Digital Shopping Experience in the Metaverse from a User Perspective

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Abstract: The digital world and digital space have become part of our everyday lives in the 21st century. Many aspects of our lives have moved into the digital realm, from our shopping and entertainment to our social and civic life. Such an advance of the metaverse poses a number of challenges for individuals, families and organisations. Changing consumer preferences, the human psyche and the marketing space require unconventional responses from organisations. Many organisations have recognised this and are trying to respond to all these challenges. The aim of our study is to look at projects that target the metaverse in order to increase their sales. We want to present in detail projects that are innovative and forward-looking and can serve as examples for other organisations, from the marketing, sales and technology sides. The study aims to shed light on how these innovations are received by users, with a particular focus on their generational characteristics.

Keywords: Metaverse, Digital shopping space, Project scope

Introduction

The rise of digitalisation has brought change in all areas of our lives. This is a trend that is profoundly affecting society and business (Parviainen et al., 2022). The emergence of new technologies in all areas of business, such as artificial intelligence, big data, blockchain, virtual reality and robots, has created a paradigm shift (Cham et al, 2022). However, this is not only radically transforming the world of business, but also profoundly changing the lives of everyday people. Indeed, digitalisation is a process, as it is associated with transformation (Liu et al, 2011) and has an impact on wider society. Not only is business becoming more efficient, but it is also changing people's daily lives, consumer habits and even culture and communication.

The digital transformation is developing new skills in everyone through the development of information and communication technologies (Martin, 2008). If we approach this from the perspective of individuals, we see significant changes in consumption patterns. Digital tools and solutions have shaped a whole new consumer behaviour. If we add to this the major events of recent years, such as the impact of the COVID-19 pandemic, it becomes even clearer to everyone why digital solutions have gained so much ground, not only in our work, but also in our everyday shopping. In addition, the rise of digital solutions in the shopping and consumer space can also be explained by the convenience of being able to access products and services by simply using digital technology. This avoids queues, journeys and long waits, and allows customers to access their preferred products or services quickly and in the same way as if they were trying to physically obtain them. The retail sector has also adapted very quickly to online shopping. Many online shops and social media have given way to an increasing proportion of our waiting time being spent online. Of course, this does not mean that everyone is turning to online shopping with the same degree and frequency. Nor is it possible to generalise on this topic, as generational factors, among others, determine online shopping habits, but differences can also be found between men and women, even across generational groups (Chiu & Cho, 2021). Digitalisation undoubtedly represents a

new alternative for everyday shopping and meeting consumer needs. As much as it has its advantages, its disadvantages cannot be forgotten, as online shopping can in many cases be associated with risk or uncertainty. In addition to paying in advance, you may not receive the quality you expected or you may even experience a supplier default. That said, shopping in the digital space is booming and technology is supporting and facilitating this process in every way. Digitalisation also offers a new user experience, as younger generations are more aware and regular users of digital tools and solutions, and are now more willing to do their business using their smart devices. It could even be said that an increasing proportion of potential customers can be reached and addressed in the digital space, and today's marketing strategies cannot ignore this.

