Radboud Universiteit

Design Preferences in Eco-Friendly Innovation

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A Quantitative Research on Early Majority and Early Adopters' Aesthetic Liking of Typical and Atypical Design

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Preface

I proudly present you my master thesis entitled: “Design Preferences in Eco-Friendly Innovation”. Written in the period between December 2020 to August 2021, it is a quantitative research project pivoting on early majority and early adopters' aesthetic liking of electric vehicles, typically and atypically designed.

This study was presented to obtain the master’s degree in Business Administration specialization in Marketing at Radboud University in Nijmegen. Nonetheless, the choice of the subject resulted from a deep and sincere interest in the topics covered during the "Marketing and Innovation" course, held by Prof. Dr. B. Hillebrand, and from the desire to contribute to social change toward a more sustainable economic growth aligned with ecological wellbeing by promoting and facilitating environmentally sustainable innovations through greater knowledge and informed decisions.

I would like to take this opportunity to make a special thanks to my supervisor Dr. M. Grein for his great guidance and support throughout this whole research project. I dedicate this research to my family for making all this possible, to Valentina, and to the people who helped me achieve this tremendous goal with their support and precious teachings.

Ad utilitatem vitae omnia consilia factaque nostra dirigenda sunt.

Sincerely,
Andrea Lunardon

Bassano Del Grappa, August 1, 2021.

Abstract

Product design is an important topic for firms and researchers alike. How a product is designed communicates extrinsic and intrinsic qualities to the consumer. Therefore, design plays a key role, alongside a wide variety of marketing activities, in conducting differentiation strategies and in developing or strengthening brand image.

The hypotheses proposed by this research project are based on two studies, respectively Landwehr et al. (2013) and Celhay & Trinquecoste (2015), and the experiment pivots on the comparison between two prototypical and two atypically designed vehicles, generated through the removal of the front grille, belonging to two different car segments. The data collection was made possible thanks to the use of a survey shared exclusively with members of the Italian population who have purchased at least two or more vehicles in their lifetime. Following data gathering, the result of the performed analysis confirms the hypotheses harmonizing and complementing the literature and the preexisting knowledge of Rogers' early adopters and early majority, extending it to electric vehicles' exterior design. Thus, in the initial phases of the adoption curve of electric vehicles, both early adopters and early majority prefer designs that closely resemble the prototype of the category instead of designs remarkably atypical and innovative. However, consumers who are expert in a category and with a high propensity to innovate appears to accept atypical design more than consumers with a lower degree of innovativeness. Several theoretical and managerial implications are drawn from these results.

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1. Introduction

Product design is an important topic for firms and researchers alike. Not only is product design used as a means of product differentiation (Noble & Kumar, 2008) and for communicating aesthetic, ergonomic, and symbolic meanings (Creusen & Schoormans, 2005), but it is also increasingly recognised as a strategic tool for developing brand image (Karjalainen & Snelders, 2010). Consequently, by establishing several points of differentiation through product design, firms can gain competitive advantages. As demonstrated by Schnurr (2017), for companies that seek to position their brands as reliable and to promote such brand image, the most beneficial strategy would be to make use of typical product designs.

One important determinant of consumers' responses to product design is prototypicality, that is, the degree to which a product's design is representative of a category (Veryzer & Hutchinson, 1998). Designers and marketing managers agree that there are visual codes for product and package designs that typify certain categories of goods (Blijlevens et al., 2009; Fishel, 2003). These "category-based visual codes" refer to the formal and graphic characteristics most frequently seen in each category, defining what is prototypical from what is not. Thus, a typical design corresponds to a high level of prototypicality, and vice versa a low level of prototypicality is associated with an atypical design (Landwehr et al., 2013). In this sense, according to brand image and marketing strategies, firms can offer products with designs that are highly typical for a respective product category, while others can offer products with designs that strongly deviate from the product's prototypical appearance (Schnurr, 2017).

Yet, the relationship between perceived prototypicality and aesthetic liking also varies according to the consumer segment under consideration, consumers who are experts in a category or consumers with a high propensity to innovate (i.e., high level of novelty seeking and opinion leadership), could accept atypical design more (Celhay & Trinquecoste, 2015). That is why, analysing just the simple relation between design prototypicality and aesthetic liking may not lead to any interesting or helpful conclusion for businesses and literature alike, thus making it essential to also consider the distinction between consumers with a high propensity to innovate (i.e., a higher degree of innovativeness) and consumers with a lower degree of innovativeness. In this regard, Rogers' Innovation and Diffusion Theory

provide us with a clear “classifications of members of a social system on the basis of innovativeness” (Rogers, 2003, p. 22), thus linking consumers with a high propensity to innovate to innovators and early adopters, while early majority, late majority, and laggards correspond to consumers with an increasingly lower propensity to innovate.

Lastly, since for business and environmental reasons, an increased understanding of green consumer behaviour is essential, the innovation used to test the influence of design prototypicality and adopter types on aesthetic liking are electric vehicles (EVs). The size of the global EV fleet increased by 1080% from 2015 to 2020, from 720.000 units to 8.5 million in 5 years. The electric share of total vehicle sales is still small, but it is rising fast, and by 2040, over half of all passenger vehicles sold yearly will be electric (Bloomberg NEF, 2021). The infrastructure for charging EVs continues to expand, as the endurance mileage of the batteries keeps increasing due to technological progress and policies continue to support the industry. Electric propulsion is a key technology to reduce air pollution in densely populated areas and a promising option to contribute to energy diversification and greenhouse gas emissions reduction objectives when coupled with a low-carbon electricity sector. This is a major driver behind countries’ policy support in the development and deployment of electric propulsion systems for public and private ways of transportation. To date, 17 countries are putting their efforts towards a 100% electric market share by 2050. In addition, governments are now offering some form of subsidy or tax reduction for the purchase of electric vehicles as well as for the development of the charging infrastructure needed to support a smooth transition from an automotive market dominated by fossil fuels to the electrification of our means of transportation. (International Energy Agency, 2020).

2. Theoretical Background

For this research to provide credible and generalisable results and further infer managerial implications from them, the three main constructs, namely Adopter Types (i.e., early adopters and early majority), Design Prototypicality (i.e., typical and atypical design), and Aesthetic Liking, are going to be discussed and largely supported by both theory and previous literature.

As previously mentioned, Rogers' Innovation and Diffusion Theory will be used to back the distinction between early adopters and early majority. Instead, for their further identification, the construct of Innovativeness will be explained and supported by previous literature, as well as both the constructs of Design Prototypicality and Aesthetic Liking. Lastly, for the further elaboration of the hypotheses posed by this research project, previous literature and results of both Landwehr et al. (2013) and Celhay & Trinquecoste (2015) are going to be discussed.

