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How Brand Awareness, Price and Reviews can reduce Perceived Risk associated to an online purchase

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CONTENTS

1 INTRODUCTION AND PROBLEM STATEMENT:

In the years, the increased globalization of the world economies has created many opportunities for marketers. The retail industry is experiencing unprecedented change with the advance in digital technology which is shaping the way consumers shop. Nowadays a single channel to sell products is no longer enough and this is the reason why traditional retailers are considering to go online while, at the same time, e-tailers are looking at various opportunities to launch physical stores. A clear example of this is represented by the eCommerce leader Amazon that launched its first physical grocery shop, Amazon Go, in January 2017. On the other hand, retailers are increasingly challenged to redesign their business model by developing an eCommerce experience that will win customer wallet share. Since 2000, fully three-quarters of retail sales growth has happened through online channels. The online channel now accounts for about 8 percent of total retail sales (PWC, 2015 Retail trends report).

eCommerce is becoming one of the most profitable and valuable channel. Retail sales across the globe in 2016 hit $22.049 trillion and it is estimated they will hit $27 trillion in 2020 ("Worldwide Retail Ecommerce Sales: The eMarketer Forecast for 2016"). According to PWC's "Total Retail Survey in 2016", 54% of the 23 000 people surveyed buy products online on a weekly or monthly base.

The online channel, is considered profitable by many top firms in the world and it has been adopted in companies' business strategies. A clear example of this statement is the world-leading company Philips. In the last two years, Philips started to move the business towards the digital world, implementing the eCommerce channel as part of the go-to-market strategy. As of now the online channel contributes 25% to the total revenues of the company (GFK research, 2016) and it is expected to grow even more in the coming years.

The online channel represents at the same time an efficient and economic mean to sell products and services online, nonetheless, there are many risks associated to its use that should be taken into consideration when companies decide to expand in this channel. Indeed, consumers' perceived risk of online shopping represents a hot topic to research as it directly effects the users' attitude towards online purchasing behavior (Feng Zhu and Xiaoquan Zhang, 2010). For this reason, it would be relevant to understand how consumers' perceived risk should be managed to allow more buyers committing in online purchasing. As a result of the above discussion, my research question focuses on how to reduce the consumers' perceived risk over the internet in order to increase the value associated to the growing phenomenon of online shopping.

The aim of this paper is to understand how financial and performance risk might affect the consumer when buying over an online platform and how the risk might be reduced through different strategies. Hence, the research questions are:

- o How can perceived risk affect customers' purchase intention in an online environment?
- o How can perceived risk over on online channel be reduced by implementing three main risk reduction strategies?

The main investigation, though, relies in the risk reduction strategies that can affect the consumer's decision process when buying online. Indeed, as most of the companies expand their business adding a new online channel, it would be useful for marketers to understand how specific risk relievers might reduce consumers' concerns when shopping online.

The concept of risk generated a great deal of research in consumer behavior since it was first presented by Bauer to the marketing literature in 1960. Here after a considerable amount of studies was

conducted on perceived risk such the works of the two psychologists Kogan and Wallach (1964). One of the most famous research about risk taking behavior was developed by Cox (1967). Taylor (1974) attempted to construct a complete theory of risk taking in consumer behavior. In this theory the author specified the principal concepts involved in it and the interrelationships between the concepts.

Typically, perceived-risk studies focused on products or brands in relation to different situations and settings. For instance, Hisrich, Dornoff and Kernan (1972) attempted to relate perceived risk to retail store selection while Cox and Rich (1964) studied how the nature and the degree of risk perceived by the customers, in this case women, are important determinants when buying through the telephone. Spence, Engel and Blackwell (1970) conducted another important research where they tried to determine whether consumers perceive greater risk in buying products by mail than in buying from a store or a salesperson. The findings of the studies suggested that risk attitude is not only associated to the products and service acquired but it is also related to how or where the product is acquired.

However, in the existing literature there is less evidence on how risk might affect the e-commerce channel. Shopping in an online environment is different from purchasing in stores. Consumer may encounter additional risks in online shopping than in conventional marketplaces. For this reason, since perceived risk related to an online channel received only preliminary investigation, it would be interesting to extend the academic literature in this direction. The online channel involved in this study will be the focus and the new contribution to the past literature (Glover, Benbasat, 2011). In addition, the thesis contributes to understand consumer behavior over the internet and what type of cues can reduce the risk. As in the past literature the main risk relievers included Brand Awareness, Word of mouth and Price, I focus on these three and try to understand whether those ones can influence the online channel as well.