Literature Review

The development of the internet, telecommunications and information technologies has opened up new ways of doing business. The e-commerce market is growing globally and this growth has been even more intense after the COVID-19 pandemic (Almunawar et al., 2021). The popularisation of digital platforms has started to play a very important coordinating and mediating role in economic and social transactions (Hagberg et al, 2016). Digitalisation has brought with it a transformation of social and spatial relations (Couldry & Hepp, 2017). In the process, exchanges and relations in the economy and society have been and are being reorganised through the integration of digital technologies, resources and infrastructures. And the interaction between technological change and the cultural organisation of society is clearly evident (Fast et al., 2018). Digital shopping is also known as e-commerce. The use of smart devices and digital applications and platforms is a key factor. The physical presence is replaced by convenient online shopping options, while consumers are also excluded from a wide range of choices, as they can access mostly all relevant information online (Tahalele et al., 2021). Sellers would therefore have a very high responsibility to communicate and disclose correct and credible information to customers, otherwise they may mislead individuals in making their purchasing decisions. Digital shopping can also be advantageous in that the customer can compare prices, see the main features of the product and even read reviews about the product (Yunanto & Paizal, 2019). All these can clearly help him/her to decide which product to choose and what is more useful for him/her. Digital shopping platforms often provide various tools and features to enhance the shopping experience, such as personalised recommendations, virtual fitting rooms and secure payment options (Kedah, 2023). Although digital shopping is clearly gaining ground, it will never completely replace physical shopping. The explanation is simple. There are products that are better bought by experiencing the product in person. There are also individuals who prefer to feel the material and quality of a product with their own hands before buying it. There is no doubt that it is more convenient to shop from home, not only to buy but also to have the product delivered to your home and even to return it, but it will not replace physical shopping entirely. The rise of online shopping has been catalysed by the development of logistics and supply chains, the modernisation of infrastructure and technological advances in general. The emergence of online marketplaces and digital shops, which seek to entice individuals to shop with an even wider choice. And the aforementioned COVID-19 pandemic has further stimulated this process (Tahalele et al., 2021), as people who had never before taken advantage of this option are also turning to online spaces. However, after the COVID-19 pandemic subsided, many people realised the benefits of being online and their shopping habits remained. Buying behaviour is in effect a collective term for the set of choices and factors that explain why an individual buys a product or uses a service (Braithwave & Scott, 1990). These preferences are influenced by a number of factors, ranging from personal tastes to family socialisation, schooling or cultural habits (Bhukya & Paul, 2023). These are coupled with the achievements of digitalisation and technological developments, which have the potential to influence the choices of individuals. More marketing, more information, more information is flooding the consumer, whose decisions can be profoundly affected by these factors. It has become easier than ever before for operators to reach and address potential customers, but they need to apply and use the opportunities offered by the digital space in a good and informed way. By identifying and serving the preferences of their target audience, businesses can improve the shopping experience and build lasting relationships with their customers (Yasin, 2021).

The online space offers an even better opportunity for businesses to understand people's preferences. Valuable insights can be gained from ongoing contact and communication (Zellweger et al, 2010), customer feedback, customer ratings or satisfaction. In addition, it should be ensured that, although the seller and the buyer often do not meet face-to-face during the online shopping experience, the buyer's experience is one that will make him return to the seller's website, app or online shop (Wells, 2015). Total customer satisfaction should also be maximised in online shopping and should be made to feel that everything is for the customer. In the 21st century, only marketing strategies that can take these aspects into account will be successful, while organisations that can understand their customers' habits and behaviour, even in the online space, will be truly effective.

Composition of the Sample

In the present study, we aim to examine two metaverse purchasing entities through a project-based evaluation, which can serve as a model for other initiatives. The megaprojects presented in our study are included in the list of the most inspiring projects of 2022 published by the Project Management Institute (PMI, 2022). In the questionnaire survey, respondents were asked to rate the selected projects on some factors of project scope. We wanted to highlight the elements of project scope that related to, among others, future focus, profit orientation, cost savings, innovativeness, uniqueness. Respondents rated the factors on a scale of 1 to 4, with a score of 1 indicating a very weak factor and a score of 4 indicating a very strong factor. The survey was conducted in spring 2023. The composition of the sample by generational affiliation is shown below.
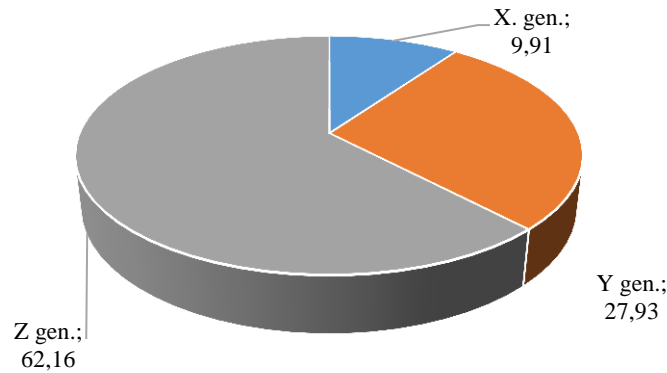
Figure 1. Composition of the sample by respondents' generation
Source: Own research, 2023, N = 399