2.1 The Innovation and Diffusion Theory

Starting from the Innovation and Diffusion Theory, Rogers offered the following description of an innovation: "An innovation is an idea, practice, or project that is perceived as new by an individual or other unit of adoption" (Rogers, 2003, p. 12). Rogers (2003) described the innovation-decision process as "an information-seeking and information-processing activity, where an individual is motivated to reduce uncertainty about the advantages and disadvantages of an innovation" (p. 172).

In the Innovation and Diffusion Theory (IDT), Rogers (2003) identify five adopter categories and defined them as "the classifications of members of a social system on the basis of innovativeness" (p. 22). This classification includes innovators (2,5%), early adopters (13,5%), early majority (34%), late majority (34%), and laggards (16%). These categories seem to show a neat progression. However, in the technology adoption lifecycle, there's often a large gap between early adopters and early majority. This gap is known as the chasm. The reason it's so difficult to cross the chasm is that there's a huge difference between the needs of early adopters, and the needs of the early majority. Early adopters are eager to try something new and unproven, they are important for the success of an

innovation, as they provide companies with insights on how the product will function on a day-to-day basis. They're willing to test new tech in order to set trends, but in most cases their feedback do not represent other categories of adopters increasing the distrust these have towards them. Instead, early and late majorities, are more risk-adverse and they need proof that they will benefit from buying the product. Furthermore, once an innovation has been bought by the early majority is very likely that it will also be successful among remaining groups of adopters who access the innovative product in the later stages of the adoption curve, namely late majority and laggards, both representing the remaining 50% of the market.

For Rogers (2003), the innovation-decision process involves five steps: knowledge, persuasion, decision, implementation, and confirmation. Five steps commonly summed up in knowledge, intention (i.e., persuasion) and behaviour (i.e., decision, implementation, and confirmation). The innovation-decision process starts with the knowledge stage, here, a consumer learns about the existence of innovation and seeks information about the innovation (i.e., novelty seeking). The second stage, namely persuasion, occurs when the consumer has a negative or positive attitude toward the innovation, but this "formation of a favourable or unfavourable attitude toward an innovation does not always lead directly or indirectly to an adoption or rejection" (Rogers, 2003, p. 176). In this stage favourable or unfavourable attitude toward the innovation can be exert by a person identify as opinion leader (Rogers & Cartano, 1962). Lastly, at the decision stage in the innovation-decision process, the consumer chooses to adopt or reject the innovation.

Rogers (2003) further described the innovation-diffusion process as "an uncertainty reduction process" (p. 232), arguing that to make an innovation being adopted faster, adopters should have a set of socio-economic variables, such as high income, age, education, and a high degree of innovativeness. However, as demonstrated by Jansson (2011), age and education are not statistically significant in the adoption of Alternative Fuel Vehicles (AFVs) and although EVs are more expensive than the category average, government policies are greatly reducing the actual price to purchase, making this type of vehicles accessible to consumers.

Thus, to ensure a correct identification of early adopters and early majority, this research will utilise the construct of innovativeness originated by the degree of novelty seeking and opinion leadership.

2.2 Innovativeness to Identify Early Adopters and Early Majority

Innovativeness has been conceptualised in several ways and according to Tellis et al. (2009) there is still currently no consensus in the measurement of the construct. The two most popular and utilised conceptualisations of the nature of consumer innovativeness have been proposed and developed by Midgley & Dowling (1978), and Hirschman (1980). The first classified innovativeness into different levels of "innate innovativeness". It was seen as a generalised personality trait possessed by every member of society and defined as the degree to which an individual makes innovation decisions independently of the communicated experience of others. In other words, individuals who possess a high degree of innate innovativeness do not rely on interpersonal communications in making the purchase decisions. Manning et al. (1995) called this type of innovativeness consumer independent judgment making, which suggests that individuals may differ in terms of their reliance on others for information and assistance in making new product purchase decisions. Midgley & Dowling (1978) postulated that early adopters, who are willing to take the risk of adoption without getting ample information from the social system, tend to have a higher degree of consumer independent judgment making. Hirschman (1980) argued that innovativeness is more likely to be socially influenced than a personality trait. She proposed the idea of inherent novelty seeking, defined as "the desire to seek out the new and different" (Hirschman, 1980, p. 285), and has been found to influence early adoption positively in several settings (Dabholkar & Bagozzi, 2002; Manning et al., 1995). Consumers scoring high in novelty seeking tend to look positively on technology, have stronger intrinsic motivation to use such products, and enjoy the stimulation of trying new ways to approach old problems (Hirschman, 1980; Midgley & Dowling, 1978).

Prior studies on the relationship between consumer innovativeness and the adoption process have suggested that both consumer novelty seeking and consumer independent judgment making are significantly associated with the adoption process of new products. Chau & Hui (1998), and Jansson (2011) were able to demonstrate how early adopters exhibit statistically significantly higher levels of novelty seeking than non-adopters. However, they were both not able to find support for the previously identified relationship between early adopters'

innovativeness and consumer independent judgement making (Manning et al., 1995), finding no statistically significant evidence and therefore rejecting the hypothesis.

Another important construct associated with consumers' innovativeness is opinion leadership, emerging from the assumption that individuals influence each other through interpersonal communication. Based on Rogers & Cartano (1962), opinion leaders are individuals who exert an unidentical amount of influence on others' resolutions. They can influence their peers in several ways: acting as role models who inspire imitation; spreading information via word of mouth; and giving advice and verbal direction for search, purchase, and use (Flynn et al., 1996).

Opinion leadership was found to have a significant influence on the timing of adoption of Windows 95 (Chau & Hui, 1998) and the assumption that innovativeness is correlated with opinion leadership is also supported in the research by Shoham & Ruvio (2008), and Zijlstra et al. (2020). Furthermore, they found how early adopters tended to be those who exhibited a high degree of opinion leadership, while late adopters (i.e., early majority, late majority, and laggards) were unlikely to be opinion leaders within their peer groups.

Thus, to clearly identify early adopters and early majority the survey investigates the degree of innovativeness originated by averaging the respondents' degree of novelty seeking and opinion leadership. Subsequently, since 50% of the adopters is formed by innovators (2,5%), early adopters (13,5%) and early majority (34%) and the remaining 50% is formed by late majority and laggards (Rogers, 2003), we identify, based on Rogers' IDT, early adopters and early majority as the top 50% of the respondents with the highest degree of innovativeness measured by the questionnaire.

