

High Fashion in Virtual Reality: Is there Competitive Advantage from Early Entry into the Metaverse?

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Abstract

Interest in the Metaverse has risen sharply in recent years, and fashion companies have taken heed, becoming among the first entities to embrace the phenomenon. This thesis aims to analyze the drivers for fashion companies entering the Metaverse and the potential advantages of early entry. A review of the literature addressing entry motivation, entry strategies, and first-mover advantage, along with material about the Metaverse, was conducted to gain secondary data. Furthermore, primary data was collected through interviewing experts and conducting a survey. Finally, secondary data and the two sources of primary data were triangulated, and scenarios, which lead to different advantages for early movers, were created. The study revealed that the learning experience on Metaverse platforms is the key driver and main advantage for companies entering in the market's early phase. Additional significant advantages are brand benefits, the chance to gain new customers, the possibility to create immersive customer experiences, and an expectation that the Metaverse will gain traction. Additionally, from the customer perspective, willingness to purchase digital fashion is low. Still, the Metaverse is considered innovative, and involvement in it increases perceived firm innovativeness. For developing future scenarios, customer-adoption behavior and technological development of the Metaverse were the main criteria found to determine the future and competitive advantage of early entry.

Keywords: Metaverse, NFT, Market entry, Entry strategies, Entry motivation, First-mover advantage, Digital fashion

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Sumário

O interesse pelo Metaverso tem aumentado significativamente nos últimos anos e as empresas de moda notaram, tornando-se uma das primeiras entidades a abraçar o fenômeno. Esta tese tem como objetivo analisar os fatores impulsionadores das empresas de moda que entram no Metaverso e as potenciais vantagens de uma entrada precoce. A fim de obter dados secundários, foi realizada uma análise da literatura sobre impulsionadores para a entrada, estratégias de entrada, vantagem dos pioneiros e material sobre o Metaverso. Além disso, dados primários foram recolhidos através de entrevistas a especialistas e da realização de um inquérito. Finalmente, os dados secundários e as duas fontes de dados primários foram triangulados e foram criados cenários que conduzem a diferentes vantagens para os pioneiros de entrada. O estudo revelou que a experiência de aprendizagem em plataformas do Metaverso é o principal motor e vantagem para as empresas que entram na fase inicial do mercado. Outras vantagens relevantes são os benefícios de marca, a possibilidade de ganhar novos clientes, a possibilidade de criar experiências imersivas para o cliente e a expectativa de que o Metaverso ganhará tração. Por outro lado, da perspectiva do consumidor, a vontade de comprar moda digital é baixa. Ainda assim, o Metaverso é considerado inovador e o envolvimento nele aumenta a percepção de uma firma como inovadora. Para o desenvolvimento de cenários futuros, o comportamento de adoção de clientes e o desenvolvimento tecnológico do Metaverso foram os principais critérios encontrados para determinar o futuro e a vantagem competitiva da entrada precoce.

Palavras-chave: Metaverso, NFT, Entrada no mercado, Estratégias de entrada, Motivação de entrada, Vantagem de pioneiro, Moda digital

Título: Alta Moda em Realidade Virtual: Existe Vantagem Competitiva da Entrada Precoce no Metaverso?

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1 Introduction

In December 2021, the fashion label *Ralph Lauren* entered the Metaverse *Roblox* and began selling digital products to customize gaming characters (Knoll, 2021). In February 2022, it was reported that the designer *Philipp Plein* had acquired real estate in the Metaverse *Decentraland* for \$ 1.4 mil (Salibian, 2022). *Gucci* established a presence in a Metaverse with *Gucci Gardens* on *Roblox* in May 2021 and also recently launched itself on *The Sandbox* (Mason, 2022), and *J.P. Morgan* created a lounge as the first bank in the same Metaverse in February 2022 (Shelvin, 2022). All are major companies with well-known brands, and many more, like *Nike* and *Vans*, have also set different marketing agendas on Metaverses like *Roblox*, *Minecraft*, *Decentraland*, or *The Sandbox* (Marr, 2022).

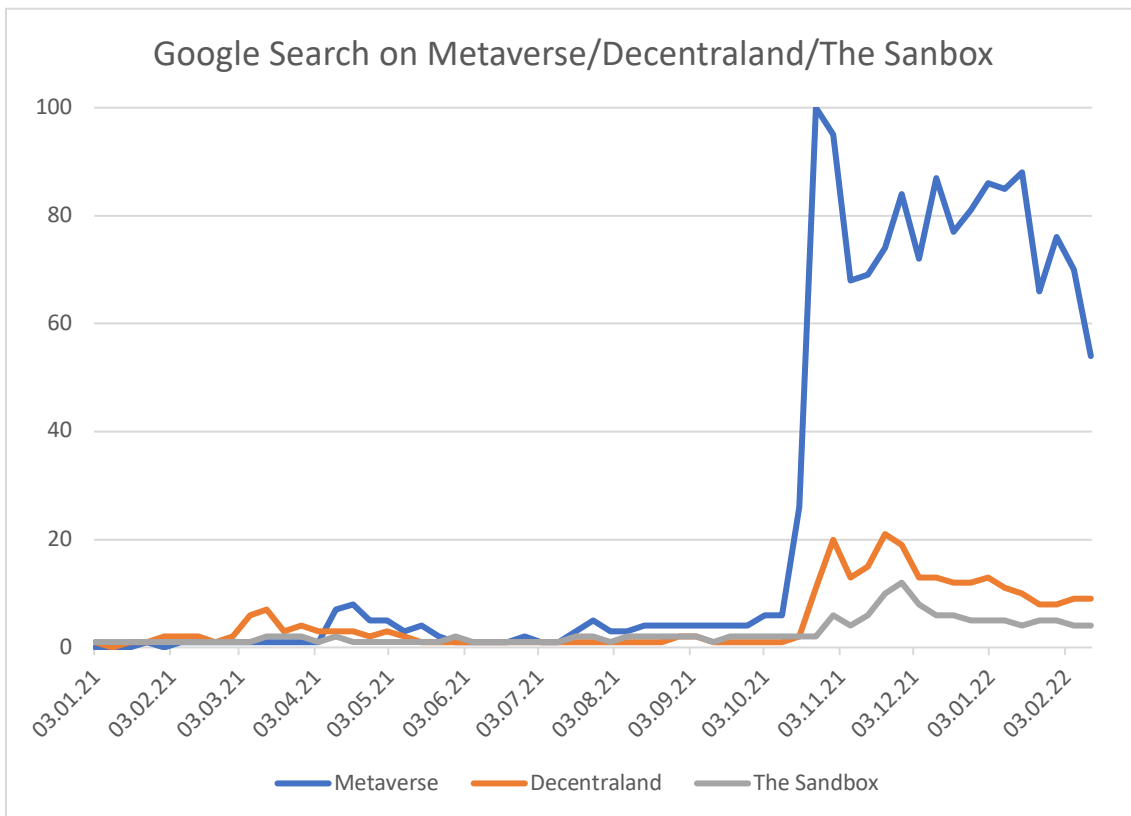


Figure 1: Google Search on Metaverse/Decentraland/The Sandbox

However, the Metaverse is not just a topic in C-suites but is also starting to gain more mainstream attention. According to data from *Google Trends*, based on *Google* searches, public interest in the Metaverse and networks commonly considered as Metaverse applications, such as *Decentraland* and *The Sandbox*, rose significantly since the last quarter of 2021, as can be seen in *Figure 1* above. Searches peaked after the social media conglomerate formerly known as *Facebook* renamed itself *Meta* at the end of October 2021 (Isaac, 2021). In his press

statement regarding the rebranding of the company Mark Zuckerberg (2021), the CEO of *Meta*, said that they expect an “embodied internet where you’re in the experience” and that a feeling of presence and emersion should be the ultimate goal for the development of the internet (Zuckerberg, 2021).

Since then, investment banks like *Goldman Sachs* (Sheridan et al., 2021) and *J.P. Morgan* (Moy & Gadgil, 2022) have published analyses of the Metaverse and its potential. *J.P. Morgan* emphasizes that more multi-national companies are building a presence in a digital universe and that digital ownership of clothing and art is growing (Moy & Gadgil, 2022). Considering this rising attention and many notable players -- from the fashion industry to investment banks -- becoming a part of this digital phenomenon, this dissertation assesses the drivers for companies to enter the Metaverse and open stores in that digital world as first movers. It seeks to unpack the possible competitive advantages of this strategy.

Existing literature about the Metaverse tends to focus on *Second Life*, a platform that was popular before current Metaverses emerged. Additionally, definitions of the technology associated with the Metaverses are available, as well as first use-cases in education, describing platforms that are mainly used by juveniles. However, there is not a great deal of material addressing the recent developments framed from the perspective of management and strategy.

The timing of entry, possible first-mover advantage, and other factors that impact advantage regarding the Metaverse, warrant a detailed study. Additionally, research about different modes of market entry, the reasons for specific modes, such as the fashion industry being first movers, and the impact of flagship stores will be discussed.

Based on the current literature, questions for semi-structured interviews were derived and discussed with Metaverse experts, consultants, and Metaverse-experienced practitioners from fashion companies. The content of those interviews was analyzed using inductive categories in line with Mayring (2004). Additionally, a survey was conducted to gather information about the customer’s perspectives. With the survey, information about the perception of the Metaverse, the impact of entry on perceived brand innovativeness, and the willingness of customers to buy products in that digital domain were collected. After analyzing the results of the different research methods, outcomes were discussed and compared with the literature in a triangulation approach. That is followed by the development of scenarios based on the expectations of customers and companies to find possible competitive advantages that could emerge in the future based on strategic choices concerning the Metaverse. Finally, the last

section summarizes the conclusions of this research, implications for management, directions for potential future research, and the limitations of this project.

2 Literature Review

This literature review consists of four sections. These encompass the definition and the history of the Metaverse and research on company behavior on ancestors of recent Metaverses, as well as opportunities derived from non-fungible tokens. Moreover, companies' motives to enter new emerging markets, the impact of timing on competitive advantage, and different strategies to enter markets and their expected benefits will be analyzed.

2.1 Definition of the Metaverse

The Metaverse is considered to be an assembled digital world, where avatars interact in a three-dimensional application and have the possibility to participate in social, political, economic, and cultural activities. A Metaverse is commonly seen as an analog of the real world where daily life can take place but without physical limitations (Park & Kim, 2022). It is enabled by emerging technologies that allow dynamic interactions such as virtual reality, augmented reality, and mixed reality, where the actual environment is not just extended but actively involved in the experience (Mystakidis, 2022). Before the emergence of these new technologies, early researchers proposed that five criteria defined a Metaverse. These are: (1) the design of the Metaverse itself; (2) the people present and how they are represented by avatars in the digital world; (3) the technological capabilities of the Metaverse in terms of communication, rendering, interaction, and team processes; (4) behaviors, that can be shown via the avatars, and; (5) outcomes, which refers to the effectiveness of collaboration (Davis et al., 2009). Interest in Metaverses has risen dramatically since 2021, but *Second Life*, a comparable application to current platforms, was available since the 2000s and offered similar possibilities like creating an avatar, buying real estate, and exchanging digital money (Kaplan & Haenlein, 2009). Companies' business opportunities included selling virtual products like virtual shoes or physical products, where the Metaverse was used as an online sales channel. Hence, major companies, including Nike, Dell, and Disney, built a presence on that platform (Eisenbeiss et al., 2012).

The difference between platforms that are currently associated with the Metaverse, like *Roblox* and *Fortnite*, and *Second Life*, are that current platforms have a significantly larger user base, offer the possibility for users to shape the environment in the game actively, and the technical capabilities have considerably increased since the launch of *Second Life* (Rospigliosi, 2022). *J.P. Morgan* argues that there are currently two main conceptual approaches to the Metaverse. The first is based on Web 2.0, where centrally owned platforms like *Roblox*, *Fortnite*, or *Second*

Life facilitate the Metaverse, and assets are owned just virtually in the game. Then there is the Web 3.0 approach, where the platform is community-governed, assets are owned via non-fungible tokens (NFTs), and payments happen through cryptocurrencies, where *The Sandbox* and *Decentraland* are the most commonly known examples (Moy & Gadgil, 2022). Those NFTs play an essential role in the metaverse because they lead to situations of artificial scarcity for digital assets, as opposed to the notion that every digital piece can be perfectly reproduced multiple times. Instead, only one version is considered original documented by smart contracts in the blockchain and owned by a specific person (O'Dwyer, 2020). The blockchain functions as an autograph on physical art as proof of originality, and the publicly available blockchain entry also verifies ownership (Chohan, 2021). The crypto-network which is the basis for most NFTs is Ethereum. NFTs are indivisible unique tokens that “assign or claim ownership of any unique piece of digital data” (Ethereum.org, 2022) to one specific owner. They are minted through smart contracts as the representation of any digital or non-digital asset. Technically, creating NFTs encompasses creating a new block in the blockchain, validating information, and recording information in the blockchain. Hence, the scarcity of a specific product is in the creator's power (Ethereum.org, 2022). On decentralized Metaverses like *Decentraland*, real estate or land is traded as NFTs and has already experienced surging prices (Dowling, 2022). Dowling (2022) also states that the market is only slowly adapting pricing mechanisms toward efficiency. His study, however, did not consider different locations of real estate, an essential factor for pricing in real-world real estate that is also relevant in digital worlds.

Sales of products on the Metaverse can be considered sales of digital products, defined as being non-rival, having marginal costs of production and distribution near zero, having lower marginal costs of search, and lower transaction costs (Lambrecht et al., 2014). With NFTs, these products can be artificially scarce, and property rights can be sold and protected (O'Dwyer, 2020).

Analyzing drivers for entry and strategies companies can pursue to gain competitive advantage, it is crucial to define the market on the Metaverse. Commonly markets are determined to be a collection of services or products in a specific geographic location that would be a valuable monopoly if governed by a single player (J. B. Baker, 2007). More precisely, the European Commission defines a relevant product market as comprising interchangeable products that can be substituted for each other in customers' minds. A geographic market is an area where the players interact in supply and demand relationships under homogenous conditions that can be distinguished from other markets (European Commission, 1997). Whether products occupy the

same market is usually determined by analyzing the cross-price-elasticity of different products (J. B. Baker, 2007). If we consider the definition of the Metaverse mentioned above, we observe that products are either digital products on platforms or owned via NFT- technology, which is not a comparable product to regular apparel. Consequently, the Metaverse can be seen as an independent product market and its own geographical market.

2.2 Market Entry Motivation

The motivation of companies to enter a market can be explained along two dimensions. These are (1) whether companies entering the market can achieve short-term gains in profitability or if market entry is strategic for other reasons, and (2) whether the decision to enter is due to the observation or anticipation of competitor actions or utterly independent from the competition (N. Kim et al., 2015). Kim et al. (2015) propose that established companies that enter new markets early usually act independently from their competitors, mainly basing decisions on the practical needs of customers. But the authors claim that in situations of technological uncertainty, companies join due to long-term strategic goals and competitor-focused motivations. Further evaluating the profitability expectations of companies, market size is a crucial factor for entry and contributes to the motivation of firms to enter a specific market. That effect is even more substantial for niche markets as it is more critical to reach a viable market share. But this is less true for high-tech industries where market size is highly dynamic and developing capabilities is also a major motivation for a company (Min et al., 2017). Additionally, Min et al. (2017) found that the impact of market size is feeble in new industries, where competitors are expected to enter later. Consequently, market attractiveness is unpredictable as market share and dynamics change significantly.