Results

Store of the Future

The project is a shining example of how retail is being reimagined with immersive digital experiences that will lure even the most jaded shoppers to the mall. It is an oft-repeated truth that the rise of online shopping has meant the slow death of the mall. Majid Al Futtaim (MAF), a mall development company based in the Emirates, aims to reverse this trend, with the initiative taking pride of place in the Mall of the Emirates.

Figure 2. Evaluation of the elements of the Store of the Future project scope
Source: Own research, 2023, N = 399

Table 1. Correlation of Store of the Future project scope elements with age of respondents

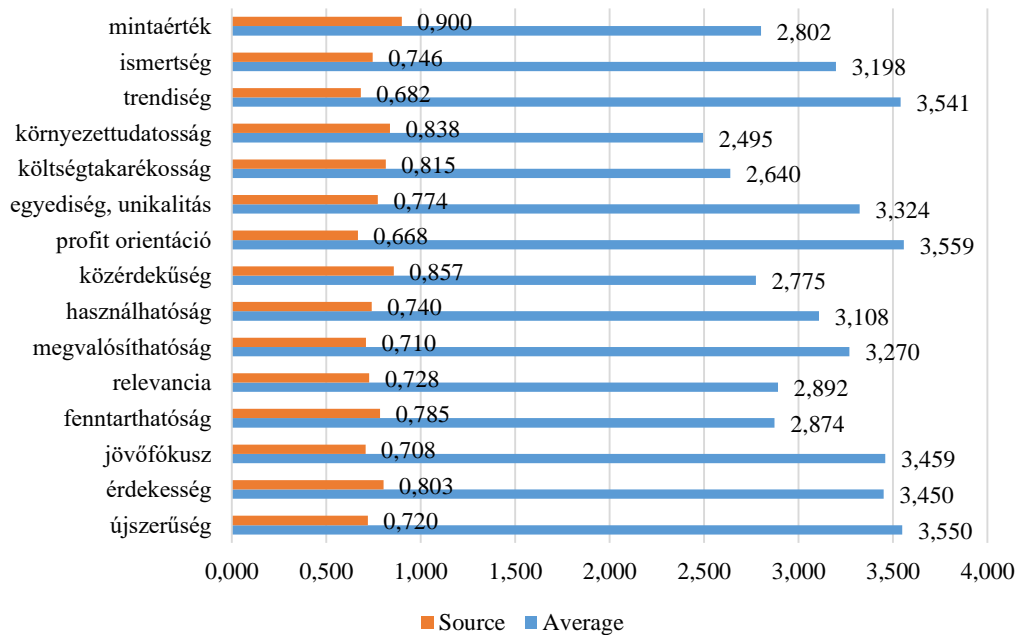|		Sum of Squares	df	Mean square	F	Sig.
Novelty	Between Groups	10,331	2	5,165	10,374	0,000
	Within Groups	219,579	441	0,498		
	Total	229,910	443			
of interest	Between Groups	14,751	2	7,376	11,996	0,000
	Within Groups	271,158	441	0,615		
	Total	285,910	443			
Future Focus	Between Groups	1,553	2	0,776	1,551	0,213
	Within Groups	220,718	441	0,500		
	Total	222,270	443			
sustainability	Between Groups	7,869	2	3,935	6,546	0,002
	Within Groups	265,068	441	0,601		
	Total	272,937	443			
relevance	Between Groups	2,660	2	1,330	2,527	0,081
	Within Groups	232,151	441	0,526		
	Total	234,811	443			
Feasibility	Between Groups	2,042	2	1,021	2,033	0,132
	Within Groups	221,525	441	0,502		
	Total	223,568	443			
usability	Between Groups	1,923	2	0,961	1,760	0,173
	Within Groups	240,888	441	0,546		
	Total	242,811	443			
public interest	Between Groups	0,999	2	0,499	0,679	0,508
	Within Groups	324,479	441	0,736		
	Total	325,477	443			
profit orientation	Between Groups	4,878	2	2,439	5,584	0,004
	Within Groups	192,600	441	0,437		
	Total	197,477	443			
uniqueness, uniqueness	Between Groups	4,755	2	2,378	4,025	0,019
	Within Groups	260,542	441	0,591		
	Total	265,297	443			
cost savings	Between Groups	7,606	2	3,803	5,849	0,003
	Within Groups	286,736	441	0,650		
	Total	294,342	443			
environmental awareness	Between Groups	12,777	2	6,388	9,447	0,000
	Within Groups	298,214	441	0,676		
	Total	310,991	443			
trendiness	Between Groups	10,555	2	5,277	11,891	0,000
	Within Groups	195,716	441	0,444		
	Total	206,270	443			
visibility	Between Groups	11,390	2	5,695	10,680	0,000
	Within Groups	235,168	441	0,533		
	Total	246,559	443			
sample value	Between Groups	9,423	2	4,712	5,951	0,003
	Within Groups	349,135	441	0,792		
	Total	358,559	443			