2.3 Design Prototypicality and Aesthetic Liking

In the introduction chapter of this research, we hinted at how design affects consumers' perceptions of extrinsic and intrinsic qualities of the product. We also mentioned the concept of prototypicality as an important determinant of consumers' aesthetic liking to product design and defining it as the extent to which a stimulus is representative of an overarching category. Specifically, a prototype can be described as the central representation of a category, as possessing the average values of the features of that category, as a list of frequently occurring attributes, or even as an ideal category member

(Langlois & Roggman 1990; Minda & Smith 2011; Rosch & Mervis 1975). Those frequently occurring attributes are what designers and marketing managers generally define as visual codes for product and package designs that typify certain product categories (Blijlevens et al., 2009; Fishel, 2003). These are called "category-based visual codes" and refer to the formal and graphic characteristics most frequently seen in each category. With regard to this notion, Heilbrunn (2006), Dell'Era & Verganti (2007), and Person et al. (2008) observed that marketers have two choices for package designs when products are being put on the market: they can choose to conform to the prevailing codes for their product category or radically break with these codes. Although conforming has the advantage of reassuring consumers by giving them what they are familiar with (Erdem, 1998; Heilman et al., 2000; Milberg et al., 2010; Miyazaki et al., 2005), breaking with the codes has the advantage of communicating a distinct positioning of the product (Person et al., 2008).

In 1999, Snelders & Hekkert noted a widespread belief among managers that products that looked new and original sold better than products that looked familiar or were well known. The idea behind this belief is that products that look new stimulate consumer interest, whereas others look rather boring and arouse no interest. However, a careful analysis of the consumer behaviour literature reveals that this belief is simplistic. When a product innovation is introduced and communicated to consumers, the product's new technical features are generally presented together with an illustration of its design. Hence, different product designs and the underlying technological differences interact in assessing the likelihood that consumers will adopt an innovation (Creusen & Schoormans, 2005; Rindova & Petkova, 2007), and in what point in time. As such, design prototypicality plays an important role in facilitating the introduction strategy for new products.

In introducing a new product on the market, firms usually pursue one of two strategies: product differentiation and subtyping (Sujan & Bettman, 1989). These two strategies differ in the way consumers integrate a product innovation in their mental schemas. In product differentiation, a new product is positioned as belonging to an existing product category, a process of assimilation occurs, and the innovation is recognised by consumers as a differentiated product that shares important attributes with the other products in the identified category. The strategy makes the use of a typical design in order to facilitate identification to the corresponding category. The second strategy, subtyping, implies that a new product is set apart from the general category. This strategy reduces the likelihood that

consumers will compare the new product with other products within the category. Because the new product does not fit the existing schemas of the consumer, a process of accommodation occurs, and a new mental schema is created. The strategy makes the use of a highly atypical design. Depending on the level of change to existing products, an innovation may result in a small or large deviation from consumers' mental schemas.

Accordingly, new products can be identified as incremental or radical innovations. Incremental innovations are products that are direct improvements and modifications of existing products, these include minor changes in technology. Instead, radical innovations are the result of major technological developments and usually these products require significant changes in consumer thinking and usage patterns (Veryzer, 1998). In some cases, radical innovations may result in the establishment of a new product category, but there are also many radical innovations that are derived from an existing category and consumers could therefore perceive these as belonging to an existing category, depending also on the design they are featured with. (Goldenberg et al., 1999; Moreau et al., 2001). For some radical innovations, the functional attributes could be very different from the products stored in consumers' memory. Thus, consumers may find especially difficult to access the relevant product category schema for radical innovations (Moreau et al., 2001). When this occurs, product design plays an important role in helping consumers accessing the relevant pre-existing schemas and transfer the knowledge necessary for understanding the radical innovation. If the design of a radical innovation closely resembles the prototype of the category, consumers are offered a clear frame of reference for understanding the radical innovation. In contrast, if a radical innovation is embodied in a product with an atypical design, this will emphasise its newness making consumers more insecure about what knowledge from the existing category schema can be relocate to the new product.

2.4 Previous Literature

The hypotheses of this research, which will be elaborated in the following chapter, are based on the previous literature of Landwehr et al. (2013) and Celhay & Trinquecoste (2015) to complement their studies by providing further empirical evidence.

The research by Landwehr et al. (2013), in assuming that consumers usually have multiple occasions to view a product before deciding to adopt it, considers the exposure to which a

product design is subjected having a key role in impacting consumers' aesthetic appeal of a stimulus. On this assumption, the authors perform three studies focused on the automotive industry to examine the relationship among design prototypicality, exposure and consumer response to yield knowledge on whether the effect of design prototypicality on aesthetic liking is moderated by the level of exposure. In doing so, the research proves to be innovative, as it combines different methodological approaches in investigating the aforementioned relationship. To overcome the trade-off between internal and external validity, the combination and integration of a consumer survey, an econometric sales analysis, and an empirical experiment prove not only innovative but above all effective to provide important managerial consequences able to understand and predict the market success of different product designs.

More in-depth, study 1 displays that aesthetic liking of typical car designs is greater at lower exposure levels, whereas, at higher exposure levels, consumers tend to like more atypical designs. To do so, the design prototypicality of the design stimuli used must be assessed objectively. Researchers used the concept of image morphing, consisting of blending several cars' fronts into an average one by defining several feature points common to all, to build both highly typical and atypical car fronts' images out of several individual images. Through an econometric sales analysis, study 2 shows that the interaction between design typicality and exposure also affects sales, indicating that atypical cars begin outselling typical ones after approximately three years and surpass them in terms of absolute sales after roughly five years. After having experimentally manipulated the key constructs used by this research, study 3 provides further support for the notion that design prototypicality and exposure interact to affect aesthetic liking.

Since the time of the research is experimentally manipulated between 3 and 5 years from the launch of the product to better study the effects of design prototypicality on aesthetic liking after a repeated number of exposures, the choice to not consider the differences between users who decide to adopt the product may seem justified. However, as argued in the previous chapters discussing the theoretical background of this research, considering various adopter types, as described in Rogers' Innovation Diffusion Theory, can provide further support to the results of Landwehr et al. (2013) research, harmonizing them with literature and theory on consumer behaviour and innovations diffusion.

It is precisely in this regard that the research of Celhay & Trinquecoste (2015) is employed to implement the results of Landwehr et al. (2013) and in extending the concept of "category-based visual codes" to minor details of the overall design, which have been overlooked by previous marketing literature on product design.

It is indeed true that the notion of "category-based visual codes" has not been deeply explored in the marketing literature and, as reported by Celhay & Trinquecoste (2015), when mentioned, researchers have generally referred to colour codes or the overall product design rather than minor design details that constitute the overall design, such as package graphic components like typography, layout, and illustrations, or as in this research's case, vehicles' front grille.