Indeed, as Bauer (1967) suggested in his work, brand loyalty can be interpreted as a risk reliever and for this reason, it is implemented in this research as well. The purpose of this is to understand if the brand awareness strategy can represent a valuable risk reliever in the online environment as well and not only in the retail store. The second risk reduction strategy that I would suggest to investigate is price. According to Tull, Boring and Gonsior (1964) consumers rely heavily upon price as a predictor of quality when there is a significant degree of uncertainty in the purchase decision. For this reason, it might be interesting to observe whether the price of the product sold through the online channel can serve as an extrinsic cue of quality and as a risk reliever for the consumer. The third risk reliever that I would like to investigate in my research is the online feedback system referring to the average rating and the volume of reviews. Recent studies claimed that online consumers' reviews influence product sales and might serve as an extrinsic cue to reduce risk (Zhu and Zhang,2010).

Consequently, this research addresses the issues of internet marketing from the customers' perspective. The paper seeks to determine the risk perception of the Internet shoppers and the different types of risk reduction mechanisms available when shopping through the internet. Thus, according to the level and the kind of risk perceived by the customers, marketers are able to identify and create the right combination of risk relievers suited for their combination of buyer type and implement them on the online platform to increase the trustfulness of this channel among the consumers.

2 LITERATURE REVIEW

The section is divided in three main parts, which represents three perspectives of Perceived risk. The first perspective focuses on the concept of perceived risk, how it was developed and adapted by different authors and over the years. The research points out there are various types of risk the consumer may experience: financial risk, performance risk, social risk, time loss and physical risk.

The second perspective focuses on the source of risk: the environment responsible for an event that causes harm to the consumers. In this case, the online shopping causes a sort of risk of the consumers. The third section of the literature review analyses the different options and actions for marketers to decrease the perceived risk in consumers.

2.1 PERCEIVED RISK

Perceived risk usually plays a relevant role in the purchase decision-making process, regardless of the nature of the purchase occasions, for instance planned or impulse. Every purchase action contains some degree of risk.

Bauer (1960) was the first one to introduce risk concept and argue that this concept, to a varying extent, probably might be involved in most purchasing situations. According to the author, the higher the risk, the greater the need for information during the decision. The author, in his "Consumer Behavior as Risk Taking", defined the construct of perceived risk. He proposed the concept of risk as a two-dimensional structure, namely, uncertainty and adverse consequences, and defined it as the consumers feeling of uncertainty about the consequences of transactions.

The uncertainty dimension of the construct was widely used in much of the following research (e.g., Amdt, 1968a,b; Schiffman, 1972; Herman and Locander, 1977; Shimp and Bearden, 1979, 1982; Toh

and Heeren, 1982). The authors Shimp and Bearden (1982) addressed how extrinsic cues, such as warranty and price, might have some relevant effects on consumers' risk perceptions. In the study, the Risk perception concept was related to a level of uncertainty that consumer can encounter when purchasing and using innovative products.

Cox took the two-dimensional construct of perceived risk proposed by Bauer into consideration as well. Indeed, the author elaborated on Bauer's original analysis and stated that perceived risk is a function of (1) the amount at stake in a purchase and (2) the consumer's subjective feelings of certainty about the favourableness of purchase consequences. Amount at stake was further defined as a function of:

> "the importance or magnitude of the goals to be attained, the seriousness of the penalties that might be imposed for nonattainment, and the amount of means committed to achieving the goals" (Cox 1967).

Another major study in defining a model of risk was identified by Cunningham (1967). The author measured two dimensions, consequences and certainty, and combined the ratings of these components arbitrarily to produce essentially a three-level ordinal risk scale.

Further researchers considered Cunningham's work. One of the most influential is the one from Bettman (1973), who tried to propose an intermediate-level measure of perceived risk, separating it into two slightly different constructs: inherent and handled risk. The first one is the latent risk a product class holds for a consumer, while handled risk is the amount of conflict the product class is able to arouse when the buyer chooses a brand from a product class in his usual buying situation.

In the same years, Taylor (1974) proposed adverse consequences as "importance of the possible loss". According to the author, loss can be interpreted in psycho/social terms or in functional/economics terms, or in some combination of both forms.

Boch replaced adverse consequence and Richins (1983) with a concept called "instrumental importance". In the paper, the construct was defined as "a temporary perception of product importance based on the consumer's desire to obtain particular extrinsic goals that may derive from the purchase and/or usage of the products".