Another potential driver for the investment of fashion companies into the Metaverse might be diversification. Aivazian, et al. (2019) identified that diversified companies have a natural hedge against adverse economic conditions. In times of financial challenge, when conglomerates can allocate cash reserves between their different businesses, diversified companies have cheaper access to debt financing due to lower default risk (Kuppuswamy & Villalonga, 2016). Economic policy uncertainties also impact financial performance, employment rates, and investment decisions (S. R. Baker et al., 2016). In 2020 and 2021, examples are tensions between the United States and China and the outbreak of Covid-19 (Ahir et al., 2022). Wars significantly impact economic policy uncertainty (S. R. Baker et al., 2016), as seen with the Russian invasion of Ukraine in 2022 (Department of Finance, 2022). In an

environment of uncertainty, higher diversification is desirable for most companies (Hoang et al., 2021).

Furthermore, digitization of retail is an ongoing process, encompassing e-commerce and omnichannel-marketing approaches. Digitizing actors on the sell and buy sides allows for new shopping settings and substituting physical products with digital and hybrid products (Hagberg et al., 2016). From pre-purchase to purchase and post-purchase experience, the entire process is nowadays augmented by digital auxiliaries and shaped by digital communities and client-customer interactions (Grewal et al., 2013). Metaverse and VR technologies can potentially add value to fashion companies and allow them to offer services like virtual fitting rooms, virtual catwalks, body scans, and support digital fashion communities (Idrees et al., 2020). As part of the retail experience, advertising is also present in the Metaverse. Kim (2021) argues that the Metaverse has plenty of opportunities for potential advertising. This potential will be realized as the fusion of various defining technologies like social media, virtual reality, and mobile becomes the successor of Web2 (J. Kim, 2021).

2.3 Market Entry Timing

There is debate about which timing is superior -- the existence of a first-mover advantage or being a second-mover. Entry timing is a critical factor for success, and the evolution of a market entails matching entry strategy with a firm's market strategy (Zachary et al., 2015). This poses questions of what advantages accrue from entering a market early, what are the requirements for exploiting early entry, and what advantages are there for potential late entries?

Potential first-mover advantage

Competitive advantage for companies who enter a specific market first can be derived from (1) technological leadership based on learning gains and potential patents; (2) pre-emption of others acquiring assets, which addresses appropriating scarce resources like premium retail locations before competitors, and; (3) buyer switching costs and choices under uncertainty for first-movers (Lieberman & Montgomery, 1988).

Concerning the advantage (1) of technological leadership, researchers argue that in an environment defined by uncertainty and dynamic changes, strategies pursuing exploratory innovation (defined as radical innovation to meet the needs of emerging markets and customers) are more successful than those aiming for exploitative innovation (Jansen et al., 2006). In market turbulence, absorptive capacity, organizations' skills to learn from the external environment, and dynamic capabilities are crucial for competitive advantage (Lichtenthaler,

2009). Adner & Kapor (2010) claim innovation should be embedded in an ecosystem that implicates upstream suppliers and downstream partners and customers. Furthermore, they found that innovation advantages are strengthened by challenges, which leads to more learning advantages and inimitability. But possible edges are eroded by complement challenges that slow down learning for the company, allowing competitors the possibility to catch up (Adner & Kapoor, 2010). In the case of platforms, which can be considered ecosystems, a foundational technology is established, which is the basis for innovations promulgated by a multitude of contributors, and every innovation increases the competitiveness of the ecosystem through positive network effects that create additional complements and users (Gawer & Cusumano, 2014). Researchers distinguish between (1) leadership roles concerning who implements governance and coordinates transactions; (2) players who directly create value which contains suppliers, assemblers, complementors, and users; (3) roles supporting value creation or the ecosystem itself and; (4) entrepreneurial ecosystem roles which contribute to ventures and ideas in the ecosystem (Dedehayir et al., 2018). Dedehayir et al. (2018) defined players who offer services directly on platforms as complementors. These can be considered platform-dependent enterprises as they rely on the implemented technology of the platform while pursuing their own entrepreneurial goals (Cutolo & Kenney, 2021).

Addressing the topic of (2) pre-emption of scarce resources, the evolution of blockchain and decentralized finance (DeFi) can allow users and operators, instead of the creators of the metaverse platform, to own assets and ensure that these assets are unique and tradable (Duan et al., 2021). DeFi promotes interactions without any governing entity and lower transaction costs, building trust upon the transparency and decentralization of blockchains and replacing intermediaries (Chen & Bellavitis, 2020). Based on the prevailing technologies, transactions in Metaverses currently already include real estate and scarce items (Duan et al., 2021). As analyzed in a previous section, the ownership rights of digital assets recorded on the blockchain are called NFTs (non-fungible tokens). These can certify various digital assets like trading cards, songs, images, digital clothes, or digital real estate. The prices for digital real estate on *Decentraland*, one of the biggest Metaverses, have increased significantly from March 2019 to March 2021, despite considerable volatility, a norm in emerging markets (Dowling, 2022). In March 2022, Decentraland also launched a Fashion District where high-profile brands establish stores and hold events like the Metaverse fashion week, where digital and physical fashion are presented by avatars (Bousquet-Chavanne, 2022). Dowling (2022) also observed price differences depending on the real estate location, similar to the real-life market.

The third (3) part potentially leading to a first-mover advantage concerns switching costs. Porter (1998) defined switching costs as the one-time cost customers face when switching from one supplier of a specific good to another. These include both direct costs and indirect costs such as required training or the need for technical help. On current social media platforms like *Facebook*, switching costs are high as a sudden change of channel would cut users off from personal peers unless everyone changes in tandem (Cusumano, 2011). Network intensity, which refers to the direct and repeated interaction among users of the specific digital platform, and direct network effects, are crucial elements of switching costs to another platform (McIntyre et al., 2021). Companies try to retain customers as much as possible as this is considerably cheaper than attracting new ones. Brand loyalty is also positively impacted by brand awareness, perceived value, organizational associations, and brand uniqueness (Su & Chang, 2018). To achieve brand loyalty from customers in the luxury fashion segment, companies have to create emotional attachments to their brand by consistently delivering expected quality and offering symbolic benefits. Hedonic functionality can be strengthened by emphasizing the elitism and extravagance of the brand through the perception of scarcity (So et al., 2013).

Potential Second and Late Mover Advantage

There are questions about whether first movers entering markets gain systematic advantages, as there is also the idea of a second-mover advantage. Researchers conclude that the notion of companies gaining an immutable competitive advantage through being first is not necessarily the case based on empirical and conceptual evidence (Kerin et al., 1992). Competitors who enter later can benefit from first-mover innovation, relying on complementary assets and more frugal innovation needed as second movers (Teece, 1986). First-movers define the category concept of the market and create customer preferences (Carpenter & Nakamoto, 1989), and those preferences allow later entrants to develop superior, cheaper, or tailored products (Shankar et al., 1998). Additionally, later entrants can overtake first movers with innovations that reshape the previously defined category or the competitive game between players, which can be achieved either by an innovative product or an innovative strategy (Shankar et al., 1998). Mathews (2002) argued that even in industries that require know-how in high-tech, late entries who choose deliberately to hold back and let others explore first could become industry leaders. Latecomers may have meager resources but can compete by imitation. Especially in technologically more demanding sectors where new functionalities are developed over time, companies that enter later can exploit existing knowledge and produce superior products to first

movers. Latecomers have to capture resources that can be internalized and developed into dynamic capabilities, which leads to strategies to acquire competencies (Mathews, 2002).

Contingency Theories addressing Entry Timing

In addition to the ideas of first and second-mover advantage, the notion of contingency theories has emerged. Those consider multiple factors in defining which entry strategy timing is superior. The creators of the first-mover advantage concept themselves changed their assumptions about the first-mover advantage to consider the complex effects of market timing, acknowledging different measures of success -- from market share to survival. The advantage of early entry depends on the characteristics of the market and the firm itself (Lieberman & Montgomery, 2013). Markides and Sosa (2013), for example, stated that the business model of entering companies could explain the success of first movers and late entrants, as well as of incumbents responding to the market entry of new competitors. It is proposed that first-movers should target mainstream customers and not just early adopters and make the product accessible to the masses (Markides & Sosa, 2013). They also discuss entry timing in relation to establishing a dominant design in a specific industry. Suarez et al. (2015) also dealt with timing and the possible existence of a first-mover advantage, proposing an optimal window of opportunity for companies to enter an emerging market instead of a generalized advantage for the first to market. They describe the window between creating a dominant category and establishing a dominant design (Suarez et al., 2015). The dominant category is the point when the market boundaries are created, and the need for the product is socially accepted (Suarez et al., 2015). In contrast, the dominant design is considered the point in the evolution of the product where the focus of innovation switches from product to process innovation and when standards associated with the product are established (Abernathy & Utterback, 1978).

2.4 Entry Strategies pursued by Fashion Companies

Anderson and Gatignon (1986) defined seventeen different strategies to enter a new geographical market, which differ according to the level of control over the foreign operation. This addresses the possibility of influencing decisions, executing strategies, and deriving profits. Low control is associated with a lower required resource commitment, such as licensing, whereas entry strategies with wholly-owned subsidiaries are considered a high-control and high investment strategy (Anderson & Gatignon, 1986). In general, companies would like to create a presence by direct investment in new markets but are often hampered by limited multinational experience or size. This leads to the situation where entry modes requiring direct investment are mainly used for markets with high potential and relatively low risk (Agarwal &

Ramaswami, 1992). Companies have to gain experiential knowledge in specific markets to deal with clients, institutions, and governments. The cost of this process is connected to prior expertise in internationalization and internally held capabilities. Concerning possible impact factors on the mode of entry, the perceived risk in the target market is correlated with cooperative entry modes (Eriksson et al., 2015).

The growth strategy commonly pursued by fashion companies tends to include entering new markets extensively, both via wholesale distribution and by operating their physical retail stores. Frequently, fashion companies enter the first step via wholesalers and then open a flagship store as a physical presence in the target market (Moore et al., 2000).

Flagship Stores as Market Entry Strategy

Flagship stores are defined by a location in a well-known area, store size that is above average, a multitude of products offered by the brand in the store, a high-quality environment and design of the property, and the intended purpose for not just selling products but also communicating values and position as a model for other retail stores of the company and brand (Manlow & Nobbs, 2013). For luxury brands, huge flagship stores in well-known streets reflect the company's image and brand status as a leader (Moore et al., 2010). Furthermore, these stores can provide meaningful interactions with customers and are a way to engage emotionally with them (Manlow & Nobbs, 2013). Therefore, special services for top customers are offered, like parking or private lounge rooms with pleasing offerings, which cause customers to remain longer in the store (Nobbs et al., 2012). Additionally, the stores and services provided are considered a part of the luxury brand experience, which positively contributes to the prestige and identity of the brand. Using a flagship store as a market entry strategy anchors the brand's credibility and strengthens relationships with distribution partners and the fashion media as it allows celebrities to be seen in stores (Moore et al., 2010). Customers value the high-quality environment, connect the store to the brand's heritage, and target the stores specifically as part of customer journeys. The majority of visitors in flagship stores of major cities are tourists (Manlow & Nobbs, 2013). Fashion brands tend to have their largest flagship stores in their countries of origin, and the size of the flagship stores correlates with the importance of the location (Nobbs et al., 2012).

These points raise the question of whether the effect of flagship stores can be transposed onto digital platforms. With e-commerce becoming the most important sales channel, the role of physical stores in the fashion industry is acknowledged as providing a distinctive branding

experience for direct interactions with customers. This means contribution has shifted from selling products to communicating the brand (Alexander & Cano, 2020). Therefore, retailers have an advantage in physical stores where they can control the entire experience and have the possibility to address all the senses with measures like lighting, fragrances, and sounds (Spence et al., 2014). Currently, the industry is evolving from multi-channel retailing, which means sales through various channels, to omnichannel retailing, which addresses the integration of channels utilized by customers during different stages of the shopping process. The strict separation between online and offline channels is vanishing, leading to the integration of brick-and-mortar stores and online tools (Verhoef et al., 2015). This trend is driven by mobile technology and the ability of customers to compare prices online and complete purchases from their smartphones. Additionally, new offerings emerge that break down barriers between the physical and the digital world (Brynjolfsson et al., 2013). Generation Z, in particular, expects an intelligent integration of modern technology in retail spaces, providing fast and convenient transactions without losing the shopping experience of actually entering stores and having social interactions (Priporas et al., 2017).

Haenlein & Kaplan (2009) identified a positive spillover effect from exposure to flagship stores in digital worlds for brand building and catalyzing purchase intentions in real life. This is in line with the idea that digital flagship stores can contribute to the sales of digital products and provide significant value for a company's marketing operations.

Exporting as Market Entry Strategy

Market entry with an owned store reflects an entry mode with high control and dominant equity interests. There are also modes with balanced interests and less control like franchising, exporting, licensing, or distribution agreements (Root, 1994). Starting with exporting, a sales agent is frequently used to enter new markets (Vahlne & Johanson, 2017). The strategy implemented can be seen as a stepping stone for later plans and creates various path dependencies (Welch & Welch, 1996). The advantages of exporting to other markets are that no initial investments are required and lower financial risks. But there are transaction costs like tariffs and transportation as well as additional costs like exchange rate risks and information costs (Grant & Jordan, 2015). This internationalization mode was also preferred if a company had a low commitment to the market and gains were just a tiny proportion of total revenues (Cavusgil, 1984). Nowadays, cross-border sales via e-commerce have become an important channel, as companies do not have to run a physical presence in specific overseas markets. Transactions occur either through the company's website or, more likely, via a partner's

platform, reducing transaction costs (Qi et al., 2020). In countries where the technological infrastructure is accessible, e-commerce channels lessen the perceived distance between the target and the home country. But there is a dependency on agents in the host country, and companies also risk falling into the virtuality trap, which refers to firms relying too much on online activity (Yamin & Sinkovics, 2006). Connected to this, social media has become essential for internationalization, and managers of fashion companies try to build international communities and create a complete brand experience online. Nevertheless, researchers found that it cannot substitute for physical stores but are only a complement (Mazzucchelli et al., 2021). Fostering online activity aims to build a presence in a target market and establish sales channels without having to invest in a physical store with its higher risks and operating costs (Sinkovics & Sinkovics, 2013)

3 Methodology

3.1 Research Design

Qualitative data was gathered through semi-structured interviews with experts on the Metaverse, employees of fashion companies, and consultants in the field of digital fashion. These interviews were analyzed following Mayring (2004). To consider the customer perspective, a survey among potential users of Metaverse fashion was conducted. The collected data was described and analyzed with t-tests, linear regressions, descriptive methods, clustering, and a principal-component analysis. Finally, there was triangulation between the outcomes of qualitative research, quantitative research, and the literature review.

3.2 Qualitative Data Collection

The framework from Kallio et al. (2016) was used, consisting of (1) identifying whether semi-structured interviews are a suitable research method, (2) accessing previous knowledge, (3) formulating a first version of the interview guide, (4) testing the guide and finally (5) presenting the final semi-structured interview guide. The ability to explore motives, beliefs, and attitudes is one of the major advantages of semi-structured interviews (Barriball & While, 1994). Additionally, semi-structured interviews allow the researcher to evaluate the interviewee during the interview to observe non-verbal indicators (Barriball & While, 1994). The flexibility to ask follow-up questions ensured that the information collected was situation-dependent (Turner III, 2010). A small number of Likert scale questions was added to gather ordinal data and quantify experts' perceptions on specific topics discussed during the interview process (Joshi et al., 2015). At the beginning of the interview, before the research questions were covered, demographic questions about age, country of origin, and current job position were asked, and the interviewee had the chance to give feedback about the interview process in the end (Adams, 2015).