Source: Own research, 2023, N = 399

The store of the future will offer an intensely personalised, immersive shopping experience, fuelled by a combination of cutting-edge technologies. Young shoppers in Dubai are a tough audience who are largely immune to the usual retail temptations. The final design uses digital screens, video collaboration tools, virtual mirrors and augmented reality to engage and delight shoppers at every step.

Digital display screens greet every shopper upon arrival. As they move through the store, artificial intelligence and computational tools use data to deliver a personalized experience, giving each shopper a unique product discovery journey as they walk through the store. When a shopper pulls something off the shelves, sensors automatically retrieve and display product details on a nearby screen. The so-called magic mirrors allow users to

search for variations of products while being offered the right accessories. It's the store of the future, promising bold new experiences for consumers and a whole new set of lessons for retailers.

After describing the project, we will now look at which characteristics were rated highest and lowest by respondents. For the project under study, it can be seen that respondents clearly gave the highest average value to profit orientation, followed by novelty and trendiness. Factors that are the most pressing issues of the 21st century, such as sustainability, public interest and value for money, were ranked at the bottom of the list. Looking at the factors evaluated from the back, it can be seen that the lowest score was given to the environmental relevance of the project, with cost-effectiveness receiving a slightly better average score, and the third place was given to the public interest of the project. This shows that respondents clearly see a business objective behind the project and value its innovativeness or public interest less. The fact that the project itself tends to serve the needs of more affluent customers also makes the situation worse, which reinforces the negative assessment of the factors at the bottom of the list.

We also wanted to know how the project and certain features of the project were influenced by the generational background of the respondents. Of the factors examined, only six were not influenced by the generation of the respondent. This means that almost two thirds of the project scope characteristics examined are strongly influenced by the age of the respondents. Where we did not see a correlation based on the significance value is the future focus, relevance, feasibility, usability, public interest and uniqueness of the project. All other factors were clearly affected by generational affiliation (see Table 1).

Table 2. Perception of the Store of the Future project scope elements by age group of respondents