Following collection of data on wine labels from a sample of 780 respondents, the results of Celhay & Trinquecoste (2015) analysis indicate that the relationships among perceived typicality, aesthetic appreciation, and purchase intent are linear and positive, although several individual variables have a moderating effect, two of them being the consumer's overall tendency to innovate and the consumer segment under consideration (i.e., hypotheses 3 and 4 of Celhay & Trinquecoste, 2015), for them being experts and non-experts. Regarding these variables, which this research translates into two adopter types (i.e., early adopters and early majority), Celhay & Trinquecoste (2015) were able to argue that expert consumers and with the tendency to innovate are more likely to appreciate atypical packages than non-expert consumers and consumers with less tendency to innovate.

Below, the hypotheses are going to be formulated based on the theory and literature discussed in this chapter and in the preceding ones.

3. Hypotheses

Indeed, the study conducted by Landwehr et al. (2013) demonstrates how the acceptance of atypical design is moderated by the number of exposures and that typical design is seen as more attractive when a product exposure is low. On the other hand, Landwehr et al. (2013) affirm that when a product exposure is high, people tend to prefer more atypical designs. To this extent, in the initial phases of the adoption curve when the innovation will be firstly bought by early adopters, both early adopters and early majority could prefer typical designs instead of atypical ones. If that's the case, following Landwehr et al. (2013) results, once the product with the atypical design has gained enough exposure, early majority will prefer it and consequently adopt the atypically designed product rather than the typically designed one. Since in this research atypical design will not be repeatedly exposed, keeping the level of exposure close to zero, we are expecting early adopters and early majority will consider a typical design more aesthetically appealing than an atypical one, leading to the following hypotheses:

> *H1*: Overall, early adopters and early majority will judge the aesthetic liking of typically designed EV higher than an atypical design.

Yet, since Celhay & Trinquecoste (2015) argued that the relationship between perceived prototypicality and aesthetic liking also varies according to the consumer segment under consideration, we expect consumers with a high degree of innovativeness to demonstrate a greater aesthetic liking of both vehicles featured with an atypical design than consumers with a lower propensity to innovate. Thus, leading to the following hypotheses:

> *H2*: In the case of atypically designed electric vehicles, early adopters' aesthetic liking is higher than early majority.

These two hypotheses are based on two different studies, respectively Landwehr et al. (2013) and Celhay & Trinquecoste (2015). The difference with the Landwehr et al. (2013) research resides in the consideration of two categories of adopters. Whereas, regarding Celhay & Trinquecoste (2015) research, the difference resides in the extension of the research topic to the automotive industry. Confirming the first hypothesis would enrich what Landwehr et al. (2013) found, adding the distinction between early adopters and early majority while, the confirmation of the second hypothesis would support and extend the

results of Celhay & Trinquecoste (2015) from mass consume products packaging to exterior design in the automotive industry, especially to electric vehicles.

4. Methodology and Measures

To assess design prototypicality preferences of early adopters and early majority in the case of eco-friendly innovation (i.e., EVs), a survey (*Appendix II*) was made using Qualtrics. The survey consists of questions and statements aimed, in primis, to measure early adopters' and early majority's aesthetic liking of four vehicles with two degrees of design typicality (i.e., typical and atypical). In secundis, the first two blocks of the survey served to distinguish the two categories of adopters. In particular, early adopters and early majority are going to be identified through the degree of novelty seeking and opinion leadership of the respondents that constitute the degree of innovativeness. In order to generate a clear distinction and identification, the survey will utilise questions such as "When other people choose to adopt a hardware/software product, they turn to me for advice", "I'm able to influence other people's opinions about hardware/software products", and "I frequently look for new hardware/software products" to inquire about both degrees of opinion leadership and novelty seeking. The questions utilised are retrieved from the article of Chau & Hui (1997), carefully translated in Italian and the subject changed from hardware and software to cars (e.g., brand and model) and vehicles' components (e.g., traction, engine, or technological features). Respondents are going to answer those questions utilising a Likert scale ranging from 1 to 7, 1 being leaning towards the negative valence of the constructs and 7 towards the positive valence. The measurement items employed by Chau & Hui (1998) were first evaluated for reliability by assessing the Cronbach's alpha. The values for opinion leadership and consumer novelty seeking are 0.88 and 0.90, respectively (Chau & Hui, 1998). The average between the averages' novelty seeking and opinion leadership scores assigned by each respondent, will be their degree of innovativeness.

Based on Rogers' IDT, we know that 50% of the total sample is formed by innovators (2,5%), early adopters (13,5%) and early majority (34%), while the remaining 50% is formed by late majority and laggards. Thus, in order to measure the aesthetic liking of early adopters and early majority, only 50% of the respondents with the highest degree of innovativeness will be employed. At this point, the sample with the highest degree of innovativeness previously selected, corresponding to 50% of all respondents, is formed by 32% (i.e., 16% x 2) of early adopters and 68% (i.e., 34% x 2) of early majority. Thus, early adopters are identified as the group formed by 32% of the observations leaning towards the

positive valence of the Innovativeness construct, and vice versa the early majority as the remaining 68%. Therefore, ordering the values from the lowest to the highest, the 68^{th} percentile (i.e., the value that separates the highest 32% of data from the lowest 68%) is given as P68 = 0.68N, being N the number of collected observations. Once P68 has been established if this is an integer, the 68^{th} percentile is obtained by averaging the $P68^{th}$ and $(P68 + 1)^{th}$ value of the sorted data; instead, if P68 is not an integer, the $P68^{th}$ value is rounded up and the corresponding sorted data value is chosen. Here is how the two groups, namely early adopters and early majority, will be extrapolated from the initial sample.

After having assessed the division between early adopters and early majority, the survey is going to assess design preferences from a set of typical and atypical designed vehicles utilising a Likert scale to determine aesthetic liking. As before the Likert scale range is from 1 to 7, 1 being leaning towards the negative valence of the constructs (i.e., dislike) and 7 towards the positive valence (i.e., like).

4.1 Design Stimuli

To allow for a practical application of our findings, prototypicality is considered a design principle. Subsequentially, images of the front of two vehicles, one city car and one mid-size luxury saloon, are selected based on their market share in each respective category. According to Italian's 2020 vehicle registration data collected by UNRAE and sorted by manufacturer, model, and segment, the two best-selling city car (i.e., Segment A) and mid-size luxury saloon (i.e., Segment D) in 2020 were respectively the Fiat Panda and the Audi A4 (UNRAE, 2021).