Consequently, the interview questions based on the literature are:

Chapter	Developed Question
General	What is your age, your country of origin, and your current occupation?
General motivation to enter the metaverse	What is the motive for fashion companies to enter the metaverse?
	Which competitive advantage are fashion companies expecting?
	Likert-Scale: Fashion companies enter the metaverse due to short-term profitability expectations.
	Likert-Scale: Fashion companies enter the metaverse as they see and expect competitors to do that.
	Is there an advantage for companies who enter the metaverse early?

Advantages of early entry into the product market	What is that advantage? / Why not?
	Do you think there is an advantage in learning if you enter early?
	Are there any resources that will be scarce for companies entering later? Which resources are affected?
	How do companies choose which metaverse to enter? Is there the risk that current metaverses will not be the dominant ones in the future?
	What are the potential advantages for 2 nd movers?
Entry strategy into geographic markets	What is the reason for fashion companies to open a flagship store in the metaverse?
	Do you expect positive spillovers on the brand?
	What is the reason for companies to list digital products in online stores?

Table 1: Interview Guide for semi-structured Interviews

The interview was presented to interviewees who either occupied significant positions in fashion companies already operating in the Metaverse, were individuals contributing to a Metaverse project, or were experts drawn from the banking or consulting worlds who had published on the Metaverse. The list of people interviewed in video calls in April and May 2022 is as follows:

Interview ID	Position	Reason for interview
Interview A	Merchandise Specialist in an Italian luxury fashion company	The company of the interviewee established metaverse presence as one of the first companies
Interview B	Founder of a digital fashion consultancy	Expert on the development of digital fashion and contributor to the metaverse fashion week
Interview C	Founder of a web3/metaverse agency	Worked in collaboration with different brands on various metaverse implementations
Interview D	Director of innovation in a major US-fashion company	The company entered metaverse, and he is the responsible person
Interview E	Self-employed consultant for metaverse and web3 projects	Consults companies and brands for possible entry into the metaverse and their potential strategy
Interview F	Professor for luxury management and board member	Teaching and consulting in the field of brand management in the luxury sector
Interview G	Consultant for Metaverse in a top consultancy	Consulted several S&P 500 companies on their metaverse strategy
Interview H	Digital communication manager in an Italian luxury fashion company	The company entered the metaverse recently with its collection and a pop-up store on Decentraland
Interview I	Head of the NFT office at a fashion retailer and fashion magazine	The company is one of the leading fashion blogs and a growing retailer in the fashion area.
Interview J	Advisor and business angel for multiple companies in the Metaverse and NFT area.	One of the advised companies was acquired by a major fashion company to drive their metaverse presence

Table 2: Interviewees for semi-structured Interviews

After the interviews, which were recorded, the audiotapes were transcribed, and summaries of these can be found in the Appendices C to L.

3.3 Qualitative Data Analysis

As the semi-structured interviews have standardized along with unstructured elements, a hybrid mode of analysis was chosen (Adams, 2015). Hard numbers and the outcomes of the Likert-scale were analyzed with graphs and distributions to visualize fundamental trends in the data (Adams, 2015). Responses to open-ended questions were analyzed with content analysis (Mayring, 2004). Inductive category formation following Mayring & Fenzl (2019) was applied. Thus, after parsing the research and material, “Factors that facilitate entry into the Metaverse” was defined as the selection criterion. The transcribed interviews were abstracted to the desired level (Mayring & Fenzl, 2019).

3.4 Quantitative Data Collection

To gain insights into the customer perspective, a survey was conducted. The survey was distributed online via various platforms, allowing a low unit cost of data collection and potential high speed of answers (Fowler Jr, 2013). The survey was split into three parts. Firstly, there was general information about the respondent’s demographic background. Secondly, questions were asked about the current usage of Metaverse platforms, the expected impact of those, the intent to use Metaverse services, and the perception of innovativeness of the product. The questions were designed to test the receptiveness of customers to receive certain services via the internet and their willingness to adopt (Bélanger & Carter, 2008) as well as to define the product innovativeness (Fu & Elliott, 2013). The questions can be found in Appendix A. Finally, in the last part of the survey, the aim was to identify the impact of firms’ Metaverse activity on the perception of their innovativeness. The research schedule of Kamins & Alpert (2004) was employed using a statement about the company as a stimulus followed by questions about the perception of the company. As stimuli served public newspaper articles, which were anonymized to counteract possible biases based on associations with a brand. The perceived innovativeness of the firm was then measured (Kunz et al., 2011) and recorded on a 7-point Likert-scale.

The survey was administered in English and tested for biases or other issues with a sample of ten students. The test data was not used to prevent distortions.

The survey was conducted in April and May 2022 and was started by 130 people, whereas 92% finished the survey. Attendees, who did not complete the entire questionnaire, were excluded

from the data, which led to a final data set of 119 observations. The variables were comprised of gender, age, country of origin, current usage, expectations about the future of the Metaverse, three items regarding the use intention measured on a 7-point Likert-scale in response to statements including the likelihood to buy Metaverse products, the perceived innovativeness of Metaverse fashion and perceived firm innovativeness in two different scenarios. The complete list of questions can be found in Appendix A.

3.5 Quantitative Data Analysis

The first part of the questionnaire, after the demographics, asked for the general perception of the Metaverse, willingness to adopt, usage intent, and the expected future. Every variable was analyzed descriptively by assessing the mean, the median, and certain saliences in the distribution. Furthermore, clusters were analyzed, which potentially represent user groups. A principal-component analysis and k-means cluster analysis were conducted. The former creates new uncorrelated dimensions that maximize variance, and it aims to reduce dimensionality by minimizing information loss at the same time. K-means are an unsupervised machine learning algorithm to find distinctive clusters for further analysis. The number of k clusters is defined based on the graph of k-values and the elbow method.

The second part surveyed perceived firm innovativeness. Two scenarios were plotted against each other with density curves, and a basic descriptive analysis was conducted to understand the data set and the differences. In the next step, a t-test was used to define whether the difference between the two scenarios was significant. As the two scenarios were measured for every participant and the two samples are consequently connected, a paired t-test was used. A null hypothesis and an alternative hypothesis were tested. In the final step of the analysis of scenarios, the magnitude of the delta between the PFI of the two scenarios was investigated with a regression analysis. The dependent variable was the delta of the PFI of the scenarios, and the independent variables were the age of the participants, the usage intention, the perceived product innovativeness, the current usage of the Metaverse, the expected importance of the Metaverse in the future, and the self-assessed likelihood as well as the probability of participants to purchase digital fashion.

4 Results

4.1 Analysis of the Interviews

Based on the interviews conducted with Metaverse experts and Metaverse-related employees of incumbents and consultants, insights were derived through inductive category creation. The interviewees were aged between 24 and 48 and of eight different nationalities. Eight of the interviewed persons were male, and two were female. The transcribed interviews were coded according to the described methodology, which led to six categories on the top level, which can be seen in *figure 2* below, namely drivers for entering the Metaverse, the current status-quo of the Metaverse, forecasts about the future, perception of 2nd movers, Metaverse choice and general opinions about the Metaverse, which can be considered as the category for unrelated codes. In the figure below, the top-level categories and the sub-categories can be seen if the category was mentioned ten times or more often. Smaller categories were aggregated with others for simplicity.

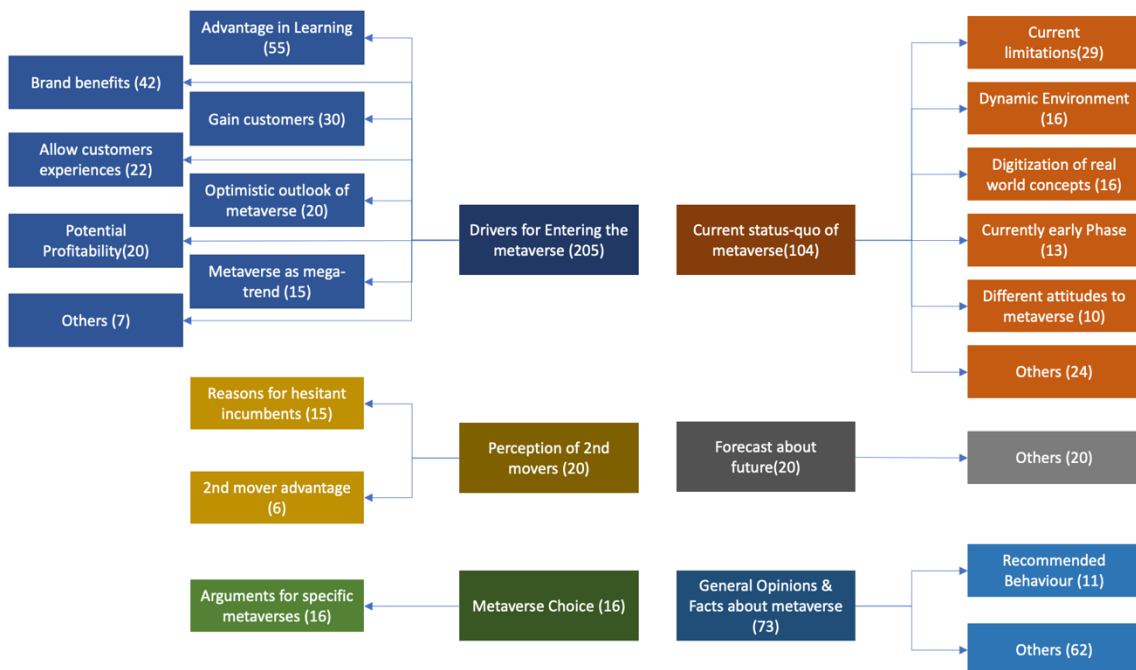


Figure 2: The top-2 levels of the Code Structure

The most frequently mentioned top-level category was “Drivers for entering the Metaverse,” with 205 mentions, as this category directly addresses the research subject of the dissertation. All relevant sub-categories of this category were analyzed individually, sub-categories of other categories were analyzed in aggregated form.

Closed Questions

In addition to the open-ended questions analyzed in this section, the interviewees were also asked closed-ended questions and responded on a 5-point Likert scale to the following statements: “Fashion companies enter the Metaverse due to short-term profitability expectations” and “Fashion companies enter the Metaverse as they see and expect competitors to do that.” The answers to these can be seen in *Figure 3*. All interviewees disagreed or strongly disagreed with the statement that companies enter the Metaverse due to short-term profitability expectations. There was significant agreement that companies enter the Metaverse because of the perception or expectation of competitors doing so.

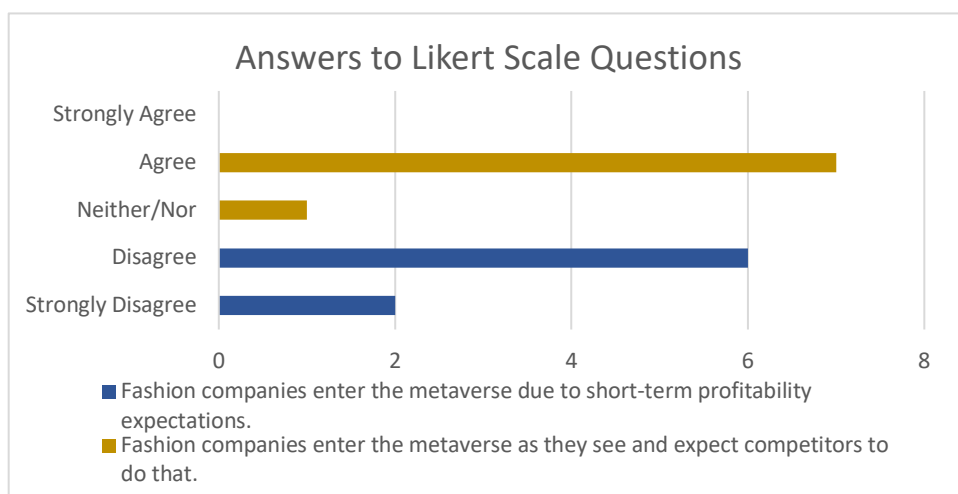


Figure 3: Answers to the Likert Scale Questions in the Interviews

Moreover, all interviewees except one believed there is some advantage for first movers when entering the Metaverse. All interviewees except one said that there is a first-mover advantage due to the experience and the learnings companies gained by early entry. There was less consensus concerning whether companies gain benefits due to preemption of resources, denied by five but approved by only two. Additionally, all experts except two expect positive spill-over effects of Metaverse stores for the brand. One interviewee saw this only for specific cases, and another one considered the current traffic on metaverse platforms as too low to impact the brand.

Advantage in Learning

As the first driver to enter the Metaverse, the learning advantage was considered the main first-mover advantage. It was mentioned by all interviewees who confirmed that there is a first-mover advantage in learning in that fast-moving environment. Entry into the Metaverse was

also considered a pilot experiment and not an entry at scale. One of the fashion managers who currently led his company into the Metaverse said:

“I think all of the brands, what we're doing is that we're learning, we're testing. We're figuring out what's the best actions to be able to do inside some of these metaverses.” (Interview D, 2022)

Furthermore, interviewees expected that new capabilities in various domains are required to succeed in the Metaverse, as the change to digital products raises many questions concerning intellectual property, accounting, currency exchange issues, and technical challenges. Those capabilities can be developed by entering the Metaverse early as the learning curve is steep in its fast-moving environment. One interviewee said, *“So obviously the sooner you tackle these problems and become aware of these problems, the more advantage you have over companies that haven't done that yet.”* (Interview B, 2022). Consequently, the learning experience is considered one of the main drivers and also a key advantage for fashion companies that develop a Metaverse presence in the early phase of the market. This was also in line with an expert: *“I think the best competitive advantage you can gain right now is knowledge compared to your competitors so that you know more about the space and how it works than others.”* (Interview I, 2022)

Brand Benefits

Companies entering the Metaverse at the current stage also expect reputation gains. According to the experts, this should happen through the increased media coverage and social media sharing of commentary, as was emphasized in interview A (2022):

“But it's like, oh my gosh, we are opening a new store at metaverse. It's much more attention. Then people will share it. It's like shared on every social media network.”

Some interviewees identified media presence and the attention gained as a major driver of many Metaverse activities, reflected in the statement of interviewee D (2022):

“..., if you look at the J.P. Morgan case- to me, it's more a PR stunt than anything else. And I think that's a lot of what's happening at the moment.”

Additionally, it is expected that the companies that enter the Metaverse can increase the perception of innovativeness and establish themselves as innovation leaders in an emerging domain, as explained in interview J (2022):

“I think that is perception for one, obviously. That they're doing something that's ahead of the times and they're trying to develop their brand image to be recognized as a company that's on the forefront.”

According to the experts, the expectation of media coverage is already paying off as interviewee G (2022) emphasizes, *“I think as far as press goes, it's paying dividends, right?”*. Furthermore,

it was mentioned 17 times that the entry into the Metaverse for many companies is a marketing activity, as was revealed by interviewee G (2022), a consultant in that area: *“They're using it as a marketing channel to connect with their audiences.”* and approved by interviewee H (2022), who is a manager in a fashion company *“So, in brief of course for this first stage it is a marketing activity.”*

Gaining Customers

Another reason to build a presence in the Metaverse frequently mentioned by interviewees was gaining new customers. According to the interviews, through Metaverse actions, brands target specific customer segments, specifically Generation Z, considered the target group of many Metaverse operations. Gen Z's are native to this environment and prefer these channels to conventional social media platforms; as Interviewee C (2022) pointed out:

“You meet the specific audience on the platform where they are natively. The young generation, they don't go on Facebook or Instagram after they come home from school, but they go on Fortnite or Roblox.”

In this way, fashion companies expect to gain an intensive engagement with the generation active on these platforms. Additionally, it is also the target for community formation to build strong connections, as interviewee H (2022) emphasized:

“This is something, as I said, is just a starting point. So, we don't want to just create hype for and to only connect the marketing side. We want to create a community.”