A considerable number of researches extended the original two-dimensional construct of perceived risk and stated that the concept is related to several types of loss, namely, performance, social, financial, physical, psychological, time, frustration and so on. The clear majority of researchers analysed one or more of these forms of losses. For instance, Jacob and Kaplan (1972) related perceived risk to five different types of loss: financial, performance, physical, psychological and social. The authors claimed that a consumer might come across these losses from a purchase that is not satisfactory. Thus, amount at stake is given by the relevance of these potential types of loss for a specific product.

Peter and Tarpey (1975a, b) tried to combine the dual-component model of perceived risk proposed by Bauer and the multi-faceted phenomenon of risk described by Jacob and Kaplan (1972). To accommodate both mind-sets, the authors proposed an extended model of perceived risk which has been described not only as a multiplicative function of probability of loss and importance of loss but also an additive model of the various facets of risk.

However, it must be noted that in the past literature only Jacoby and Kaplan's study discussed all six of these facets and claimed that they are conceptually independent. Most studies only dealt with a subset or, in some cases, combinations of these six facets.

Regarding the online context, the model of Jacoby and Kaplan was extended by Ueltschy et al (2004) to include security risk, which was found to be very important in the online setting (Miyazaki and Fernandez 2001). Recently, a great amount of researches found three types of perceived risks to be particularly relevant when shopping over the internet: financial risk, product risk and security risk (Bhatnagr et al. 2000; Kim et al. 2008).

In line with past research (e.g., Korgaonkar and Karson 2007), I selected two dimensions of perceived risk that are more likely to influence behaviour during online shopping: performance and financial risk. Perceived performance risk refers to the chance that the product will not perform as expected and/or will not deliver the desired benefits (Oglethorpe 1988), whereas financial risk refers to how the choice of a product will affect the individual shopper's capacity to make other investments. Thus, this risk varies with the financial considerations of price in relations to other factors as the consumer's income (Korgaonkar and Karson, 2007).

2.2 PERCEIVED RISK AND SHOPPING METHOD

Risk perception depends on the environment where the purchase takes place. Purchasing on the internet might be riskier than purchasing in and offline retailer. Past literature examined different shopping environments and the way how these can influence consumer's risk perception. For instance, Spence, Engel, Blackwell (1970) investigated the differences in risk perception between buying by mail and buying from a store or a salesperson. As presumed by the authors, the findings of their research

highlighted that consumers perceive more risk in the act of buying by mail than in buying from a store or a sales man.

Cox and Rich (1964) investigated a similar topic but they analysed in their research a different case: the telephone shopping. As this shopping method could represent a substantial increase in revenues for a company, they tried to study whether it is related to a certain level of risk perceived by the consumers and how they can deal with it. The study revealed that, in the case of telephone shopping perceived risk by the consumers is a major behavioural determinant. Indeed, most of the women didn't shop by phone because they were afraid of not getting what they wanted and not satisfying their buying goals.

Past literature typically analysed consumer's risk perception in retail store environment (Hisrich, Dornoff and Ronald, 1972) and on shopping by mail or by phone (Spence, Engel, Blackwell, 1970 and Cox and Rich, 1964).

In the recent years, with the massive evolution of the internet, marketers started analysing perceived risk associated also to an online channel. For example, Korgaonkar and Karson (2007) investigated how the type and level of perceived product risk impact preference when buying a product online from three types of e-tailers. The findings of the study highlighted that pure play e-tailers will continue to be disadvantaged compared to the clicks and mortar e-tailers as they need to fully earn the trust of consumers. The literature suggests that trust is essential for the development of e-tailing as it is capable to minimize the feeling of risk and lack of control that consumer can often encounter during e-tailing transactions (Bhattacherijee, 2000).

Research to date suggests that perceived risk is likely to be a useful cue to understand a variety of online consumer behaviours (Donthu & Garcia, 1999). However, little is known about how risk perceptions

can be moderated by different risk relievers used by consumers. For this reason, this research will try to shed more light on the topic.

2.3 PRODUCT RISK

The previous paragraph analyses how perceived risk can influence different buying situation according to the environment where the purchase takes place. As online shopping is a non-store purchasing and it's difficult for consumers to observe the quality of the product they intend to buy. Consumers can rely on limited amount of information, such as pictures and graphics, while purchasing on the internet. Consequently, the purchased products may not function as expected. This is called product risk and it is related to product performance risk, which refers to the possibility that the product will not function as expected and/or will not provide the desired benefits (Oglethorpe 1988).

Several studies demonstrated that product performance risk increases in online environment (Korgaonkar and Karson, 2007). Thus, this paper extends the present literature in understanding how this performance risk associated to an online purchase can be decreased.

