6. Conclusion

The purpose of this study was to explore what organisational capabilities are needed when a firm transforms its business model to include a platform monetisation strategy. To achieve this, the following research question was formulated: *What organisational capabilities are needed to monetise on the value of a digital transaction platform during a business model transformation?*

Building on a single-case study with a qualitative research approach this study has explored what organisational capabilities are needed to transform the business model to include a platform monetisation strategy. The findings of the thesis suggests that six capabilities within the three overarching themes *platform value-enablers*, *platform value creation* and *platform value capture* are needed to accomplish such a transformation.

Our findings first present that certain value-enablers are essential to proceed towards platform monetisation. The first identified capability is *innovative mindset* meaning that the company needs to facilitate an environment where innovation is aided, and a growth mindset is encouraged. Moreover, the capability for *supportive leadership* was discovered. Here, the leaders are thought to assume a role of guiding the organisation in a desired direction through trust-building and feedback giving and moreover prioritising the platform agenda.

Second, to strategically create value on a digital transaction platform, it is assumed that a company needs to possess the capability of *identifying customer needs* according to the findings. This is believed necessary in order to attract and retain its customers and becomes crucial in the platforms' pursuit of gaining a critical mass, especially if a desire to monetise on this value is apparent. The second capability our findings exhibit in regard to value creation is the capability of *meeting customer needs* which consists of the capability of acting upon customer demands and integrate them to the platform. This may entail completing upgrades to the platform that customers have expressed a need for. The value creation of the platform becomes fundamental to subsequently monetise on this value.

Lastly, the strategic value capture entails the capability *timing of monetisation* where the findings indicate that before monetisation is viable, sufficient value must be created on the

platform. Moreover, the findings indicate that to capture value on a transaction platform the owner must possess the capability to appropriately decide on a *monetisation strategy* in order to not deplete vast amounts of resources in the process. The various monetisation strategies discussed have different implications for different platforms and it is deemed vital to develop an ability to choose an appropriate strategy for the monetisation not to impede on positive network effects.

The outlined six capabilities under the themes *enable, create, capture* comprise what organisational capabilities have been identified as necessary when transforming the business model to include a platform monetisation strategy. The findings are visualised in a theoretical framework presented in chapter 5.4, which give a comprehensive overview of the identified capabilities. The study becomes valuable as an increasing number of companies are assumed to encounter this type of platform integration. Therewith, a reinvention of the business model becomes essential to survive and thrive in a yet more challenging and uncertain business landscape. These findings indicate that the introductory quote has a substantial meaning outlining that a company needs to “make a few moves” and acquire or develop the above six capabilities “before they are in a position to make the move that they want to do” meaning that the organisation suitably can start to monetise on the digital transaction platform.

6.1 Theoretical Implications

The findings of this thesis present theoretical implications and contribute to the existing literature by addressing the identified gap presented in the introduction. The study enhances the understanding of capabilities required to monetise a digital transaction platform by providing a theoretical framework. Furthermore, the study builds on existing literature by incorporating specifically the aspect of monetisation and transaction platforms when identifying which organisational capabilities are required. To the authors knowledge this has a shortage of attention in theory.

6.2 Practical Implications

In addition to theoretical implications, the study contributes to practice. The study provides valuable insights for organisations that attempt to reinvent their business model to monetise on

the created value of a transaction platform. By further increasing the awareness around the capabilities needed to approach platform monetisation, decision-makers and platform owners can actively work on developing these capabilities if needed.

Second it showcases the importance of these organisational capabilities in this certain situation. This is thought to enrich current expertise of platform monetisation. A discontinuation of research in this area can thus lead to significant loss of resources among platform owners and decisionmakers, because of lacking capabilities, as well as leave the theoretical knowledge of organisational capabilities and platform monetisation at the parsimonious stage it is currently at.

Finally, it should be addressed that since this study focuses on platforms within the MedTech industry, an industry where platforms are only emerging and have unique characteristics one needs to be cautious about the generalisability of the findings. Studying more than one case company could have expanded the generalisation of the findings but having multiple interviews with various people in different roles was prioritised to get an in-depth understanding and hence, increase the legitimacy of the study. It is assumed that the learnings are relevant to a certain extent for other transaction platforms owners within the same industry given a similar setup of participants on the platform are present. Platforms within other industries might have different criteria for value creation and value capture.

6.3 Suggestions for Further Research

This study aims to provide valuable insights on what organisational capabilities are needed to transform a business model implementing a platform monetisation strategy. To deepen this research, it is recommended to study organisations which have implemented monetisation strategies for digital transaction platforms and explore what capabilities were deemed necessary after the actual implementation had taken place. Here a comparative study could bring forward potential differences.

In addition, the study has identified another gap in existing research that seems to have received little attention and hence presents an interesting field for further research. As presented in chapter 5.3.2 the study outlines that the positioning of a digital platform within

the organisation, e.g., primary business or supportive of core business seems to play a crucial role when monetising a digital platform and hence should be taken into consideration when considering platform monetisation. Moreover, further research could explore what capabilities are needed for the monetisation of innovation platforms and compare the outcome with the findings this study brings forward.

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Appendix A: Interview Questions

Theme I Platform

- How do you see digital platforms impacting the MedTech industry?
- What are the key challenges firms face when introducing platforms?
 - *How is your platform being perceived in the market today?*
(Additional question for Marketing Manager only)
- How do you see your platform is truly creating value for customers (clinics) and suppliers (labs) in the future that is not offered today?
- How would you describe the demand characteristics from the supplier side?
- How do you view the threat of competing platforms?
- Would you say your platform is difficult to copy?
- Have you experienced any hesitations from suppliers to join your platform?
If yes, why?
- How would you define the switching cost for users of your platform? High/low?
- How does your platform work to prevent users from switching to competitors?

Follow up question if needed:

- What risks do you see with multi-homing i.e., a lab using also competing platforms to sell their services
- What risks do you see with disintermediation i.e., a supplier and a clinic meeting on your platforms then continuing a business relationship off the platform when monetising

Theme II Value creation

- How would describe the network effects in your platform?
- How do you, going forward make sure the apps provided on the platform deliver value to the customer? – Is there a form of quality control in place?
- Have you noticed any organisational capabilities that seems important when having a platform?

Theme III Monetisation (Revenue)

- How do you view the monetisation potential for the platform, both today and in the future?
- When monetising on the platform do you think it is better to charge the supplier side and subsidize the customer or vice versa?
- How would you describe the price elasticity demand of the platform?
- Has your platform been set up in order to monetise in the future in terms platform architecture? If not, what needs to be developed?
 - How do you view varying starting points of monetisation for different customers/suppliers, e.g., after x number of transactions or x years of usage?
 - How do you think your platform could create additional value to avoid charging for value that users previously received for free? (Theory: From Free to Fee)

Interview with Laboratory professional

Theme I Background

- Can you please introduce yourself and & your lab?
- Please elaborate on what workflows are done digitally today.

Theme II Platforms

- Are you currently listed on a platform? - If yes which one?
 - How much of your business is conducted via PlatformZ?
 - How would you describe the value, the platform generates for your business?
 - Has PlatformZ led to new business opportunities for you?
 - Has overall revenue increased since being presented on the PlatformZ app store?
 - Do you think PlatformZ is addressing your pain points and caters for your needs?
 - If you could add any functionalities to the platform what would that be?
- What would make you hesitate to enter a digital platform?
 - What is the minimum value that needs to be delivered?