Allowing Customers Experiences

Furthermore, brands are aiming to use the technology for immersive brand experiences, as interviewee C explained:

“It's not a video; it's not a 2d image. It lets you connect with the brand much more as a visitor. The same way as you would go to the BMW world in Munich or to a brand experience world.”

Interviewee G (2022) continued,

“You're creating an experience that ultimately adds to your brand story so that whenever someone purchases a good from you, they have a lot more context in their mind about who you are and what it means to them.”

Finally, this experience was considered essential for fashion in general, as shown in interview A (2022) *“I think one motivation is definitely the experience because, in luxury, it's all about the experience.”*

Optimistic Outlook

Commonly, the expectation of a prosperous future drives fashion to enter the Metaverse. Some interviewees considered the Metaverse a future necessity for fashion companies, and every

player in the fashion industry must build some presence on those platforms; as stated by interviewee F (2022), *“I think that all companies will have to get in the Metaverse. There is no other way.”* Others forecast a bright future where the Metaverse plays a crucial role as a potential successor of current social media platforms, as reflected in Interview C (2022)

“So I think one is, people, start understanding that the metaverse might be a new chapter of big tech platforms, where, you know, every person and every company will at some point have a presence and maybe also monetize or use it for marketing purposes.”

Potential Profitability

Eight of the ten experts mentioned that fashion companies see the potential for increased profits through Metaverse operations in the future. At the same time, all interviewees acknowledged that fashion companies are not entering due to short-term profitability expectations, as was explained previously. Companies expect the Metaverse will create new revenue streams as fashion companies leverage their brands on a new platform. Interviewee B (2022) opined, *“My assumption is that these are going to be major revenue streams for brands in the future, in the not very far distant future.”* In addition, fashion companies have low costs for producing digital fashion products, which leads to high mark-ups; as Interviewee A (2022) pointed out, *“There are high markups because a pair of sneakers still costs 500 euros, but they don't have to be produced in Tuscany or something.”*

Companies want to participate in the Trend

Companies are also motivated by the media attention associated with the Metaverse. The interviewees frequently mentioned fear of missing out as a motivational factor for daring to enter this market. Interviewee D (2022) added, *“Once some companies entered the Metaverse, then for sure everybody else would like to start getting their feet wet inside the Metaverse to be able to understand.”* Furthermore, the experts considered the current traction for the Metaverse and NFTs a vital driver to enter that market.

Current Status-quo of the Metaverse

After analyzing the drivers for companies to enter the Metaverse, other categories will be examined. The first one mentioned 104 times was the current status quo of the Metaverse. The interviewees pointed out several factors that currently limit the impact of Metaverse platforms. Firstly, it was emphasized that the traffic in Metaverse stores is low. Only a small number of people is already active on those platforms, which leads to limited reach and decreased value for customers due to limited interactions. Interviewee G (2022) said, *“The numbers of people that are visiting those experiences are very low, like in the hundreds of thousands.”* and

Interviewee E (2022) added *“Why do you buy the clothes you want to show them to someone, if there's no one you can show them for.”*

Furthermore, there are currently technical limitations and conceptional problems like the lack of portability of assets between different Metaverses. Moreover, seven out of ten interviewees mentioned a sub-category -- “dynamic environment” -- which suggests that the current environment is rapidly changing and has an uncertain future. It is hard to forecast how Metaverse technology will evolve and which platform will become dominant in the future. The sub-code “uncertain future” was mentioned eleven times by interviewees who pointed out that it is not clear in which direction the Metaverse is going to move forward; as interviewee H (2022) emphasized, *“I think we still have to understand what will the Metaverse in the future look like?”* According to the interviewees, this inhibits potential advantages for early entrants to appropriate specific scarce resources like real estate.

Moreover, the interviewees described the current dominant stance as applying established concepts in a virtual environment. This is reflected by the approach of creating a digital version of what is known from the physical world; as interviewee D (2022) stated,

“So that's the main strategy. So a lot of strategies that you can have in real life, you can implement in the metaverse because at the end, you're trying just to create a digital twin of what you're doing in real life.”

Products are frequently copies of what is commonly known, as interviewee C (2022) explained with the example of a store,

“We know the mental model of a store, how does the store look and it's a special medium. The basic aspects are like you have walls, you walk in and there's products that you can buy.”

It was also emphasized that the metaverse is currently in its very early stages; as interviewee H (2022) said,

“We need to understand by doing and of course there will be completely wrong decision because you know, technology is very young and we still to understand the complete picture. That's the point.”

There are still many risks connected to entering the Metaverse, like choosing the best platform.

Finally, there are currently highly differing attitudes towards the Metaverse, which tends to be rare, especially in the luxury fashion industry, according to interviewee F,

“And what is very complex in this case is that there is no agreement between the luxury-maisons because we see some luxury-maisons who are actually betting on this, and they are investing, and they are trying to take the control of what's going on in the metaverse. Gucci is an example and others. And then there're others like Hermes who apparently are trying to step back.”

And those differences in conviction are also reflected in the current status quo.

General Opinion & Facts about the Metaverse

Under “General Opinions & Facts about the Metaverse”, unrelated codes were examined. The only sub-category counted ten times was “Recommended Behavior on Metaverse platforms.” In this category, interviewees suggested that companies should try to contribute to the community, as was emphasized in interview C (2022),

“So I think every company has to ask themselves what's my contribution to this space. What do I do? And why do I do it? “

Companies should cooperate with others, as interviewee E (2022) suggested, *“So I would say that the companies that are managing to co-work with people like me and with people who are blockchain natives, they have a good chance.”* and that personal presence is required as mentioned by interviewee C (2022),

“That's at least my personal conviction, that places that don't have some kind of presence of staff will not survive; they will just be very boring. Like an empty room with a couple of things to look at.”

Another important sub-category was that scarcity of NFTs is a fictional concept, dependent on the creator as it comes at no cost to produce additional pieces; as interviewee B (2022) pointed out, *“When you were thinking about NFTs in theory, there is a matter of scarcity, but I think one of the things that you're seeing now is that there is no entry bar.”* Furthermore, this category contains codes that the substance of fashion cannot be digitized, but the status function of fashion can be transferred to the digital space.

Forecasts about the Future

This category was counted 20 times and contained two essential sub-categories. Firstly, it articulates expected chances, and possibilities companies have in the future on Metaverse platforms, like direct customer interaction or meetings in Metaverse. Moreover, interviewees forecast that the prices for real estate in the Metaverse will rise in the future. Interviewee C (2022) said that:

“I guess there's pros and cons, but definitely, if you want to buy lands on Decentraland, it's rather better to do that earlier than late. I mean cheaper.”

Perception of 2nd Movers

The interviewees also mentioned specific advantages for second movers, mainly connected to the expectation of more stability and clarity in a rapidly changing environment. In interview C (2022), it was described as follows:

“At the moment everything's very fuzzy still. I think it's kind of a big wild jungle where people experiment and if you enter later, then things will be more settled in. It's going to be clearer what you can do as a business in there.”

There are also risks connected to platform choice, and there is no established *modus operandi* on how to launch on Metaverse platforms, as was described in interview I (2022):

“I think it's not always good to be the first one because then best practices and you are the pioneers, and you are investing a lot of money, and you might bet on the wrong platform. You know, nobody cares about Decentraland, but you put all your dollars into it, and everyone else is moving into other spaces. “

This also summarizes why multiple incumbents are still hesitant about entering the Metaverse for reasons ranging from risk-aversion and fear of damaging the brand to the risk of losing a specific degree of control. Interviewee D (2022) stated the risk for incumbents as follows: *“Some companies are more averse to risk, and they rather wait and understand and gather more data from how early companies are doing.”* Interviewee E (2022) emphasized the risk for established brands when incumbents enter the Metaverse, *“So there is also some risk involved of risking an analog brand for the endeavor in the digital Metaverse,”*

Metaverse Choice

The final analyzed category is the “Metaverse choice”, where different arguments for specific platforms were considered. A commonly mentioned reason to choose a particular platform was the audience that can be targeted on it, as interviewee D (2022) stated: *“I think that you can get some numbers and some demographics for the different platforms and try to see okay my demographics are gravitating more to this specific platform or to do these other platforms.”* Other interviewees mentioned specific arguments for the platform Decentraland, or The Sandbox; as Interviewee B (2022) suggested, *“I think specifically the Decentraland is kind of the only option out there at the moment if you're realistic.”*

4.2 Quantitative Analysis of the Survey

The analyzed data contained 119 observations, with 47% of those objects being female, and the average age was 23.9 with an age span from 17 to 47. Concerning the nationality of the participants, seven nations are represented, and Austria had the most significant share with 83.33% of the total number of participants, followed by Germany with 11.29%. The first step was analyzing the general perception of customers of Metaverse fashion and the Metaverse itself. In addition to demographic data, this covered questions about the current personal usage (one item), the perceived impact of Metaverse (one item), use intention of Metaverse fashion

offerings (three items), the purchase intention for Metaverse fashion (two items) and the perceived product innovativeness (three items).

A Likert scale with seven points was used to assess current usage of the Metaverse with the question “I use a Metaverse platform (Decentraland, Fortnite, Roblox, The Sandbox, ..) frequently”. The median answer was 1 (strongly disagree), and the mean value 1.65. Only 9.3% of the total number of users answered with values above four, which shows a meager adoption rate. Still, the span ranged from 1 to 7. Secondly, the expected prospects of the Metaverse were surveyed with a Likert-scale attached to the statement, “The Metaverse is the means of communication of the future,” where the median was 4 (neither agree nor disagree) and the mean was 4.05, which shows that customers are indecisive at the moment about how the Metaverse will develop in the future.

The three items concerning the usage intention of customers surveyed with Likert-scales were “I would use the Metaverse for shopping clothes.”, “I would use services of fashion companies provided in the Metaverse” and “Interacting with fashion companies in the Metaverse is something that I would do.” The results strongly correlated and had means between 3.81 and 4.05. This mean was used as an index for usage intention in further analysis. It had a median of 4.33 and a mean of 3.93. The values were evenly distributed along the scale as they ranged from 1 to 7, with the Q1 at 2.6 and the Q3 at 5.33. This implies that potential customers have no homogenous intention to use Metaverse services provided by fashion companies.

Purchase intention was measured by the self-assessed likelihood and possibility of participants purchasing digital fashion within the next year on a scale with seven steps from unlikely (1) to likely (7) respectively, and from impossible (1) to possible (7). The mean for likelihood was 2.66, which means that, on average, customers consider it slightly unlikely that they would purchase a piece of Metaverse fashion within the following year. In this question, 29.88% were on the very left of the scale, which means they consider it completely unlikely. Similarly, regarding the possibility of purchase, the mean value was 3.57, close to the center of the scale (4), showing uncertainty. In Appendix B on *Figure 11* box plots representing these variables are depicted.

Perceived product innovativeness of Metaverse fashion was indexed based on the mean of three survey items “Fashion in the Metaverse is totally new to the market,” “Fashion in the Metaverse represents a new product category for consumers,” and “Metaverse fashion is innovative.” All these items shared the Q1, the median, the Q3, and the maximum value, and their mean differed

by only 0.25. The median of this calculated index was 5.0 and the mean 4.93, and it ranges from 1.67 to 7. This shows that customers slightly agree on average that Metaverse fashion is innovative, but they also have divergent opinions.

A cluster analysis was conducted to find potential customer groups in the survey data and identify specific patterns. Thus, a principal-component analysis and a k-means analysis were used. The k-means cluster analysis did not lead to any clear replicable clusters, and repeated runs of the analysis led to significantly different results. A visualization of the detected clusters can be seen in *Figure 4* above. In the k-means analysis, four clusters were applied as a significant amount of the differences in the data should be among those groups, as *Figure 9* in Appendix B depicts. Still, as it can be seen in the figure below, the clusters cannot be distinguished, which led to the conclusion to not further elaborate on the k-means cluster. Additional analyses with different numbers of clusters did not lead to more significant outcomes.

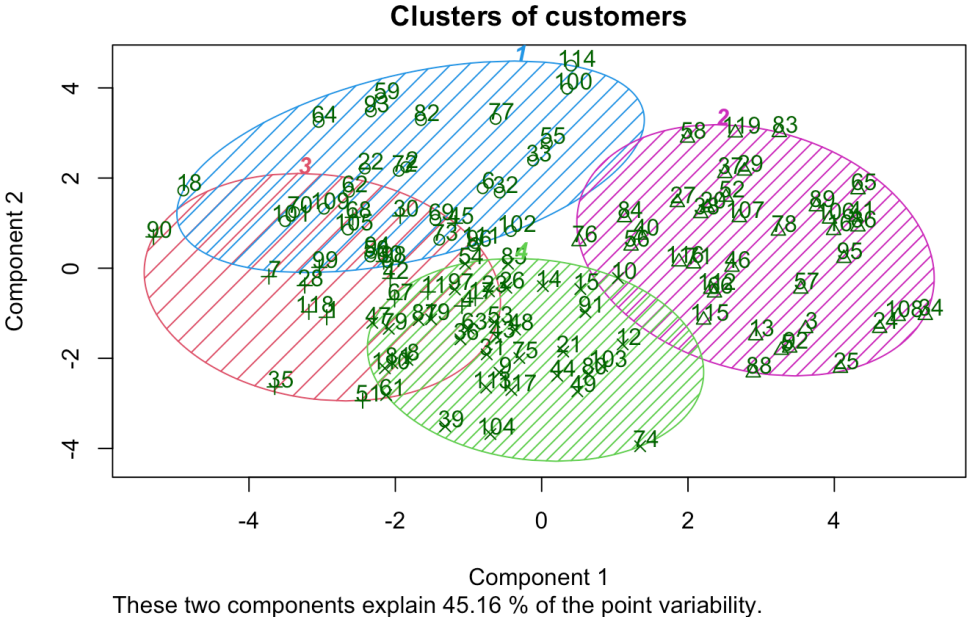


Figure 4: K-means Clustering with four Clusters

Subsequently, a principal component analysis was conducted based on the survey data in the next step. It resulted in a principal component (PC) 1, which explained 34.93% of the data variance, and a PC2 explained 18.44%. Five components were required to achieve a cumulative explanatory factor of 84%. As it was the target to identify clusters, data points were plotted for the two most important factors, but no clear clusters could be found to use for further analysis. The graph of the cluster analysis can be found in the appendix and shows PC1 and PC2 as well as the vectors of the individual variables and every observation mapped in the matrix.

After the analysis of the first part, data of the two scenarios was examined as described in the methodology, which means that a first step recorded the perceived innovativeness of the two scenarios and plotted them against each other with two density curves.

On those density curves, the PFI scores of both scenarios do not have a skew on either side of the scale. While the density curve of the scenario one is oriented to the left of the scale, which refers to a lower value and is reflected by a mean of 3.37 and a median of 3.29, the curve of scenario two is oriented to the right side of the scale with a mean of 5.26 and a median of 5.43. The peak of the density curve for the first scenario is between three and four, which means that these were the most mentioned values, compared to scenario two, where the density curve peaks between five and six.