2.4 RISK-REDUCTION STRATEGIES

In a purchase decision-making process, the buyer often needs to take some risks or suffering some type of loss. In order to reduce the level of perceived risk the consumer may adopt different methods to reduce the risk of loss.

In the past literature, not only perceived risk was investigated as a variable that can affect consumers' purchase decisions. Indeed, many authors addressed several strategies or extrinsic cues to totally or partially relieve the customer's sense of uncertainty when making a buying decision. Some of the most significant papers that took in consideration these risk-reduction strategies are the ones of Cox (1961),

Jagdish, Sheth and VenkatesanRoselius (1968) and Roselius (1971). The first author claimed that there are two ways to reduce perceived risk encountered during a buying process. Either the consumer can do something to increase the certainty of his prediction of the probable consequences of his decisions or he can reduce the amount of stake. According to the author (1961, 1964), the risk reduction strategy consisted essentially in the reduction of the uncertainty involved in the buying decision process.

Jagdish, Sheth and VenkatesanRoselius (1968) extended the existing literature by applying the risk reduction processes in repetitive buying decisions. By implementing a dynamic framework and executing more than one-time survey to the group, they could observe how risk-reduction strategies can effectively change over the time and measure the impact they have in different phases. Moreover, in the second article the author provided several risk relievers for the consumers, verifying how those relievers can be ranked based on how helpful they are for reducing the uncertainty during a buyer decision process.

According to Roselius (1971), there are four main strategies that can be implemented as a risk resolution:

- Either the consumer can reduce perceived risk by decreasing the probability that the product will fail or by reducing the loss suffered if the product does fail.
- We can shift from on type of perceived loss to one for which he has more tolerance
- He can postpone the purchase
- He can make the purchase and absorb the unresolved risk.

In this work, the author used different type of risk relievers, represented by a device or action, to reduce the threat of various kind of loss (time loss, hazard loss, ego loss and money loss).

Other researches that focused on reducing the amount of uncertainty about the consequences related to a purchase was the one from Sheth, Venkatesan, (1968), who stated there are three major ways to reduce perceived risk:

- Information seeking from informal, personal sources such as friends or reference groups

- Pre-purchase deliberation

- Reliance on brand image, which may create brand loyalty.

It should be noted that all the researches mentioned above focused on reducing the uncertainty that a consumer might face during a buying situations. In the past literature authors offered several risk reduction strategies, or risk relievers to help the consumer to make its purchase. Consumers might refer to different intrinsic or extrinsic cues to reduce their perceived risk in a certain buying situation. Intrinsic cues are the one related to the composition of the product while extrinsic cues are external to the product itself and can be represented by brand, price, warranty, advertisement and retailer (Shimp and Bearden, 1982).

Roselius (1971) provided eleven different type of risk relievers that were rated by subjects based on how helpful they were or reducing different kinds of loss. The risk relievers employed in the research were endorsements, brand loyalty, major brand image, private testing, store image, free sample, money-back guarantee, government testing, shopping, expensive model and word-of-mouth.

According to Cox, there are two main strategies in order to reduce uncertainty and they are seeking information on the probable consequences of a buying decisions and relying on past experiences. The author pointed out that each of the interviewed group of subject had their own way of reducing risk during a purchase act.

Researches that are more recent looked specifically at the relative importance of risk relievers in the eCommerce world. Tan (1999), Van den Poel and Leunis (1999) and Cases (2002), conducted key studies in this area. Both Tan and Van den Poel examined the list of Roselius's risk relievers, while Cases examined whether in the online context appeared new types if risk relievers. This last study suggested that rather than create new risk relievers, it is more useful and appropriate to adapt the known relievers to this new shopping method, as the risk reliever nature seems to be the same even though the environment changes (Cases, 2002).

Considering past literature, risk reduction strategies can be represented by advertisement, word of mouth, brand/store loyalty, price information and money back guarantee (Roselius, 1971). As previous research focused on specific risk relievers in the online environment, like money back guarantee in Cases's study (2002), little is known about the effect of other risk relievers in the online context. For this reason, I would like to analyse whether the most powerful relievers in the offline channel (brand awareness, price information and Word of mouth) are relevant in the online environment as well and what is the best combination for marketers to reduce risk in consumers.

3 HYPOTHESIS

Based on above considerations, it should be noted that consumers use different strategies to reduce uncertainy according to the level of risk, the environment where the purchase takes place and the type of product they aim to buy. In order to extend the past literature, I decided to consider three different risk reduction methods to understand how those can influence the consumer's risk perception in the online channel.