One image each of the front of the two selected vehicles are edited by a graphic designer utilising Adobe Photoshop to remove colouring, so that they each reflected the same colouring treatment (i.e., consistent levels of black and white), and the car manufacturer logo, so as to not affect the aesthetic liking of the respondents. Moreover, to provide measurable results and managerial implications from the comparison of vehicles' prototypicality, changes have been made to the selected images in order to generate other two vehicles with an atypical design alongside the two previously selected typically designed cars. The changes to the design of the two vehicles were made based on a study by Radford & Bloch (2011), in which they examined consumer responses to product designs

and provided insight into how changes in a product's design influence product newness perceptions. Radford & Bloch (2011) found that when respondents evaluated the newness of a product considered products to be newer innovations if they were minimalist in style. Boxy or busy-looking products, however, were seen as consistent with products currently offered in the marketplace (Radford & Bloch, 2011). Tesla Motors, for example, included a "fake" grille on their first design of the Tesla Model S to ensure the vehicle was easier for consumers to accept it as a typical luxury sedan, and thereby potentially alleviating scepticism of an EV's functionality. The most recent design of the 2017 Tesla Model S eliminated the "fake" grille altogether and did not incorporate a grille design for subsequent model designs such as the Tesla Model X and Tesla Model 3 (Button, 2019). Therefore, acknowledging the grille as an element of consistency with currently offered fossil-fuel propelled models, it is removed to generate two atypical design vehicles for the comparison (*Figure 1*). To ensure that respondents correctly identified both typical and atypical design of the vehicles selected, and therefore ensure we successfully manipulated the visual design stimuli, a survey (*Appendix I*) was administered to a sample of 30 people so to subsequently perform a T-test and provide empirical support to the stimuli manipulation.

Figure 1: Design Stimuli

4.2 Sample

The sampling method used for this study is the Convenience Sampling Method. CSM is a nonprobability sampling technique, meaning that participants are included based on probabilities and therefore not everyone has the same chances of being involved in this research (Etikan et al., 2016). This is one of the limitations of this research, as it can lead to potential biases. However, one of the main reasons for choosing this method is the speed with which respondents can be reached and is most suited in the case of limited amount of resources and time available, as in this case considering the survey as part of a master's thesis project.

The survey was distributed through student's social media channels (i.e., Whatsapp and Facebook) or emailed to the Italian population currently living in Italy. The choice is based on the market share of Italian electric vehicles circulating in 2020 equal to only 2.3% of the total car fleet in circulation (Statista, 2021), which proves to be the ideal place to retrieve information on early adopters and early majority. The market share being so small implies that not even the early adopters have approached electric cars yet, thus keeping the level of exposure very low and the design of innovation extremely new. Therefore, the sample used for this research is formed by Italian car owners who have purchased at least two or more vehicles in their lifetime.

4.3 Data Analysis

We tested for the predicted influence of design prototypicality and adopters on aesthetic liking with the use of the analysis program IBM SPSS. Data are gathered from a sample of 256 respondents but only half of them (i.e., 128) are selected for the analysis, after having met all the assumption required, results are then obtained by performing a two-way multivariate analysis of variance (MANOVA), followed by the interpretation of the results. The selected statistical method is used to compare mean scores of two or more groups of respondents so to report statistically significant difference between the levels of the independent variables on al linear combination of the dependent variables. The research has a 2 (i.e., early adopters and early majority) x 2 (i.e., typical design and atypical design)

between-subject design and, because the two independent variables have two levels each, a post hoc analysis is not needed.

5. Results

A two-way multivariate analysis of variance (MANOVA) is performed to examine a dependence relation between two independent variables and two dependent variables.
In the following subchapters, the results of the data analysis are discussed, starting with the assumptions. After, manipulation and confound checks are tested to empirically support the design stimuli and the survey questions. Lastly, the results of the MANOVA analysis are discussed based on the previously mentioned hypotheses.

5.1 Assumptions

Before being able to conduct a two-way MANOVA analysis, there are important assumptions to meet and violating these assumptions might have consequences regarding generalizability, reliability, and validity of the results.
The first assumption concerns the measurement scale of both the dependent and the independent variables. It is indeed true that the different dependence techniques can be categorised by two characteristics: the number of dependent variables and the type of measurement scale employed by the variables. First, starting with the number of dependent variables, the aesthetic liking construct consists of two separate dependent variables corresponding to the segments that identify the two vehicles used by this research (i.e., aesthetic liking of segment A and aesthetic liking of segment D). Secondly, we have to look at the measurement scale of the dependent variable and, since the aesthetic liking of both segments is measured through a Likert scale, the variable is metric. In our study there are also two categorical independent variables, with two mutually exclusive levels each. The grouping variable is also called factor or treatment. In this research we have two factors (i.e., Adopter Types and Design Prototypicality) with two mutually exclusive levels each, early adopters and early majority belonging to Adopter Types, typical and atypical belonging to Design Prototypicality.
Pallant (2001) suggested having a minimum of 20 observations per level. Since there are four levels, the sample size of 128 respondents proves to be adequate for conducting the analysis with the chosen statistical method, thus meeting the second assumption. Regarding

the sample, it is not equally distributed across the different types of adopters, with the biggest level being early majority (N= 87) and the smallest being early adopters (N= 41).
Both univariate and multivariate assumptions of normality are tested. To test univariate normality, Skewness and Kurtosis values and the Shapiro-Wilk test have been performed (*Appendix III, Table 1*), resulting in a non-normal distribution. Multivariate normality is then tested with the Mahalanobis distance (*Appendix III, Table 2*), resulting in none of the observations exceeding the critical value of 13.82 (df= 2). According to Pallant (2001), MANOVA analysis is robust against violations of the assumption of normality. Furthermore, since both Skewness and Kurtosis absolute values are smaller than |3| no transformation of the data set is required.
Following is the assumption of multicollinearity, which was tested with the use of Pearson's correlation (*Appendix III, Table 3*). A correlation of .412, below the critical value of .9, displays no sign of multicollinearity between the dependent variables. Nonetheless, the value being above .2 is enough to suppose a relationship between the two.
Lastly, the assumption of homogeneity of variances is tested by carrying out both Box's M test of equality of covariance matrices (*Appendix III, Table 4*) and the Levene's test (*Appendix III, Table 5*). Respectively, the Box's M test reported a non-significant value, suggesting homogeneity of variances which is further proved by the non-significant Levene's test of the variable "Aesthetic Liking of Segment A". Instead, for the dependent variable "Aesthetic Liking of Segment B", a significant Levene's test suggests the use of a smaller alpha in investigating both simple and interaction effects caused by the independent variables (Pallant, 2001).