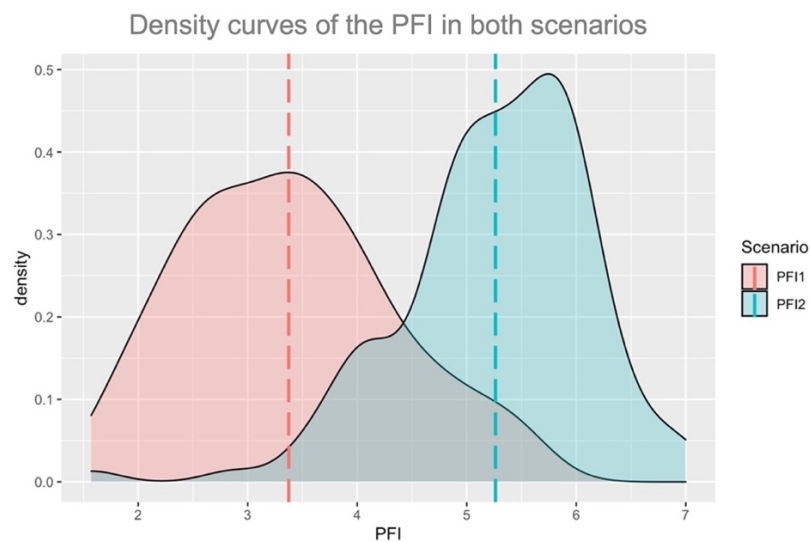


Figure 5: Density Curves of the PFI in both Scenarios

In the next step, to prove that the difference between the two samples is significant, a t-test was conducted. As two scenarios were recorded for every participant of the survey, a paired t-test was used. Based on the difference observed in *Figure 5* above and in the means of the two scenarios, as a null hypothesis, it was assumed that there is no difference in the perceived firm innovativeness between the two scenarios, and as the alternative hypothesis that entry into the Metaverse increases perceived innovativeness of the firm. The t-test results in the values mentioned in *Table 3* below.

Results of t-test		Results of Cohens D	
t	t = -14.214	d	1.302991
df	118		
p-value	< 2.2e-16		
mean difference	-1.888555		

Table 3: Results of t-test and Cohens D

The mean difference indicates the increase from scenario one to scenario two is, on average, 1.88 on a one to seven Likert-Scale. Considering that the p-value is smaller than 2.2e-16, the null hypothesis can be discarded under a confidence level of 99.9% and replaced by the alternative hypothesis -- that entry into the Metaverse increases the perceived innovativeness of the entering company. A Cohens D was calculated in order to classify the magnitude of the observed effect, which led to a d of 1.37, which refers to a strong impact, according to Cohen (2013).

The delta between scenarios one and two was analyzed in the final step. Its mean value was 1.88, and its median 1.86. It shows a standard deviation of 1.38, which can be considered high based on values ranging between one and seven. Deviations in that dataset were analyzed with a regression table with the dependent variable delta of PFIs and the independent variables age, Metaverse usage, usage intention of Metaverse, forecasted future of Metaverse, and perceived product innovativeness of Metaverse fashion. The results of the regression can be found in *Table 4* below. The used model shows an R-squared of 0.1047, which implies that variations in independent variables can explain 10,47% of variations of the dependent variable in the regression model. This proportion is considered as low. Additionally, the adjusted R-squared of 0.0651 leads to the same conclusion. Furthermore, the F-statistic is at 2.643.

	Multiple R-squared:	0.1047	Adjusted R-squared	0.0651
	F-statistic	2.643	Residual standard error	1.401
	Estimate	Std. Error	t value	p-value
Age	-0.008683	0.036197	-0.240	0.81086
Metaverse Usage	-0.148919	0.105698	-1.409	0.16161
Metaverse Forecast	-0.065873	0.105928	-0.622	0.53529
Use intention	0.105151	0.094162	1.117	0.26649
Product Innovativeness	0.381768	0.129348	2.951	0.00385**

Table 4: Results of the Regression Analysis concerning the PFI-Delta

The only independent variable that significantly impacts the delta of the PFIs between the two scenarios is the perceived product innovativeness of Metaverse fashion. It has a p-value of 0.00385, which is highly significant under a confidence level of 99%. Consequently, it can be concluded that the general perception of the innovativeness of a specific technology has a moderate impact on perceived firm innovativeness when a company engages with that specific technology. More precisely, if a survey participant in the data set ranked innovativeness of Metaverse on the 1-7 Likert-scale one unit higher, the delta of perceived firm innovativeness between scenario one and scenario two grew by 0.38 on average.

None of the other independent variables of the model significantly impacted the dependent variable. Based on the low R-squared and the insignificant independent variables of the model, it can be concluded that major differences in the delta of perceived firm innovativeness between the two scenarios cannot be explained by the model and are caused by other external factors.

5 Discussion

This discussion is split into two parts. The first is a general discussion in the form of a triangulation of literature, quantitative data from the survey, and qualitative data from interviews. The second part will develop discussion scenarios for potential future pathways.

5.1 General Discussion

Companies' motivations to enter new markets were described in the literature along the dimensions of whether the entry is for strategic reasons or short-term profitability gains and whether the entry is independent of competition or in anticipation of competitor actions (N. Kim et al., 2015). The interviewees were also asked to agree on a 5-point Likert-scale from “strongly disagree” to “strongly agree” to the statements “Fashion companies enter the Metaverse due to short-term profitability expectations” and “Fashion companies enter the Metaverse as they see and expect competitors to do that.” Those statements can be seen as proxies for the two dimensions discussed above. Consequently, answers from experts were plotted in *Figure 6* below, whereas the bubble size represents the frequency of specific positions on the map.

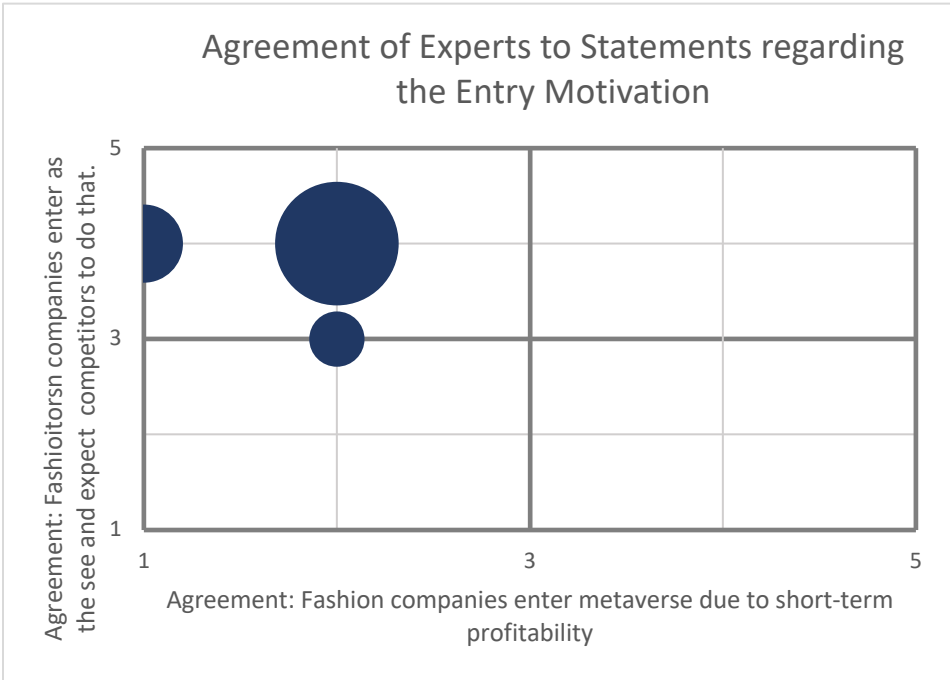


Figure 6: Agreement of Experts regarding the Entry Motivation into the Metaverse

Experts disagreed with the statement that companies enter due to short-term profitability and assumed that the reason is more strategic. At the same time, experts agreed that companies enter because they see and expect competitors to enter, opposing Kim et al. (2015) that incumbents

enter new markets independently from their competitors. Additionally, Kim et al. (2015) added that companies act for strategic reasons and in competitor anticipation under technological uncertainty. This might be what can be observed in the Metaverse as the interview analysis led to the result that perceived uncertainty is high concerning the new technology as interviewee D (2022) pointed out, *“At this moment, we're not sure which one is going to be the real Metaverse that is going to survive this whole thing.”* Consequently, the outcomes of the interviews support the literature that under technological uncertainty, companies enter markets for strategic reasons and are competitor-focused. Experts agreed that short-term profitability does not drive the current market entry. This is also reflected by the current low adoption among customers, as 91 % of survey participants slightly disagreed, disagreed, or strongly disagreed with the statement that they frequently use Metaverse platforms.

Moreover, survey participants were somewhat skeptical about purchasing digital fashion on a Metaverse platform. The median was 2.0, and the mean was 2.64 on a one to seven scale from unlikely to likely to buy Metaverse fashion within the following year. That also agrees with experts' perception that we are still in the early phase of the Metaverse, and mass adoption still has to occur. Moreover, Min et al. (2017) considered that market size is not as crucial in dynamic high-tech markets as it is in the established ones due to the rapid changes in market structure and the possibility of developing capabilities through engagement with the industry. This can also be applied to the Metaverse and is reflected in the interviews. The interviewees considered that learning created an edge which was the key competitive advantage derived from entering early, given that the market is still in its early stages and highly dynamic. Additionally, the customer survey proves that the current adoption rate and willingness to purchase products in the Metaverse is still low, making the market size unattractive as an entry driver.

Furthermore, interviewees concurred that the Metaverse and clothes for digital identities could become a major revenue stream for fashion companies in the future, in addition to the current business of selling apparel in the real world. This corresponds to diversification into a new domain. Potentially, uncertainty is a driver of diversification, according to Hoang et al. (2021), a phenomenon that is more prevalent after the pandemic and the Russian invasion of Ukraine. Still, no evidence for connecting market entry to those historical events could be found in the interviews.

An alternative reason for entering the Metaverse and participating in events on digital platforms mentioned by various experts was media attention and an improved image. In the survey

especially, the impact on perceived firm innovativeness was investigated by comparing two scenarios wherein one, the company enters the Metaverse and has a positive attitude towards it, and in the other, the company does not. The t-test showed the significant impact of entry on the perceived innovativeness, which also reflects the perception of interviewee G (2022) that they currently occur losses, but it pays off in media attention, as he pointed out in the interview:

“I think that they're doing this currently, as a form of loss leader, with the hopes that it's going to pay off further down the road. I think as far as press goes, it's paying dividends, right?”

A study by Kunz et al. (2011) showed that perceived firm innovativeness has a significant impact on customer loyalty, cognitive customer satisfaction, and customer beliefs that the firm performs tasks reliably and appropriately. Consequently, perceived firm innovativeness is a credible driver for corporate action.

The interviewees were also surveyed about their perception of the reasons for two strategies that can be observed in the Metaverse right now -- the building of flagship stores and sales through licensing. Manlow & Nobbs (2013) considered customer interaction and building engaging experiences the key advantage of flagship stores. This is also reflected in the interviews where the possibility of creating immersive customer experiences and interactions with the brand were taken to be essential drivers to enter. Interview J (2022) asserted: *“I think this is a technological opportunity to engage in a deeper way with potential consumers and also create a certain ongoing dialogue with those consumers through technology.”* Furthermore, as described by Agarwal & Ramaswami (1992), the choice of strategy between wholly-owned subsidiaries connected to more risk and no significant investments associated with lower risk seems to follow the same framework as in the offline world. Interviewees considered the possibility of licensing as a reasonable approach to gain experience and cautiously test the market. The key advantages were emphasized in interview E (2022): *“I think this is quite smart because they don't put a large stake on the metaverse, so they minimize the risk and still put a finger on it.”*

In the next step, the sources of potential first-mover advantage were contrasted with the outcomes of the interviews. Liebermann & Montgomery (1988) defined three sources of possible first-mover advantage: technological leadership through learning, the pre-emption of resources, and the buyer-switching costs. The corporate learning experience was considered a dominant driver for fashion companies entering the Metaverse, which was expected to become a competitive advantage. Concerning pre-emption of resources, the scarcity of NFTs was seen as a strategic choice. Furthermore, the interviewees had opposing opinions on whether the

prices for digital land will rise and whether competitive advantage can be derived from securing scarce resources in the digital sphere in an early phase of the market. Buyer switching costs were not considered a major advantage for early entrants. Still, one interviewee considered the lack of portability of digital assets between different Metaverse platforms as a constraint for customer adoption. To sum up, the primary source of competitive advantage of first movers that can be found in the literature and the empirical data was a learning edge. How strategic choices impact the future depends on contingencies in the environment and will be analyzed in the next chapter.

5.2 Scenario Development

As the experts pointed out, Metaverse fashion is in its early stages, and the commitment of companies to a presence is going to pay off later; scenarios will be used to show various pathways of the future that lead to different outcomes for companies that have decided to enter the Metaverse in an early stage. Therefore, the commonly used 2 x 2 matrix method will be used, as it is widely accepted, easily applied, and circumvents the simplified approach of assuming worst and best-case scenarios (Ramirez & Wilkinson, 2014). The most crucial factors influencing the future success of the Metaverse are (1) the adoption behavior of customers and whether mass adoption is happening as the current market was considered undersized by experts and (2) the development of the underlying technologies as the current status quo was considered as a major limitation, especially for fashion like Interviewee H (2022) said, *“On the flip side is that the Metaverse and web3 is not a mature technology.”* Consequently, these two dimensions are considered to define whether current investment into the Metaverse will pay off and lead to scenarios described in the next step.

Metaverse fashion as short-term media hype

This scenario will happen if neither customer adoption nor technological development becomes true. The Metaverse does not become a significant force like interviewee C (2022) anticipated *“...people start understanding that the Metaverse might be a new chapter of big tech platforms, where, you know, every person and every company will at some point have a presence and maybe also monetize or use it for marketing purposes.”* Learning on the new platform would not happen, and only advantages already occurring with a current presence would persist -- mainly marketing and public relations gains as well as increased perceived firm innovativeness, which already can be considered as a competitive advantage in the present according to the customer survey and the significant results. Additionally, some companies have already profited from gaining new customers on various platforms, where a young target audience is

mainly active. Interview C emphasized, *“The young generation, they don't go on Facebook or Instagram after they come home from school, but they go on Fortnite or Roblox.”* Metaverse activities would remain marketing for a particular target group but would not become the expected digital revenue stream. Companies that deployed a “wait-and-see” strategy towards the Metaverse profit from this scenario as they saved on the investment needed for building a presence in the Metaverse. Interview F (2022) stated, *“I think that we still need to invent, and I'm sure they are searching for the best business model to get in because I'm not aware of the business model that they should follow to get in.”*

Metaverse Fashion as the Next Big Thing

In this scenario, technological progress continues, and Metaverse platforms develop rapidly. Additionally, mass adoption of customers follows, which turns the Metaverse into a necessity for fashion companies. Consequently, companies that entered the Metaverse early and bet on this scenario can leverage advantages gained from developing skills compared to laggards joining later; as interviewee G (2022) mentioned, *“So the lessons that they learned today are going to help them to be very, very successful in the future as a laggard to try to figure it out.”*. Furthermore, if the future takes this route, the Metaverse will become a significant revenue stream for companies through the sales of digital fashion, which was emphasized in interview B (2022), *“My assumption is that these are going to be major revenue streams for brands in the future, in the not very far distant future.”* Consequently, this would be the scenario where risks taken by first movers pay off and significant competitive advantage arise due to skills developed skills by companies that entered early. The rapid development of technologies could also benefit second movers when they start their operations in the Metaverse at a point when technological possibilities of new platforms and the desires of customers are more evident.

Metaverse as an Underdeveloped Platform for Crowds

When customers discover the Metaverse as their new platform for communication and adopt, but the technology does not develop leads to a scenario where the status-quo remains, and major interactions do not take place highlighted by interviewee C (2022),

“We only see a very small portion of that yet because of technologies are not there to have deep personal interactions there because it's not animated. Not like face tracked well enough and things like that, but I think that's when it's going to become really interesting.”

Consequently, the Metaverse remains a platform for marketing purposes where customers can be met, but it does not become the immersive experience that early entrants anticipated. Thus,

first movers can leverage capabilities developed for marketing purposes, receiving public relations benefits for entering early, but little else.