		Average	Source
Novelty	X. gen.	4,000	0,000
	Y gen.	3,548	0,667
	Z gen.	3,478	0,774
	Total	3,550	0,720
of interest	X. gen.	4,000	0,000
	Y gen.	3,387	0,833
	Z gen.	3,391	0,822
	Total	3,450	0,803
sustainability	X. gen.	3,273	0,451
	Y gen.	2,806	0,862
	Z gen.	2,841	0,775
	Total	2,874	0,785
profit orientation	X. gen.	3,636	0,650
	Y gen.	3,710	0,522
	Z gen.	3,478	0,716
	Total	3,559	0,668
cost savings	X. gen.	3,000	0,863
	Y gen.	2,516	0,801
	Z gen.	2,638	0,799
	Total	2,640	0,815
environmental awareness	X. gen.	3,000	0,747
	Y gen.	2,484	0,879
	Z gen.	2,420	0,807
	Total	2,495	0,838
trendiness	X. gen.	3,727	0,624
	Y gen.	3,742	0,508
	Z gen.	3,420	0,732
	Total	3,541	0,682
visibility	X. gen.	3,182	0,724
	Y gen.	3,452	0,616
	Z gen.	3,087	0,777
	Total	3,198	0,746
sample value	X. gen.	3,182	0,724
	Y gen.	2,645	1,037
	Z gen.	2,812	0,840
	Total	2,802	0,900

Source: own research, 2023, N = 399

This has also led us to look at which generations tend to value the characteristics of scope more highly. Given the ground-breaking nature of the project in terms of digitisation, we would expect that Generation Z in particular will be the generation that will value the initiative. Conversely, we found that it was Generation X members who rated the majority of factors the highest. They are the ones most likely to have the highest average values for novelty, interest, future focus, sustainability, relevance, usability, uniqueness, cost savings, and environmental awareness. For Generation Z, we only saw high scores for public interest, which the project does not really represent. For Generation Y, profit orientation, trendiness and familiarity dominated with the highest average value (Table 2).

Gucci Town

Gucci Town is creating a new kind of retail community in the metaverse. Not content with simply dominating the world of fashion, Gucci has also set its foot in the metaverse with this project, making the Italian company somewhat unexpectedly known as a pioneer of digital transformation and an incubator of discovery. The 101-year-old fashion house first entered the virtual online world with Gucci Garden. Gucci Town opened its virtual doors in May 2022. The space, designed around a central piazza, features Gucci-inspired games, avatar selfies with models from fashion shoots. In the Gucci Shop, avatars can purchase limited edition and archive-inspired virtual accessories and collectibles. Gucci Town has attracted more than 34.6 million visitors in just a few months, including a sensational debut by Miley Cyrus. In August, the pop star emerged as the brand's first celebrity avatar personality, playing with fans and taking selfies while promoting one of the brand's fragrances. Gucci also allows users to purchase a metaverse bottle of the fragrance for around $5 and wear it as a backpack. It's certainly chump change for the high-end retailer, but it's a clever way to inspire early loyalty in the next generation of consumers, especially as more retailers from Nike to Burberry open stores in metaverse.