5.2 Manipulation and Confound Checks

After having checked the required assumptions, to ensure that respondents correctly identified both typical and atypical designs, we showed a significant T-test ($T(30)= -7.4$, $p< .000$; *Appendix IV, Table 1*) to empirically support the correct manipulation of the visual design stimuli employed by this research. A T-test is a type of inferential statistic used to determine if there is a significant difference between the means of two groups, to provide support to the stimuli manipulation we looked for a significant T-test with a p-value below .05 to reject the null hypothesis. For this research, based on the T-test's p-value, we are able

to argue that Italians' car owners correctly identify the two designs, distinguishing the atypical design from the typical one. Confound checks are also performed to probe whether we successfully translated the questions employed to exactly identify and distinguish early adopters from the early majority. Therefore, a factor analysis on 14 items was performed after 256 Italians car owners had completed the questionnaire resulting in an overall Cronbach's alpha of .955 (*Appendix IV, Table 2*), a significant Bartlett's Test of Sphericity, and a KMO of .951, highlighting the adequacy of the sample size (*Appendix IV, Table 3*) and identifying, based on Eigenvalues, 2 factors (i.e., Novelty Seeking and Opinion Leadership) explaining 74% of the variance in the model (*Appendix IV, Table 4*).

5.3 Multivariate Analysis of Variance

After having confirmed the correct manipulation of both design stimuli and survey questions used, a two-way MANOVA is performed (*Appendix V*). Hypothesis H1 predicts that early adopters' and early majority's aesthetic liking of segments' A and D typically designed EVs are greater than atypically designed ones. Proceeding with the analysis, for segment A (i.e., city car) the results show that the main effect of Adopter Types on Aesthetic Liking ($F(1, 255)= 11.06$, $p= .001$) and Design Prototypicality on Aesthetic Liking ($F(1, 255)= 7.80$, $p= .006$) are significant but the interaction effect of Adopter Types and Design Prototypicality has no effect on Aesthetic Liking ($F(1, 255)= .02$, $p= .888$). Specular results are found also for segment D (i.e., mid-size luxury saloon). Significant effect are found for Adopter Types ($F(1, 256)= 15.27$, $p= .000$) and Design Prototypicality ($F(1, 256)= 5.21$, $p= .023$) but not for the interaction effect ($F(1, 256)= .00$, $p= .977$) on Aesthetic Liking (*Figure 2*).

Dependent Variable	**Independent Variable**	**F**	**Sig.**	**Partial Eta sq.**	**Effect**
Aesthetic Liking of Segment A	Adopter Types	F(1, 255)= 11.06	***	.042	Small
	Design Prototypicality	F(1, 255)= 7.80	**	.030	Small

	Adopter Types * Design Prototypicality	F(1, 255)= .02	(ns)		
Aesthetic Liking of Segment D	Adopter Types	F(1, 256)= 15.27	***	.057	Medium
	Design Prototypicality	F(1, 256)= 5.21	*	.020	Small
	Adopter Types * Design Prototypicality	F(1, 256)= .00	(ns)		

*=p<.05 **=p<.01 ***=p<.005 (ns)=non significant

Figure 2: MANOVA Results

Regarding the hypotheses, we found empirical support for H1 backed by the significant results of the simple main effect analysis. In fact, as showed by the graphs below (*Figure 4, 5*) and by comparing resulting means (*Figure 3*), we can argue that typically designed EVs are more aesthetically liked by both early adopters and early majority than atypically designed vehicles.

Dependent Variable	**Adopter Types**	**Design Prototypicality**	**Mean**	**Std. Deviation**
Aesthetic Liking of Segment A	Early Adopters	Typical Design	5.32	1.507
		Atypical Design	4.76	1.743
	Early Majority	Typical Design	4.64	1.555
		Atypical Design	4.02	1.555
Aesthetic Liking of Segment D	Early Adopters	Typical Design	6.22	.988
		Atypical Design	5.80	1.209
	Early Majority	Typical Design	5.51	1.405
		Atypical Design	5.08	1.557

Figure 3: ANOVA Descriptive Statistics

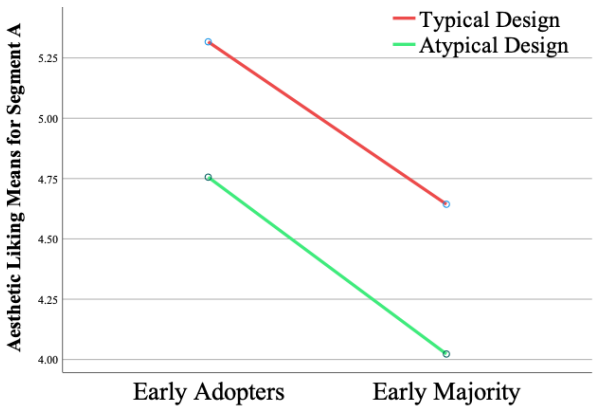

Figure 4: Aesthetic Liking Means of Segment A

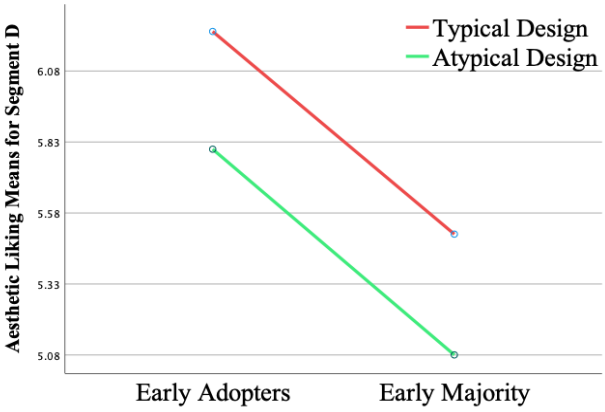

Figure 5: Aesthetic Liking Means of Segment B

Hypothesis H2 predicts that in the case of atypically designed electric vehicles, early adopters' aesthetic liking is greater than the early majority. This hypothesis is also confirmed by checking the significant simple effects. In fact, considering only the atypical design's aesthetic liking, we can report that the early adopters estimated mean for both segment A and D (M= 4.76, SD= 1.743; M= 5.80, SD= 1.209; *Figure 2*) is greater than early majority (M= 4.02, SD= 1.555; M= 5.08, SD= 1.557; *Figure 2*).

6. Discussion

The administration of the survey and the afterward analysis of the results led to confirm what was predicted by hypotheses H1 and H2. As predicted, our results show that for both early adopters and early majority, the typical design of both segments A and D is more liked than atypically designed vehicles. However, considering only the atypical design, early adopters, unlike early majority, exhibited a greater aesthetic appreciation.

This research confirms once more as simplistic the idea supported by Snelders & Hekkert (1999) that products that look new and original will be sold better than products featured with a familiar and highly prototypical look.

Hereafter, a series of important conclusions of both theoretical and managerial nature, raised from the statistical results of the two-way MANOVA analysis, are going to be discussed along with limitations and ideas for future research.