Metaverse Fashion as a high-tech Niche Market

In this scenario, the technology required to use and facilitate the Metaverse like virtual reality, graphics processing, and face tracking, evolves rapidly. Still, customers do not take to the new technology, and mass adoption fails to materialize. Consequently, the Metaverse remains a niche market for a specific audience, where immersive experiences are possible and lively interaction happens. Hence, some current limitations of the Metaverse persist, like the missing traffic as discussed by interview E (2022), “*Why do you buy the clothes you want to show to someone if there's no one you can show them.*”. Furthermore, low customer adoption inhibits the large market for fashion envisaged by early entrants. First movers can use their advantage in learning from early entry, but this does not materialize into their expected advantage. Laggards do not face any significant advantage either.

Probabilities and Discussion of Scenarios

After introducing the four distinct scenarios and the expected outcomes for fashion companies in each of those, the scenarios will be discussed, and probabilities qualitatively assessed. In *Table 5*, below scenarios (mass adoption and technical development), their probabilities, and the essential factors that impact probabilities are listed.

Scenario	Metaverse fashion as short-term media hype	Metaverse fashion as the next big thing	Metaverse as an underdeveloped platform for crowds	Metaverse fashion as a high-tech niche market
Mass adoption	No	Yes	Yes	No
Technological Development	Low	High	Low	High
Probability	30%	35%	10%	25%
Factors that increase the probability	Low adoption willingness, low usage of the metaverse, expensive equipment, low willingness to pay for digital products	Support by the majority of experts, Current customers as innovators & early adopters (Rogers et al., 2014), unused technological possibilities	Current status-quo of platforms, expected mass adoption by experts, Limited access to hardware	Perception of customers of the metaverse, Available unused technology
Factors that decrease the probability	The commitment of fashion incumbents and industry experts	Low adoption willingness of customers, experience with Second Life	Technology also hinders customer adoption; Increased market leads to more companies joining	Technical advancement would eliminate some reservations; the young generation is used to technology

Table 5: Summary of the Scenarios and their Probabilities

To assess the probabilities of the individual scenarios, the base case having the same likelihood (25%) was first assumed. Then these were adjusted according to the findings in the literature, insights from expert interviews, and the customer survey results. The first scenario was, “Metaverse fashion as short-term media hype” would be realized if no further development of the Metaverse is happening neither in terms of its popularity nor its technical capabilities. A factor that supports this is the skeptical attitude of customers towards adoption behavior in the survey, where more than 50% of customers think it is unlikely and impossible that they will buy Metaverse clothing within the following year. Customers support this skepticism by having a low adoption rate, as do experts who see missing traffic as a major limitation of the current Metaverse. Furthermore, experts considered the required equipment for end-users for improved experiences too expensive:

“I don't think they have a sustainable technology stack because it's extremely expensive. What they're doing, only big brands for a small group of people can do that.” (Interview C, 2022)

Furthermore, that scenario is supported by the experience of Second Life, where customers never showed significant willingness to pay for digital goods (Haenlein & Kaplan, 2009). Opposing this scenario, experts were convinced that the Metaverse would shape the future of fashion. Additionally, many notable companies are committed to contributing to the space and are already building a presence in the Metaverse (Moy & Gadgil, 2022). Also, the technical advancements of recent years, like NFTs, enable ownership in the digital space (O'Dwyer, 2020), and new technologies, like mixed reality (Mystakidis, 2022), allow for a more enhanced experience. Consequently, this scenario was assigned a probability of 30%.

Secondly, the scenario “Metaverse fashion as the next big thing” was forecasted by most of the interviewed experts, especially by practitioners who have become involved in the Metaverse. Interviewees referred to the current customer base on those platforms as innovators and early adopters, in accordance with Rogers et al. (2014), which implies that other customer segments are expected to follow. Some considered the connection to that group specifically as an advantage for early entrants:

I'd like the same way as you have some companies had a website early or an Instagram account early and other stuff. So what's the advantage. I have to differentiate now: the advantage go early is definitely to be connected to a group of leaders that form the space and grow in impact over time. (Interview C, 2022)

Moreover, technical enhancements will likely improve the Metaverse from where it is now. Still, the hardware is not yet distributed among the customers to bring these into use, according to interview C (2022). Counterarguments against this scenario are the low self-assessed

possibility of customers purchasing products in the Metaverse and the experience with the platform *Second Life*. This never became a significant market due to the lack of willingness to pay for digital products and mass adoption, which failed to materialize (Haenlein & Kaplan, 2009). These factors also drove big brands off the platform. This scenario is assigned a probability of 35% based on the factors above.

The third scenario, “The Metaverse as an underdeveloped platform for crowds,” is facilitated by the present state of the technology, which still shows significant shortcomings and experts' opinions that mass adoption will follow. According to the interviewees, there is also the problem of accessibility of technology due to high prices and other factors that might impede the technological advancement of platforms. In contrast, if customers start using Metaverse platforms in large numbers, contrary to the survey results, more companies will join as the economic value of having a presence would increase. Additionally, one of the main weaknesses of Metaverse platforms which has diminished their value for companies is missing traffic. Another factor opposing this scenario is that the technology needs also weaken customer adoption. Consequently, this scenario was considered to have a probability of only 10%.

The last scenario, “Metaverse fashion as a high-tech niche market,” is supported by the already emerging technological capabilities in virtual and mixed reality (Mystakidis, 2022) and the high-priced hardware products already available for premium experiences according to the interviewees. Moreover, this also reflects the survey results, where customers considered that the Metaverse is a highly innovative platform. Still, they are not willing to purchase any available digital products there. Opposing this is the fact that technical enhancements of the platform would eliminate some of the reservations currently entertained by customers and companies regarding entering the Metaverse, according to interviewees. Additionally, the younger generation is used to exposure to high-tech 3D worlds, according to experts and the literature, which makes adoption likely. Consequently, the factors supporting and opposing the scenario balance out, which leads to a probability of 25%.

6 Conclusion and limitations

6.1 Conclusion

Based on the literature review, the expert interviews, and the survey, the main motives that drive fashion companies to enter the Metaverse at this current stage are the expectation of learning and developing capabilities in that new domain; the chance to establish a new revenue stream in the future; the possibility to gain new customers; allowing for customers experiences; participation in a megatrend with an optimistic outlook; and gaining reputation and attention. These motivations exist in a context where adoption among customers and the likelihood of buying are still meager.

Early entries are more motivated by long-term strategic objectives than short-term profitability goals. Thus, the current market size, which is still small, plays a minor role. Additionally, the perception and anticipation of competitors entering these platforms is a catalyst factor for fashion companies. While most of the motives are based on the expectation that the technology will develop and mass adoption of customers will follow, the benefits of increased perceived firm innovativeness and the media attention gained are already relevant in the present. Companies seeking advantages from entering early need the technology to mature for the market to develop and grow.

6.2 Limitations

The expert interviews were conducted with practitioners of companies already engaging in the Metaverse and with consultants facilitating ways for incumbents to enter the Metaverse. This might lead to a selection bias since the experts were invested in the Metaverse and had a certain commitment to that technology.

The survey was conducted with a homogenous group that answered the survey based on their interest in research in Metaverse, which limits the generalizability of the outcomes. Especially in the first part of the quantitative findings, user groups were built according to the willingness to adopt and the willingness to purchase. Different educational backgrounds could impact the attitude towards the new technology. In the second part of the survey, the impact of the Metaverse entry on the perceived firm innovativeness was measured. This result should remain valid, but potentially cultural background, level of education, or other factors could moderate the effect of the independent variable on the PFI.

6.3 Theoretical Contributions

As described in the introduction, the Metaverse is a growing topic that has caught the public's attention. This dissertation addresses managerial decision-making in this novel domain, contributing to knowledge about market entry into the Metaverse for fashion companies. Furthermore, the dissertation has tried to link various disciplines of strategy research to the entry into the Metaverse, including market entry strategy, entry motivation, and first-mover advantages. These serve as a basis for further research on more specific topics.

The survey conducted unpacked current perceptions of the Metaverse and showed the impact of entry on the perceived firm innovativeness, which can be seen as a contribution to theoretical knowledge.

6.4 Practical Contributions

As the Metaverse is considered relevant for the fashion industry by both consultants and interviewed practitioners, it behooves firms to develop an approach toward this emerging phenomenon. This dissertation implies that the market is still in its infancy, and critical developments must occur, such as the scaling of users, if the Metaverse is to have the impact forecasted by experts. Managers can use the drivers for fashion companies to enter the Metaverse to make their own assessments. They can consider whether factors like the learning experience, brand benefits generated, immersive experiences for customers, etc., warrant adoption. Early movers might gain an edge from learning, leading to insights to refine a firm's strategy. Furthermore, the survey about the impact on the perception of firm innovativeness is valuable corporate intelligence.

Managers of fashion companies can use the scenarios to ponder whether an entry into the Metaverse in its current stage of development is advisable. They can use the scenarios to define future expectations and act according to the potential outcomes sought. The scenarios could build the basis for preparing a possible plan.

6.5 Further Research

To better understand the impact of the Metaverse on the industry and forecast developments in the fashion industry, more research about adoption behavior and especially the willingness to pay for digital fashion has to be performed. Experts considered the market in the early phase, and customer adoption was one of the main factors for further development. It would be valuable to analyze the drivers for customers to enter the Metaverse and the factors that

facilitate and impede the adoption of this new technology. Moreover, as the dissertation suggests, the Metaverse is heavily used for marketing purposes. Potential research could focus on marketing effectiveness and the impact on specific target groups like Generation Z to investigate other use cases for fashion in the digital world.

Furthermore, research should investigate the actual business impact of Metaverse activity for companies, which becomes even more interesting when Metaverse keeps developing, and business cases are created on the platforms.

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8 Appendices

8.1 Appendix A: Customer Survey

Part I (demographics) & Part II

Category	Question	Answers	Source
Demographics	What is your gender?	Female/Male/Others	
	How old are you?	Open Questions	
	What is your nationality?	List of Nations	
Personal usage	I use a metaverse platform (Decentraland, Fortnite, Roblox, The Sandbox, ..) frequently.	Likert-Scale (1-7)	(Cheng et al., 2006)
Future Prospect	Metaverse is the means of communication of the future.	Likert-Scale (1-7)	(Gebauer et al., 2016)
Use intention	I would use the Metaverse for shopping clothes.	Likert-Scale (1-7)	(Bélanger & Carter, 2008)
	I would use services of fashion companies provided in the Metaverse.	Likert-Scale (1-7)	(Bélanger & Carter, 2008)
	Interacting with fashion companies in the Metaverse is something that I would do.	Likert-Scale (1-7)	(Bélanger & Carter, 2008)
Intention to Purchase Product	Please place an “X” next to the descriptor that best describes your intention to purchase digital fashion in the Metaverse in the next year:	Unlikely – Likely Impossible – Possible	Fu & Elliott, 2013)
Product Innovativeness (Metaverse Fashion)	Fashion in the Metaverse is totally new to the market.	Likert-Scale (1-7)	(Fu & Elliott, 2013)
	Fashion in Metaverse represents a new product category for consumers.	Likert-Scale (1-7)	(Fu & Elliott, 2013)
	Metaverse fashion is innovative.	Likert-Scale (1-7)	(Fu & Elliott, 2013)

Table 6: Questions of the Survey

Part II: Scenarios

Anonymized newspaper articles were used as stimuli in a research schedule according to Kamins & Alpert (2004); afterward, the questions according to Kunz et al. (2011) were asked to each statement individually.

Here are the statements:

Statement 1:

The CEO said that the metaverse could become a business opportunity, but “we have to be wary of bubbles” and “we have to sound a note of caution.”

As the luxury industry takes center stage in the growth hopes of the metaverse, many brands are making plans to turn their real-world status into digital profits.

For now, the company is focused on the real rather than the virtual, said the CEO during the company’s earnings call. “At this stage, we are very much in the real world, selling real products,” he said. “We are not interested in selling virtual sneakers for 10 euros. We’re not into that.”(Frank, 2022)

Statement 2:

The CEO said that the fashion brand is chasing opportunities in the metaverse as a way to attract younger shoppers.

He said consumers can already buy the company’s digital apparel and make a virtual visit — or even have a virtual coffee — at the company’s Madison Avenue store. He said the retailer is considering whether to buy real estate in that digital world, where e-commerce, gaming and social media collide.

Plus, the CEO said he’s personally participating: He already dressed his avatar in a rugby shirt. “One of our strategies is to win over a new generation and the new generation is there. So we have to be there,” he said. “There are a lot of parallels actually between the metaverse and our vision because we are not a fashion company. We are in the dreams business.” (Repko, 2022)

Please indicate for the following statements on a scale from strongly disagree to strongly agree where you stand. (Kunz et al., 2011)

1. This company launches new products and creates market trends all the time.
2. This company is very creative.
3. The company is dynamic.
4. This company is an advanced, forward-looking firm.
5. The company is a pioneer in its category.