In the case of the Gucci Town project, we first looked at the averages in detail. In this case, the highest score was also given to profit orientation, followed by trendiness and feasibility. Sustainability and environmental awareness also ranked lower in this project, but slightly higher than in Store of the Future. The lowest average score was given by respondents to the project sample. This is slightly better than the public interest and environmental awareness, which is a slightly more positive and nuanced picture than for the previous project.
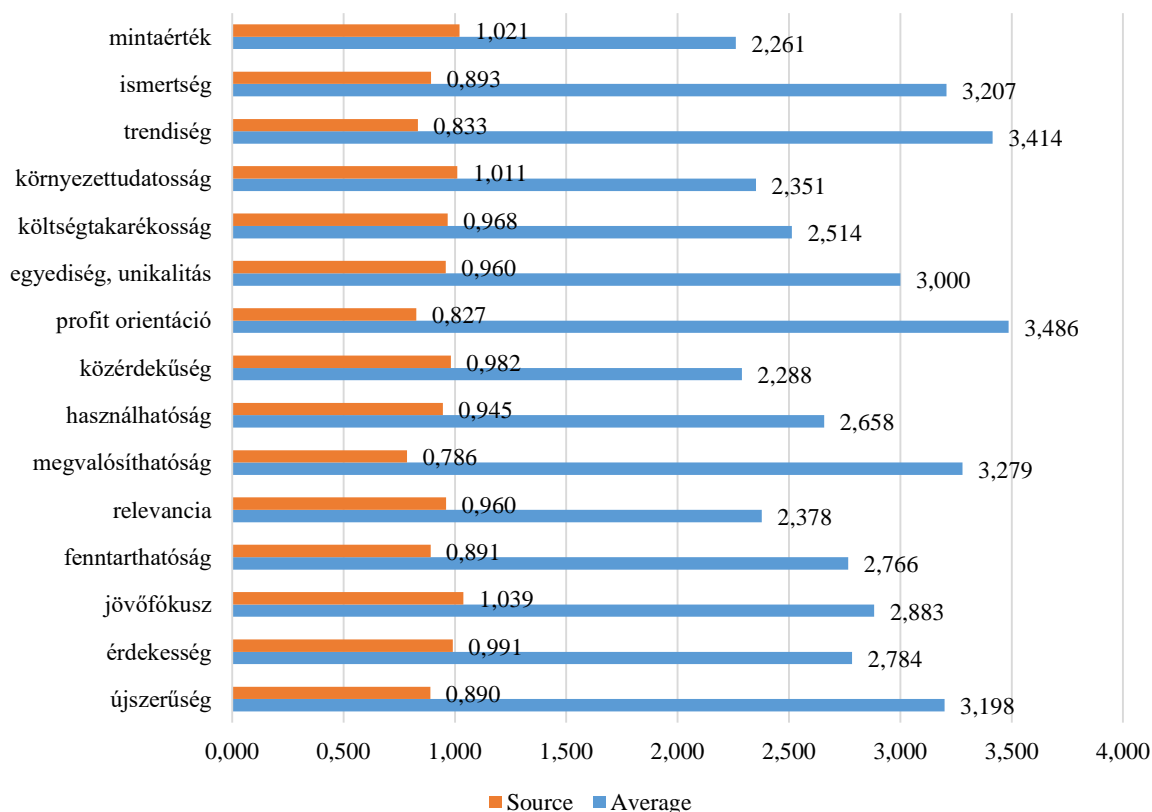

Figure 3. Evaluation of the elements of the Gucci Town project scope
Source: own research, 2023, N = 399

Table 3. Correlation of Gucci Town project scope elements with respondents' age

		Sum of Squares	df	Mean square	F	Sig.
Novelty	Between Groups	20,321	2	10,160	13,568	0,000
	Within Groups	330,238	441	0,749		
	Total	350,559	443			
of interest	Between Groups	18,483	2	9,241	9,779	0,000
	Within Groups	416,761	441	0,945		
	Total	435,243	443			
future focus	Between Groups	12,682	2	6,341	6,011	0,003
	Within Groups	465,228	441	1,055		
	Total	477,910	443			
sustainability	Between Groups	11,686	2	5,843	7,580	0,001
	Within Groups	339,953	441	0,771		
	Total	351,640	443			
relevance	Between Groups	15,351	2	7,675	8,611	0,000
	Within Groups	393,082	441	0,891		
	Total	408,432	443			
Feasibility	Between Groups	2,535	2	1,267	2,064	0,128
	Within Groups	270,835	441	0,614		
	Total	273,369	443			
usability	Between Groups	0,484	2	0,242	0,270	0,764
	Within Groups	395,480	441	0,897		
	Total	395,964	443			
public interest	Between Groups	7,331	2	3,666	3,851	0,022
	Within Groups	419,768	441	0,952		
	Total	427,099	443			
profit orientation	Between Groups	1,526	2	0,763	1,117	0,328
	Within Groups	301,392	441	0,683		
	Total	302,919	443			
uniqueness, uniqueness	Between Groups	4,434	2	2,217	2,423	0,090
	Within Groups	403,566	441	0,915		
	Total	408,000	443			
cost savings	Between Groups	24,318	2	12,159	13,728	0,000
	Within Groups	390,601	441	0,886		
	Total	414,919	443			
environmental awareness	Between Groups	8,176	2	4,088	4,051	0,018
	Within Groups	445,013	441	1,009		
	Total	453,189	443			
trendiness	Between Groups	4,796	2	2,398	3,490	0,031
	Within Groups	302,952	441	0,687		
	Total	307,748	443			
visibility	Between Groups	4,796	2	2,398	3,037	0,049
	Within Groups	348,141	441	0,789		
	Total	352,937	443			
sample value	Between Groups	18,447	2	9,223	9,177	0,000
	Within Groups	443,247	441	1,005		
	Total	461,694	443			