6.1 Theoretical Implications

Confirmations in support of Landwehr et al. (2013) research transpire from the analysis carried out by this paper. For the first hypothesis, it is clear how early adopters and early majority, at low levels of exposure, will consider typical design more aesthetically appealing. To this extent, we can argue that, in the initial phases of the adoption curve of electric vehicles, both early adopters and early majority prefer designs that closely resemble the prototype of the category instead of designs remarkably atypical and innovative.

Despite the chasm, defined by Roger's IDT (2003), between early adopters and early majority, this research highlights a symmetry in the evaluation of design prototypicality by the two types of adopters. Leading to think that the aesthetic appreciation of vehicles' exterior design can't be considered the cause of the chasm.

Regarding the second hypothesis, we found enough support to argue with confidence that consumers' expertise and consumers with a high propensity to innovate, such as early adopters (i.e., high level of novelty seeking and opinion leadership), accept atypically designed vehicles more than consumers with a lower degree of innovativeness. In line with what was argued in the hypotheses chapter, finding support for H2 confirms and extends

the results of Celhay & Trinquecoste (2015) from products packaging to the automotive industry and specifically to electric vehicles' exterior design.
A further addition to the concept of "category-based visual codes" is made by this research, extending the notion to include the front grille of vehicles, never explored before. The respondents, in identifying the design of vehicles without a front grille as an atypical design, mentally labelled it as new and innovative compared to vehicles with a front grille, confirming that a design will appear to be innovative only in comparison with the designs of other brands within the same product category. Thus, proving that the degree of newness or novelty in a design or product is expressed relatively rather than absolutely (Dell'Era & Verganti, 2007).

6.2 Managerial Implications

Our research provides important managerial implications to both new and well-established car manufacturers. The findings of this research suggest featuring new electric vehicles with a typical design to make the innovation more aesthetically likeable to early adopters, to increase adoption in the initial phase of the adoption curve, and thus following a differentiation strategy. New EVs featured with a typical design to facilitate consumers identification, are positioned as belonging to the existing category of motorised vehicles used for private transportation. At this point, a process of assimilation occurs, and the innovation is recognised by consumers as a differentiated vehicle that shares important attributes with combustion engines vehicles in the identified category. This strategy could be particularly helpful to new car manufacturers approaching the market, to get noticed by consumers of combustion engine vehicles and then opt for an atypical restyling of the previously launched or newly launched electric models, as for Tesla with their renowned Model S and Model 3.
However, for car manufacturers already well-established in the market, with several physical showrooms around the world, and with huge financial resources, the best solution could be pursuing a subtyping strategy and feature new EVs with an atypical design, backed by a carefully planned marketing campaign so to reach the right level of exposure quickly. This choice would be indirectly supported by the result of this research which shows how early adopters' aesthetic liking of the atypical designs is not significantly lower than that of

the vehicles designed while maintaining the typical "category-based visual codes". In particular, the mean of segment A typically designed electric vehicle is 5.32 (SD= 1.507) against the 4.76 (SD= 1.743) of the atypically designed one, while the difference is even less significant for segment D, respectively 6.22 (SD= .988) against 5.80 (SD= 1.209). Moreover, after having gained enough exposure, as stated by Landwehr et al. (2013), atypically designed electric vehicles are set to turn even more profitable than typical ones in the long term. Since at first glance the atypical design could lead to rejection, it is important to point out how the marketing strategy used to achieve a desirable level of exposure, must deliver results quickly so as not to be penalized. At the same time, it seems reasonable to assume that consumers could have several exposures of atypically designed cars before coming to a purchase decision and therefore, further helping car manufacturers who decide to pursue a subtyping strategy in reaching a higher level of exposure faster. It is indeed useful to consider how new manufacturers featuring a typical design on their electric vehicles, could quickly turn leader and exploit the advantages of a first-mover position in the electric vehicle market, such as customer loyalty and the possibility to define product standards (Golder & Tellis, 1993).

To serve this purpose, future research aimed at defining the perceived relative advantage and the compatibility of innovation might give greater support to this type of managerial implications. Assuming a low level of relative advantage, a high level of compatibility, and supported by the combined results of this research and that of Landwehr et al. (2013), we suggest well-established automotive firms to implement awareness-based promotion and take advantage of intensive distribution channels to lead consumers to focus on the newest product and to speed up the development of awareness and exposure of the atypically designed new electric vehicle (Guiltinan, 1999).

6.3 Future Research and Limitations

As previously stated, in order to give greater support to the results of this research, we recommend concentrating efforts of future research in investigating how electric vehicles are perceived by consumers. In particular, defining both levels of perceived relative advantage and compatibility of the innovation would greatly support the managerial implications of this research.

Furthermore, interesting results could arise from investigating why early adopters and early majority prefer the typical design over the atypical one in the initial phase of the adoption curve by integrating and taking greater inspiration from the research of Celhay & Trinquecoste (2015). Plausible assumptions can be linked to consumers' perceived risk in relation to those criticalities from which electric vehicles are not exempt. Future research can uncover the relationship between the choice of design (i.e., typical and atypical) and the levels of consumers' perceived risk. We recommend considering multiple types of risk as different types (e.g., economic and social) can have varying influences on the rate of adoption (Labay & Kinnear, 1981; Ostlund, 1974). Regarding the economic and social risks, it might be wise to add qualitative risk, determined by factors such as charging piles coverage, charging speed and cruising range (Yang et al., 2018). Through in-depth analysis of the qualitative risk could arise further support to a subtyping strategy. As it reduces the likelihood that consumers will compare the new product with other products within the category, because the new product does not fit the existing schemas of the consumer, a process of accommodation occurs, and a new mental schema is created. Since today's electric vehicles are inferior to their combustion equivalents in key aspects of their functioning, such as refuelling / charging infrastructure, refuelling / charging speed and cruising range (i.e., qualitative risk's components), it would be unwise to generate comparisons. Thus, future results in this regard could lead to infer even more support in pursuing a subtyping strategy and provide solutions to reassure consumers, for instance through more communication about their vehicles' features and qualities.

Even though this study was carefully set up and executed, some limitations are still present. The first limitation concerns the sample size of this study. Despite it being moderately large, it is not large enough to be representative and generalizable to the entire population. Moreover, more power is expected with bigger sample size.

Another possible bias concerns the sample used which is enclosed to a single country (i.e., Italy). Since Italy is the homeland of such deep-rooted automotive culture, the aesthetic liking of electric vehicles could be penalized just for being battery propelled or for the absence of the prototypical front grille.

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Appendices

Appendix I: T-test Survey

Survey's title: "Identificazione design tipico e atipico"

Start of block: Identification

Q1 Come giudica il design dei seguenti veicoli?