6. The company constantly generates new ideas.
7. The company has changed the market with its offers.

8.2 Appendix B: Various additional Graphs and Statistics

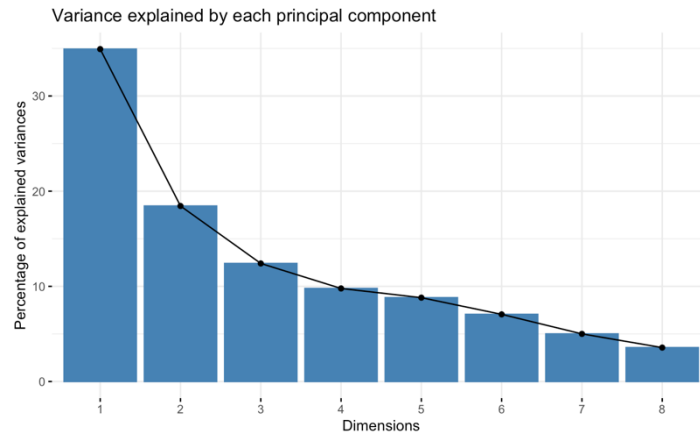


Figure 7: Explanatory value of principal components

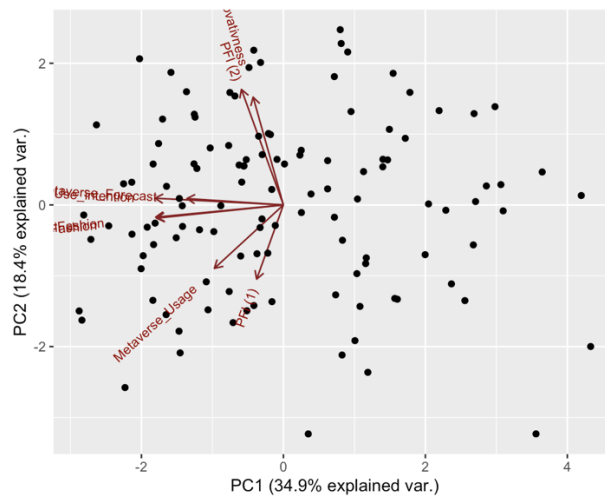


Figure 8: Clustering with the PCA-method

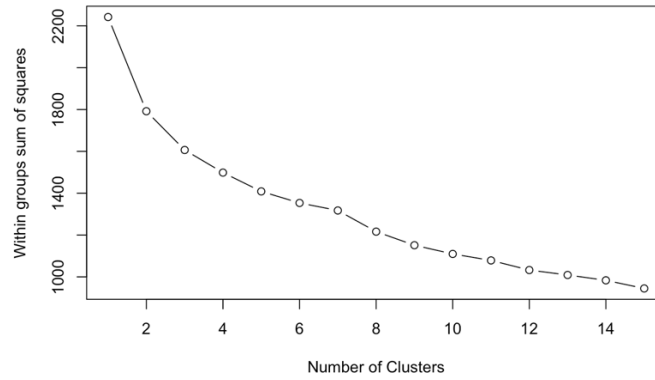


Figure 9: Graph for Cluster Choice in k-means

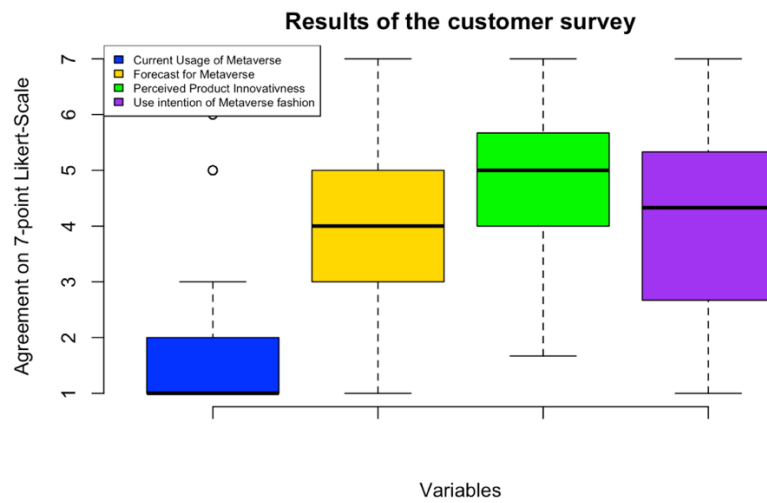


Figure 10: Box plots of four Variables of the Customer Survey

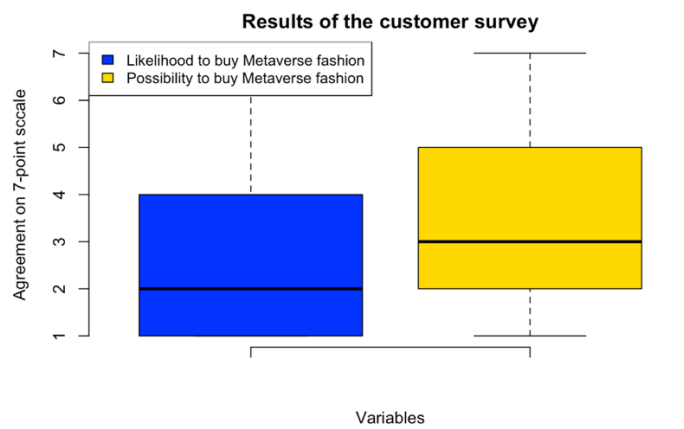


Figure 11: Box plots of Likelihood and Possibility to buy Metaverse Fashion

8.3 Appendix C: Interview A

Age: 24

Occupation: Collection merchandising specialist

Country of origin: Austria

SL	What do you think is the motive for fashion companies to enter the metaverse?
A	<ul style="list-style-type: none"> • There are different motives for every company. • Experience for customers is similar to a store, and in the Metaverse, it can be replicated online • They gain access to the young generation, which is essential for fashion.
SL	What is the advantage for companies who entered the metaverse compared to companies who did not enter the metaverse?
A	<ul style="list-style-type: none"> • companies want to test and learn • target a new group of people • high markups for virtual fashion
SL	Do you think it's an advantage to enter the metaverse early for fashion companies?
A	<ul style="list-style-type: none"> • Yes, as you can learn earlier, competition might be behind. • It is a fast-moving environment, where a few weeks can be a huge learning advantage.
SL	Do you think fashion avenues will emerge, and will it be a competitive advantage to have stores on those fashion avenues early?
A	<ul style="list-style-type: none"> • More and more brands are opening their stores in the Metaverse. • You can walk through stores, so it makes sense to have them located next to each other • It takes time because it has to be frequented
SL	What is the advantage of opening a big flagship store in a metaverse?
A	<ul style="list-style-type: none"> • everybody can visit it from all over the world. • you can have the shopping experience
SL	Do you think there's also a positive spillover on the brand if you open up an online flagship store?
A	<ul style="list-style-type: none"> • everybody will talk about it • A lot of media more attention. • shared on every social media network.
SL	What is the reason for brands selling in the metaverse but without running a store there?
A	<ul style="list-style-type: none"> • they are not willing to take the risk • good way to try but without taking the risk

Table 7: Summary of Interview A

8.4 Appendix D: Interview B

Age: 34

Occupation: Digital creative and entrepreneur at the intersection between business, fashion, and metaverse

Country of origin: Israel

SL	What do you think is the motive for fashion companies to enter the metaverse?
B	<ul style="list-style-type: none"> • revenue and market dominance. • marketing projects • brand positioning • customer acquisition.
SL	What is the competitive advantage for companies who entered the metaverse compared to companies who did not enter the metaverse?
B	<ul style="list-style-type: none"> • Brand awareness within early adopters in web3 • Innovative appearance • Makes clear the kinds of challenges that they face and gives an edge in learning
SL	Is there a specific customer group targeted with those measures, or is it broad to society?
B	<ul style="list-style-type: none"> • The perception is that they target a younger audience • A lot of the early adopters of blockchain and digital currencies are also from Gen • Depends on the type of metaverse the company engages • Deployed like advertising budgets
SL	Do you think it's an advantage to enter the metaverse early for fashion companies? What is the advantage?
B	<ul style="list-style-type: none"> • Based on the assumption that it is going to be a huge industry, yes • Companies that enter have more in-house expertise and less need to buy their way into this space • If companies enter depends on their forecast of the future.
SL	Do you think there is an advantage in learning?
B	Yes!
SL	Do you think it will be advantageous to be there early and secure scarce resources as an early mover?
B	<ul style="list-style-type: none"> • NFTs lead to scarcity by default • Scarcity was also available on central platforms but with different governance • Everybody can issue NFTs at zero cost • NFTs lead to more importance of the brand • Land on Decentraland or The Sandbox is very • Everybody wants a good location
SL	Why do fashion companies choose specific metaverses? Is it possible that next year, there's another new Decentraland, which is like the dominant metaverse?
B	<ul style="list-style-type: none"> • Decentraland is the only option as easy to enter • Metaverse platforms still have a low graphic quality • No download is required for Decentraland, and it is accessible to everybody • Gaming platforms (Fortnite, Roblox, ..) have strict gatekeepers for • Fashion market on metaverse platforms is still tiny

SL	Why are companies opening big flagship stores in a metaverse?
B	<ul style="list-style-type: none"> • Brands are bragging with their stores • Fear of missing out on an opportunity • Low traffic in Decentraland stores • Public attention to their store
SL	Do you think there's also a positive spillover on the brand if you open up an online flagship store?
B	<ul style="list-style-type: none"> • Yes!
SL	What is the reason for brands selling in the metaverse but without running a store there?
B	<ul style="list-style-type: none"> • Visibility • Marketing without the costs of a store

Table 8: Summary of Interview B

8.5 Appendix E: Interview C

Age: 35

Occupation: Producer of metaverse experience

Country of origin: Austria

SL	What do you think is the motive for fashion companies to enter the metaverse?
C	<ul style="list-style-type: none"> • People start understanding that the metaverse might be a new chapter with huge potential • Extremely early days of Metaverse • Conservative companies are probably more critical
SL	What is the competitive advantage for companies who entered the metaverse compared to companies who did not enter the metaverse?
C	<ul style="list-style-type: none"> • The question is not if companies enter but when, • Tech companies understand this is the next domain • The advantage of going early is to be connected to a group of leaders that form the space • Get connected to the people that form the space • Publicity, it is often a PR stunt • Competitive advantages that you learn early • You meet the specific audience (Generation Z) on the platform where they are natively • Build your own space to have an immersive brand experience
SL	Please indicate your agreement on a 5-point Likert scale: Fashion companies enter the Metaverse due to short-term profitability expectations
C	<ul style="list-style-type: none"> • Disagree
SL	The second one: Fashion companies enter the metaverse as they see and expect competitors entering.
C	<ul style="list-style-type: none"> • Agree
SL	Do you think it's an advantage to enter the metaverse early for fashion companies? What is the advantage?

C	<ul style="list-style-type: none"> • Yes • learning about how Metaverse works • Mainstream adoption is coming • First-Mover advantage is a question of execution • Every company must find its contribution to this space
SL	Do you think there is an advantage in learning? What is the advantage?
C	<ul style="list-style-type: none"> • Yes • You have to understand what the conversation in that scene is.
SL	Do you think it will be advantageous to be there early and secure scarce resources as an early mover?
C	<ul style="list-style-type: none"> • Crypto is always a “get-in-early” thing • Land is a concept from our planet, but the internet is open, wide, and free. • If you own land, you care about it, and you are more likely to activate it. • If you want to buy lands on Decentraland, it's better to be earlier than late
SL	Why do fashion companies choose specific metaverses? Is it possible that next year there will be another dominant metaverse?
C	<ul style="list-style-type: none"> • The audience that can be targeted is an essential factor • Needs and services that be offered • Main activities that people do on these platforms • It is a high-risk choice
SL	Do you think there's also an advantage for late movers or second movers in that domain?
C	<ul style="list-style-type: none"> • Later entry will be less risky, and technology will be stable • Bigger audiences can be reached • Now, everything is still very fuzzy. • Interportability between platforms is a problem • People stay on a dominant platform at the moment, which will change
SL	Why are companies opening big flagship stores in a metaverse?
C	<ul style="list-style-type: none"> • It's en vogue at the moment • Metaverse fashion week brought a lot of traffic and gave a possibility to enter • The question is, in what way do we need to replicate the real world • Every fashion company knows how to build a store • Places need the presence of staff and will just survive through consulting and people
SL	Do you think there's also a positive spillover on the brand if you open up an online flagship store?
C	<ul style="list-style-type: none"> • Fashion brands are struggling with the visual fidelity of what you can build • Premium experiences need an expensive set-up and can be afforded only by a small group
SL	What is the reason for brands selling in the metaverse but without running a store there?
C	<ul style="list-style-type: none"> • Some projects were financially successful • Companies want to sell digital and physical assets and want people to recognize the brand • The Travis Scott concert shows what is possible in the Metaverse

Table 9: Summary of Interview C

8.6 Appendix F: Interview D

Age: 40

Occupation: Director of innovation

Country of origin: Columbia

SL	What do you think is the motive for fashion companies to enter the metaverse?
D	<ul style="list-style-type: none"> • The motivation is to learn about the new technology, see who is engaging, and figure out what are the best actions inside • In the future, there will be metaverse teams to create collections for the digital space
SL	What is the competitive advantage for companies who entered the metaverse compared to companies who did not enter the metaverse?
D	<ul style="list-style-type: none"> • Companies that enter are going to be able to interact with the younger generation • It opens brands to another level of communication
SL	Please indicate your agreement on a 5-point Likert scale: Fashion companies enter the Metaverse due to short-term profitability expectations
D	<ul style="list-style-type: none"> • Disagree
SL	The second one: Fashion companies enter the metaverse as they see and expect competitors entering.
D	<ul style="list-style-type: none"> • Agree - It's a chain reaction. Once some companies entered the metaverse, everybody started getting their feet wet. • It should not be the main reason.
SL	Do you think it's an advantage to enter the metaverse early for fashion companies? What is the benefit?
D	<ul style="list-style-type: none"> • Yes, because you have learnings for the future. • It's very early, so mistakes are not costly.
SL	Do you think there is an advantage in learning?
D	<ul style="list-style-type: none"> • Yes, there is a steep learning curve.
SL	Do you think it will be an advantage to be there early and secure scarce resources as early mover?
D	<ul style="list-style-type: none"> • I don't think that it's about resources • Scarcity as output depends on the strategy of the producer. Sometimes it is the goal to have scarcity; sometimes, you want to have market penetration, and both ways are possible. • Talent can be scarce but will become more when the Metaverse develops.
SL	Why do fashion companies choose specific metaverses? Is it possible that next year there will be another dominant metaverse?
D	<ul style="list-style-type: none"> • There is a risk that some of the earlier platforms will not be the ones in the future. • Currently, Metaverse is a trial and test • If they learn, they can leverage that advantage on every other platform.
SL	Do you think there's also an advantage for late movers or second movers in that domain?
D	<ul style="list-style-type: none"> • It is not an advantage; it is a decision to be more risk-averse. • In one year from now, it still won't be late.

	<ul style="list-style-type: none"> • Most fashion companies are already discussing Metaverse entry
SL	Why are companies opening big flagship stores in a metaverse?
D	<ul style="list-style-type: none"> • Flagship stores have the same function as in real-life -- marketing purposes. • It is to be able to generate awareness about the • In Metaverse, you can be more creative because you have fewer restrictions
SL	Do you think there's also a positive spillover on the brand if you open up an online flagship store?
D	<ul style="list-style-type: none"> • Yes, there will also grow consulting around that • There are many disadvantages and risks associated with owning the land in the Metaverse.
SL	What is the reason for brands selling in the metaverse but without running a store there?
D	<ul style="list-style-type: none"> • If you don't want to have the risk of building your store and still want to have a presence, this is a good approach. • It needs less commitment. • They can still learn from that presence and gather data.

Table 10: Summary of Interview D

8.7 Appendix G: Interview E

Age: 38

Occupation: Entrepreneur

Country of origin: Spain

SL	What do you think is the motive for fashion companies to enter the metaverse?
E	<ul style="list-style-type: none"> • Logical step for fashion companies to enter web 3.0 after successful 2.0 operations. • Younger demographic with high interest in fashion is native to the Metaverse. • Digitization of fashion is feasible.
SL	What is the competitive advantage for companies who entered the metaverse compared to companies who did not enter the metaverse?
E	<ul style="list-style-type: none"> • Currently, there are a lot of risks involved for brand reputation. • Fashion companies can recycle ideas into digital NFTs. • Cheap production is the main advantage.
SL	Please indicate your agreement on a 5-point Likert scale: Fashion companies enter the metaverse due to short-term profitability expectations.
E	<ul style="list-style-type: none"> • Disagree because they will target the long-term goal
SL	The second one: Fashion companies enter the metaverse as they see and expect competitors entering.
E	<ul style="list-style-type: none"> • Agree • Fear of missing out is a significant driver in the current hype. • Big brands are recommended to stay out of the Metaverse as risks for the brand are associated with the entry.
SL	Do you think it's an advantage to enter the metaverse early for fashion companies? What is the advantage?