Source: own research, 2023, N = 399

Using analysis of variance, we also examined the extent to which the age of the respondents influences the perception of certain factors of the scope of the project. In this case, there were only four factors where no significant effect was found between the perception of the given characteristic and the age of the respondents. These were feasibility, usability, profit orientation and uniqueness of the project. In other words, the positive perception of certain factors of the project is also reflected in this case, in contrast to the previous Project. As with the previous project, we have looked at the factors where certain generations stand out. Here again, we found that Generation X was the generation most likely to consider the project novel, interesting, future-focused, sustainable, relevant, in the public interest, cost-effective, environmentally conscious and exemplary. There was not a single factor where Generation Z came out on top. What was also noticeable was that Generation Y stood out in terms of trendiness and awareness.

Table 4. Perception of the elements of the Gucci Town project scope by age group of respondents

		Average	Source
Novelty	X. gen.	3,636	0,650
	Y gen.	2,903	0,966
	Z gen.	3,261	0,847
	Total	3,198	0,890
of interest	X. gen.	3,364	0,780
	Y gen.	2,613	0,977
	Z gen.	2,768	0,997
	Total	2,784	0,991
future focus	X. gen.	3,364	0,650
	Y gen.	2,742	1,051
	Z gen.	2,870	1,064
	Total	2,883	1,039
sustainability	X. gen.	3,000	0,747
	Y gen.	2,516	0,760
	Z gen.	2,841	0,944
	Total	2,766	0,891
relevance	X. gen.	2,909	0,802
	Y gen.	2,226	0,978
	Z gen.	2,362	0,949
	Total	2,378	0,960
public interest	X. gen.	2,636	0,990
	Y gen.	2,161	0,923
	Z gen.	2,290	0,996
	Total	2,288	0,982
cost savings	X. gen.	3,000	0,863
	Y gen.	2,194	1,001
	Z gen.	2,580	0,925
	Total	2,514	0,968
environmental awareness	X. gen.	2,727	1,065
	Y gen.	2,226	1,011
	Z gen.	2,348	0,992
	Total	2,351	1,011
trendiness	X. gen.	3,545	0,901
	Y gen.	3,548	0,758
	Z gen.	3,333	0,847
	Total	3,414	0,833
visibility	X. gen.	2,909	0,910
	Y gen.	3,290	0,961
	Z gen.	3,217	0,851
	Total	3,207	0,893
sample value	X. gen.	2,818	1,040
	Y gen.	2,065	1,018
	Z gen.	2,261	0,989
	Total	2,261	1,021

Source: Own research, 2023, N = 399

Conclusions

Overall, respondents were realistic and positive about the two project initiatives. It can be seen that their novelty and uniqueness is less striking to respondents than their profit orientation. Factors that are key issues of the 21st century, such as sustainability or environmental awareness, were very much in the background for both projects. The same could be said for innovativeness and future focus. However, it can be said that both projects have significant novelty value that could revolutionise the retail shopping experience. As economic growth in the 21st century is difficult to achieve without breakthrough innovation, both projects can clearly be held up as examples for the retail sector to follow. From the respondents' point of view, however, it is important to see the factors that are important to them but which do not appear in the evaluation of the projects. This can be achieved either through awareness-raising, a targeted marketing campaign or by better highlighting certain factors, even at the

planning stage. It is important to create projects in the future that can reach as wide a range of consumer groups as possible, paying attention to the call words that 21st century organisations are clearly trying to answer and address.

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