- ○ Design tipico
- ○ Design atipico

Q2 Come giudica il design dei seguenti veicoli?

- ○ Design tipico
- ○ Design atipico

Appendix II: Survey for Measuring Aesthetic Liking

Survey's title: "Piacevolezza estetica del design tipico vs. atipico"

Start of block: Screening Question

Q1 - Quante autovetture hai posseduto, acquistandole oppure noleggiandole per un periodo superiore ad almeno 1 anno?

- ○ 0
- ○ 1
- ○ 2
- ○ Più di 2

Start of block: Opinion Leadership

Q2 Rispondete alle seguenti affermazioni indicando il vostro livello di approvazione da 1 a 7 della scala graduata Likert.

Il valore minimo **1** equivale a "**fortemente in disaccordo**", viceversa il massimo **7** a "**fortemente d'accordo**", mentre il **4** funge da valore neutrale e dunque "**né d'accordo e né in disaccordo**".

	1	2	3	4	5	6	7
Le mie opinioni sulle **autovetture** e sulla loro componentistica (ad esempio marca, modello, equipaggiamento dell'abitacolo interno, trasmissione o motore) sembrano incidere sulle decisioni di **altre persone** (ad esempio familiari, colleghi o amici)							
Quando altre persone scelgono di acquistare un'autovettura, si rivolgono a me per un consiglio							
Altre persone acquistano autovetture in base a ciò che ho suggerito loro							
Spesso convinco altre persone ad acquistare autovetture che reputo interessanti							

Altre persone vengono da me per consigli sulla scelta di autovetture	
Spesso influisco sulle opinioni che altre persone hanno riguardo autovetture	

Start of block: Novelty Seeking

Q3 Rispondete alle seguenti affermazioni indicando il vostro livello di approvazione da 1 a 7 della scala graduata Likert.

Il valore minimo **1** equivale a "**fortemente in disaccordo**", viceversa il massimo **7** a "**fortemente d'accordo**", mentre il **4** funge da valore neutrale e dunque "**né d'accordo e né in disaccordo**".

	1	2	3	4	5	6	7
Cerco spesso informazioni su nuove autovetture							
Mi piace andare in luoghi (ad esempio fiere o concessionari) in cui vengono esposte nuove autovetture							
Mi piacciono le riviste che introducono nuove autovetture							
Cerco spesso nuove autovetture							
Cerco situazioni (ad esempio conversazioni con altre persone) per confrontarmi e parlare di nuove autovetture							
Mi piace sperimentare continuamente nuove autovetture							
Quando vado a fare acquisti, mi ritrovo a prestare maggiore attenzione verso nuove autovetture							

Approfitto della prima occasione disponibile per conoscere e informarmi nuove autovetture	

Start of block: Aesthetic Liking

Q4 I seguenti sono **veicoli elettrici**, su una scala graduata Likert da 1 a 7, quanto ti piace il loro design?

Il valore massimo **7** rappresenta il **gradimento massimo** mentre **1** quello **minimo**.

	1 2 3 4 5 6 7
	
	
	

Appendix III: Assumptions

Table 1: Univariate Normality

Dependent Variable	Shape Descriptors		Shapiro-Wilk Test of Normality	
	Skewness	Kurtosis	Statistic	Sig.
Aesthetic Liking of Segment A	-.400	-.624	.935	.000
Aesthetic Liking of Segment D	-1.012	.651	.864	.000

Table 2: Multivariate Normality

	df	Maximum
Mahalanobis Distance	2	13.132

Mahalanobis Distance Critical Value: 13.82

Table 3: Pearson's Correlation

	Aesthetic Liking of Segment A	Aesthetic Liking of Segment D
Aesthetic Liking of Segment A	1	.412**
Aesthetic Liking of Segment D	.412**	1

** Correlation is significant at the .01 level (2-tailed)

Table 4: Box's M test of equality of covariance matrices

Box's M	14.161
F	1.547

df1	9
df2	195948.200
Sig.	.125

Table 5: Levene's Test

Dependent Variable	Levene Statistic	df1	df2	Sig.
Aesthetic Liking of Segment A	.317	3	252	.813
Aesthetic Liking of Segment D	2.780	3	252	.042

Appendix IV: Manipulation and Confounding Checks

Table 1: Paired Samples T-test

Paired Samples	Mean	Std. Deviation	t	df	Sig.
Q1*Q2	-.645	.486	-7.385	30	.000

Table 2: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha on Standardised Items	N. of Items
.955	.955	14

Table 3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.951
Bartlett's Test of Sphericity	Approx. Chi-Square	3286.206
	df	91
	Sig.	.000

Table 4: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Sq. Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.878	63.414	63.414	8.878	63.414	8.159
2	1.514	10.813	74.226	1.514	10.813	74.226
3	.689	4.919	79.146			

4	.515	3.681	82.827			
5	.361	2.576	85.402			
6	.331	2.363	87.765			
7	.315	2.252	90.017			
8	.279	1.990	92.007			
9	.230	1.645	93.652			
10	.212	1.514	95.166			
11	.206	1.472	96.638			
12	.180	1.288	97.926			
13	.153	1.093	99.020			
14	.137	.980	100.000			

Extraction Method: Principal Component Analysis

Appendix V: Two-Way Multivariate Analysis of Variance

Table 1: Descriptive Statistics

Dependent Variable	Adopter Types	Design Prototypicality	Mean	Std. Deviation	N
Aesthetic Liking of Segment A	Early Adopters	Typical Design	5.32	1.507	41
		Atypical Design	4.76	1.743	41
	Early Majority	Typical Design	4.64	1.555	87
		Atypical Design	4.02	1.555	87
Aesthetic Liking of Segment D	Early Adopters	Typical Design	6.22	.988	41
		Atypical Design	5.80	1.209	41
	Early Majority	Typical Design	5.51	1.405	87
		Atypical Design	5.08	1.557	87

Table 2: Multivariate Tests

Effect	Pillai's Trace	
	Sig.	Partial Eta sq.
Adopter Types	.000	.072
Design Typicality	.009	.037
Adopter Types * Design Prototypicality	.990	.000

Table 3: Test of Between-Subjects Effects

Dependent Variable	Independent Variable	F	Sig.	Partial Eta sq.

Aesthetic Liking of Segment A	Adopter Types	11.06	.001	.042
	Design Prototypicality	7.80	.000	.030
	Adopter Types * Design Prototypicality	.02	.888	.000
Aesthetic Liking of Segment D	Adopter Types	15.27	.006	.057
	Design Prototypicality	5.21	.023	.020
	Adopter Types * Design Prototypicality	.00	.977	.000