E	<ul style="list-style-type: none"> • The advantage depends on the strategy. • Companies that are managing to co-work with people who are blockchain natives have a good chance. • The most crucial advantage is to extract the knowledge and the information. • Good communication skills are required to overcome failures without damage to reputation.
SL	Do you think there is an advantage in learning? What is the advantage?
E	<ul style="list-style-type: none"> • Yes! • You have the potential and the capability to make mistakes.
SL	Do you think it will be an advantage to be there early and secure scarce resources as early mover?
E	<ul style="list-style-type: none"> • Scarcity is fictional – every creator can create without consequence • There is no limit much land is available. • People who can get a lot of traction and frequency on their version of their new fashion avenue; hence the best real estate is changing.
SL	Why do fashion companies choose specific metaverses? Is it possible that next year there will be another dominant metaverse?
E	<ul style="list-style-type: none"> • There will be a fast change of big players in the metaverse because it's easier to build and destroy. • The Sandbox has the best project as you can create everything, and it's based on Minecraft.
SL	Do you think there's also an advantage for late movers or second movers in that domain?
E	<ul style="list-style-type: none"> • For companies with high-involvement brands, they should wait with entry because they will not benefit but can build traction later as they have the fan base and the money.
SL	Why are companies opening big flagship stores in a metaverse?
E	<ul style="list-style-type: none"> • It's a copy from the artists' galleries that are popular. • The idea is that people walk through the shop based on VR technology, but too few people have the equipment. • There is missing traffic in the metaverse.
SL	Do you think there's also a positive spill-over on the brand if you open up an online flagship store?
E	<ul style="list-style-type: none"> • Yes, some brands show that it works. • If the technical side is not done well, it will backfire.
SL	What is the reason for brands selling in the metaverse but without running a store there?
E	<ul style="list-style-type: none"> • They don't put a large stake in the metaverse, minimizing the risk and still putting the finger on it. • They still get the experience. • Some companies have contractors to launch the web3 presence

Table 11: Summary of Interview E

8.8 Appendix H: Interview F

Age: 46

Occupation: Professor of luxury management & board member

Country of origin: France

SL	What do you think is the motive for fashion companies to enter the metaverse?
F	<ul style="list-style-type: none"> • Hermés lost control of its brand in the Metaverse, as others created digital copies of their products, and they tried to sue for the infringement of their intellectual property. • Some fashion companies see the Metaverse as an opportunity; for others, it is a threat. • Luxury-Maisons have opposing opinions on the Metaverse, which is unusual. • Luxury fashion also needs touch and feel, which is impossible in the digital world. Still, many experts consider it the future. • Luxury for avatars might emerge as a market.
SL	What is the competitive advantage for companies who entered the metaverse compared to companies who did not enter the metaverse?
F	<ul style="list-style-type: none"> • All the companies will have to get into the Metaverse to control their brand and intellectual property. • In luxury, the Metaverse will be a combination of digital and physical. • Brands should benefit from their reputation and intellectual property; hence, they must be present in the Metaverse. • Luxury fulfills two different motivations -- substance and status. • Customers in countries, which had a quick evolution of the demographic from a low social class to high social class, the primary motivation to use luxury is the status that can be digitized. • In other countries luxury should fulfill substance; in that case, the physical object will remain very important.
SL	Please indicate your agreement on a 5-point Likert scale: Fashion companies enter the metaverse due to short-term profitability expectations.
F	<ul style="list-style-type: none"> • Disagree
SL	The second one: Fashion companies enter the metaverse as they see and expect competitors entering.
F	<ul style="list-style-type: none"> • Neither nor. • Some companies believe that the future of luxury is in the Metaverse world, and others do not. • When they are driven by status, they will enter; they will resist if they are driven by substance. • Competition does not exist in the luxury business model as more luxury at a particular place increases the value for all.
SL	Do you think it's an advantage to enter the metaverse early for fashion companies? What is the advantage?
F	<ul style="list-style-type: none"> • Yes and no. • The ones who are selling status have an advantage and should enter. • Others, who are selling substance, have to invent a business model to get in.
SL	Do you think there is an advantage in learning? What is the advantage?
F	<ul style="list-style-type: none"> • No, they have to invent the business model first. • Companies who sell substance should not get in as other fashion brands do.
SL	Why are companies opening big flagship stores in a metaverse?
F	<ul style="list-style-type: none"> • The main advantage is controlling the distribution process.

	<ul style="list-style-type: none"> Companies that have already entered do not have rarity issues as they are considered luxury but still not rare.
SL	Do you think there's also a positive spill-over on the brand if you open up an online flagship store?
F	<ul style="list-style-type: none"> Yes and no. Brands that are successful in the Metaverse were successful in the real world. Hence, it is questionable whether brands can tell their brand story also digital-only.
SL	What is the reason for brands selling in the metaverse but without running a store there?
F	<ul style="list-style-type: none"> Having your store is better because you control your brand. Partnerships alone are not enough to keep your brand reputation up, to not lose your status as a luxury brand. The two strategies can live together.

Table 12: Summary of Interview F

8.9 Appendix I: Interview G

Age: 32

Occupation: Change management analyst

Country of origin: USA

SL	What do you think is the motive for fashion companies to enter the metaverse?
G	<ul style="list-style-type: none"> They want to establish themselves as forward-looking leaders and connect with their audiences Currently, they are loss leaders, with the hopes that it's going to pay off.
SL	What is the competitive advantage for companies who entered the metaverse compared to companies who did not enter the metaverse?
G	<ul style="list-style-type: none"> The most significant advantage is that they are the first creators, which is going to define the platforms Companies entering later will have to play by these early companies' rules.
SL	Please indicate your agreement on a 5-point Likert scale: Fashion companies enter the metaverse due to short-term profitability expectations.
G	<ul style="list-style-type: none"> Strongly disagree.
SL	The second one: Fashion companies enter the metaverse as they see and expect competitors entering.
G	<ul style="list-style-type: none"> Agree.
SL	Do you think it's an advantage to enter the metaverse early for fashion companies? What is the advantage?
G	<ul style="list-style-type: none"> Yes Companies that enter early will be able to build out the platforms themselves; companies that enter later will have to play by the rules established by the early players.
SL	Do you think there is an advantage in learning? What is the advantage?
G	<ul style="list-style-type: none"> Yes! They learn what works for the audiences. Fashion companies use it as a marketing channel to connect with their audiences.

SL	Do you think it will be an advantage to be there early and secure scarce resources as early mover?
G	<ul style="list-style-type: none"> • When we talk about blockchain technology and virtual lands or NFTs, the first movers went big because people who enter later end up paying a lot more for resale. • Players coming in later to buy a space slot are paying higher prices.
SL	Why do fashion companies choose specific metaverses? Is it possible that next year there will be another dominant metaverse?
G	<ul style="list-style-type: none"> • There is a risk inherent in choosing the wrong platform today. • The lessons that you learn can be applied on any metaverse platform
SL	Do you think there's also an advantage for late movers or second movers in that domain?
G	<ul style="list-style-type: none"> • For 2nd movers, everything will be more straightforward and more stable. • Later, you will know the platform to enter.
SL	Why are companies opening big flagship stores in a metaverse?
G	<ul style="list-style-type: none"> • Brands are trying to create an experience for your super fans. • It should ultimately add to the brand story, so whenever someone purchases a good from them, the customer has a lot more context
SL	Do you think there's also a positive spillover on the brand if you open up an online flagship store?
G	<ul style="list-style-type: none"> • The number of people visiting those experiences is too low to impact the brand significantly. • When more people join the Metaverse, that effect can occur.
SL	What is the reason for brands selling in the metaverse but without running a store there?
G	<ul style="list-style-type: none"> • It is similar to companies selling in department stores, where they can leverage someone else's marketing and store space to move your product without investing in marketing and real estate. • They're giving them a metaverse presence without having to invest a lot into it.

Table 13: Summary of Interview G

8.10 Appendix J: Interview H

Age: 40

Occupation: Digital communication manager

Country of origin: Italy

SL	What do you think is the motive for fashion companies to enter the metaverse?
H	<ul style="list-style-type: none"> • It's the first step into the web3. • For many, it was a marketing activity in the first stage. • The ultimate goal is to create a community. • At the end of this journey, the target is finding a revenue stream.
SL	What is the competitive advantage for companies who entered the metaverse compared to companies who did not enter the metaverse?
H	<ul style="list-style-type: none"> • Main advantage is that you start learning, both externally and internally. • They need to understand the skills that are required. • It creates a community, and you can shape it as a first-mover.

	<ul style="list-style-type: none"> Metaverse and web3 is not a mature technology.
SL	Please indicate your agreement on a 5-point Likert scale: Fashion companies enter the metaverse due to short-term profitability expectations.
H	<ul style="list-style-type: none"> Disagree.
SL	The second one: Fashion companies enter the metaverse as they see and expect competitors entering.
H	<ul style="list-style-type: none"> Agree.
SL	Do you think it's an advantage to enter the metaverse early for fashion companies? What is the advantage?
H	<ul style="list-style-type: none"> The advantages are being among the first to build a community and learning. It is about learning ahead of time and organizations organization. Companies that enter early are gaining. First-movers can make a wrong choice and then have the time to correct the wrong choices.
SL	Do you think there is an advantage in learning?
H	<ul style="list-style-type: none"> Yes!
SL	Do you think it will be an advantage to be there early and secure scarce resources as early mover?
H	<ul style="list-style-type: none"> Now, companies still need to understand the metaverse of the future. Cheaper land at the moment probably won't turn into an advantage. Fear of missing out and hype drive prices. Technology and learnings will remain even if the bubble bursts.
SL	Why do fashion companies choose specific metaverses? Is it possible that next year there will be another dominant metaverse?
H	<ul style="list-style-type: none"> At the moment, there is only rough data about the different metaverses. Many platforms will die.
SL	Do you think there's also an advantage for late movers or second movers in that domain?
H	<ul style="list-style-type: none"> The second mover won't take the wrong path and learns by seeing what others are.
SL	Why are companies opening big flagship stores in a metaverse?
H	<ul style="list-style-type: none"> The stores are a marketing activity for the moment. It is not clear whether people will enter digital stores in the future to buy digital fashion. They took a real-life activity and put it in the virtual world. Stores won't be required unless you have experience there.
SL	Do you think there's also a positive spillover on the brand if you open up an online flagship store?
H	<ul style="list-style-type: none"> Yes, but the customer journey is different. People won't go to the store to buy products, but they might feel connected to the brand, leading to later purchases.
SL	What is the reason for brands selling in the metaverse but without running a store there?
H	<ul style="list-style-type: none"> They rely on an engaged community that already exists. Metaverse and gaming have to be differentiated.

Table 14: Summary of Interview H

8.11 Appendix K: Interview I

Age: 48

Occupation: Leading web3 unit for a German company

Country of origin: Germany

SL	What do you think is the motive for fashion companies to enter the metaverse?
I	<ul style="list-style-type: none"> • Not many are entering the Metaverse in recent times. • What is happening can be considered as marketing experiments. • Fashion brands realize that virtual identity will be necessary, and people spend more time digital. • Fashion will play an essential role in the digital space. • Tik-Tok and Instagram can also be considered as a kind of Metaverse.
SL	What is the competitive advantage for companies who entered the metaverse compared to companies who did not enter the metaverse?
I	<ul style="list-style-type: none"> • There is no competitive advantage at the moment. • It is good to be among the first to see what is happening there and experience how it works. • Learning and observing best practices is fundamental at this stage. • The media attention is the main advantage now. • The best competitive advantage you can gain right now is knowledge.
SL	Please indicate your agreement on a 5-point Likert scale: Fashion companies enter the metaverse due to short-term profitability expectations.
I	<ul style="list-style-type: none"> • Strongly disagree.
SL	The second one: Fashion companies enter the metaverse as they see and expect competitors entering.
I	<ul style="list-style-type: none"> • Agree.
SL	Do you think it's an advantage to enter the metaverse early for fashion companies? What is the advantage?
G	<ul style="list-style-type: none"> • Time will tell. • The advantage you gain is knowledge about the behavior of users and technology. • Decentraland has insufficient graphics for the fashion industry. • In the long-term, people will buy virtual fashion.
SL	Do you think there is an advantage in learning? What is the advantage?
I	<ul style="list-style-type: none"> • Yes, I strongly agree. • Learning is the most significant benefit. • You can learn what works and how you engage with customers on those platforms.
SL	Do you think it will be an advantage to be there early and secure scarce resources as early mover?
I	<ul style="list-style-type: none"> • The biggest issue is user adoption because you do not need any premium location without it. • In the end, there is no limitation of land on digital platforms. • If new platforms become dominant, land on the old ones is valueless. • Scarcity is always vital for fashion, and scarcity must be feasible through the Metaverse.

SL	Why do fashion companies choose specific metaverses?
I	<ul style="list-style-type: none"> • There are two viable choices -- the Sandbox and Decentraland. • Both are not visually appealing to a luxury fashion brand. • The user base and the stage of development are essential criteria. • Metaverse platforms aim for cooperation with big brands to create traction.
SL	Do you think there's also an advantage for late movers or second movers in that domain?
I	<ul style="list-style-type: none"> • It is not always good to be the first one because then best practices are not available, and you are investing a lot of money, and you might bet on the wrong platform. • If you're too late, the hurdle might be too high to enter, and the cost might have increased. • The best approach is to try cautiously and see which platform gains the most traction.
SL	Why are companies opening big flagship stores in a metaverse?
I	<ul style="list-style-type: none"> • Fashion companies know how stores work, and replicating in the virtual world is easy. • In five years, that will look different, and it won't be a copy of a real store. • You don't have any limitations by physics, costs, and manufacturing • The medium needs something more exciting and engaging than ordinary stores.
SL	Do you think there's also a positive spillover on the brand if you open up an online flagship store?
I	<ul style="list-style-type: none"> • Not yet. • The press writes about it, but that is the only effect of the current stores. • The user base is too small.
SL	What is the reason for brands selling in the metaverse but without running a store there?
I	<ul style="list-style-type: none"> • They are testing out if there's a new business model behind it. • It makes sense that companies leverage their brands to virtual goods. • Virtual goods are attractive to sell as the margins are high.

Table 15: Summary of Interview I

8.12 Appendix L: Interview J

Age: 46

Occupation: Advisor, Consultant, and Business Angel in Web3

Country of origin: USA

SL	What do you think is the motive for fashion companies to enter the metaverse?
J	<ul style="list-style-type: none"> • Fashion companies can engage with younger customers. • It is a technological opportunity to engage more profoundly with potential customers • Companies can create an ongoing dialogue with customers. • NFTs can work as a certification of authenticity, especially in the luxury space. • Metaverse creates a whole new product market.
SL	What is the competitive advantage for companies who entered the metaverse compared to companies who did not enter the metaverse?

J	<ul style="list-style-type: none"> Companies entering the Metaverse are perceived as innovative. They can develop a conversation s with a younger consumer. Metaverse is still in its beginning stages. Bad execution can lead to brand damage.
SL	Please indicate your agreement on a 5-point Likert scale: Fashion companies enter the metaverse due to short-term profitability expectations.
J	<ul style="list-style-type: none"> Disagree.
SL	The second one: Fashion companies enter the metaverse as they see and expect competitors entering.
J	<ul style="list-style-type: none"> Agree.
SL	Do you think it's an advantage to enter the metaverse early for fashion companies? What is the advantage?
G	<ul style="list-style-type: none"> Yes, if it is well executed. They start establishing their brand and their name in that space. They get credibility for being pioneers, which counts a lot for that community.
SL	Do you think there is an advantage in learning? What is the advantage?
J	<ul style="list-style-type: none"> Yes, they will have the advantage of experiencing When mass adoption is coming, they will have an advantage.
SL	Do you think it will be an advantage to be there early and secure scarce resources as early mover?
J	<ul style="list-style-type: none"> Yes, but only in the long-term. Right now, there are few platforms, but there might be many that will impact that notion in the future.
SL	Why do fashion companies choose specific metaverses? Is it possible that next year there will be another dominant metaverse?
J	<ul style="list-style-type: none"> Many metaverses are published currently, which makes it a hard choice. Ultimately, it will come down to technology, user experience, marketing, and traction.
SL	Do you think there's also an advantage for late movers or second movers in that domain?
J	<ul style="list-style-type: none"> Yes, but the best approach is to have some discrete experiments and build on that.
SL	Why are companies opening big flagship stores in a metaverse?
J	<ul style="list-style-type: none"> They aim for visibility and exposure. Press coverage is an important driver for that strategy. If it is executed properly, it can translate into actual sales. Right now, it is also part of the testing.
SL	Do you think there's also a positive spillover on the brand if you open up an online flagship store?
J	<ul style="list-style-type: none"> If it's well-executed, yes. There are already some successful examples.
SL	What is the reason for brands selling in the metaverse but without running a store there?
J	<ul style="list-style-type: none"> It is a question of finding the right approach and testing the waters. They try to learn and wait for a response to their current strategy.

Table 16: Summary of Interview J