3.1 BRAND AWARENESS

The first strategy would be Brand awareness. In the past literature brand was employed different times as a risk reliever. Bauer (1960) suggested in his first work that brand loyalty is one of the most effective risk relievers for customers: Much brand loyalty is a device for reducing the risks of consumer decisions".

In another study, Arndt (1967b) found that consumer affected by high perceived risk for coffee were more likely to be brand loyal and hence less likely to buy the new coffee.

A similar evidence of this relationship was found by Cunningham (1967c), suggesting that where risk is generally low for a product category than brand loyalty plays a smaller role as a risk reduction strategy. Sheth and Venkatesan (1968) implemented brand loyalty as one of the three risk reduction strategies. The authors analysed how brand loyalty may serve as a risk reliever in repetitive consumer behaviour and they found support for their hypothesis that brand loyalty increased over time. However, it should be mentioned that the development of brand loyalty was slightly greater for the low-risk group as compared with the high-risk group. In the conclusion part of the research, the authors stated that:

"Perceived risk is a necessary condition only for the development of brand loyalty. The sufficient condition is the existence of well-known market brand on which a consumer can rely".

Roselius (1971) analysed how 13 different strategies could be used as a risk relievers and decrease the risk of loss. One of those relievers implemented was Brand loyalty and the authors found that it reduced perceived risk rather than actual risk of loss.

It should be noted that Brand loyalty is one of the most important strategy that was investigated in the past literature by different authors and all of them found that it reduced consumers' risk perceptions (Sheth and Venkatesan, 1968, Griffin and Viehland, 2010).

However, some relievers may receive a higher or lower rank if associated with certain methods of purchase or with specific types of product. For this reason, since brand loyalty was one of the main risk relievers in the offline channel, it seems reasonable to investigate whether it can play a relevant role in the online one as well. Also according to Korgaonkar and Karson (2007), carrying well-known brands is considered as a way of reducing the risk of purchasing products from e-tailers.

H1a: The higher the brand awareness the lower the perceived performance risk associated with an online purchase of an experience good.

H1b: The higher the brand awareness the lower the perceived financial risk associated with an online purchase of an experience good.

3.2 PERCEIVED PRICE

The second independent variable investigated in the research is perceived price. Consumers are known to impute quality from price (Monroe, 1973). Indeed, the author found a positive relationship between

price and quality, especially over some range of prices for some product categories. The authors stated that when price information is available and the buyer is uncertain about the product quality, he could use price as a criterion for accessing quality.

However, according to Stafford and Enis (1969), price is not the only cue that could be used in order to access quality. Indeed, the authors extended the price-quality relationship including another independent variable in the study, represented by store information. The aim of their study was to extend the product quality concept since consumers have access to multiple cues when buying a product and investigated whether a possible relationship between quality, price and store information is possible.

Other past studies investigated how perceived price affects Perceived performance risk. It is interesting to report that some researches suggested that a relatively high price will reduce a consumers' perception of the performance risk associated with the purchase of a product (Peterson and Wilson 1985), while other studies reported little or no effect of price on perceived performance risk (Shimp and Bearden 1982; White and Truly 1989).

Seemingly to Brand awareness, perceived price was analysed in the past researches focused on offline marketplace (Shimp and Bearden, 1982) and revealed to be an important risk reliever. For this reason, the paper examines how price can be used as an extrinsic cue and reduce risk perceptions of consumers when they buy experience products over the internet. Thus, the second hypothesis would be:

H2a: The higher the perceived price the lower the perceived performance risk associated with an online purchase.

On the other hand, the relationship between perceived price and financial risk is expected to be direct rather than inverse, since the more one pays for a product, the higher the financial burden and the greater the potential loss. Thus, it is hypothesized that:

H2b: The higher the perceived price the higher the perceived financial risk associated with an online purchase.

3.3 ONLINE FEEDBACK MECHANISM

The third independent variable in the study is online feedback mechanism, (Bolton, Katok and Ockenfels, 2004) specifically the average rating and the volume of reviews. Nowadays the internet is considered one of the most powerful tools as organizations can reach unprecedented audiences at a lower cost than in the past and, at the same time, individuals can make their personal opinions and reactions easily accessible to the global community of internet users. In past literature, word-of-mouth was investigated as a risk-handling tactic. For example, Arndt (1967) studied two different risk-reduction tactics, brand loyalty and seeking additional information which would include word-of-mouth. The results of the research suggested that exposure to favourable word of mouth increased the probability of purchase.

Following Arndt's suggestion, another author investigated word-of-mouth as a risk reduction strategy (Roselius, 1971). The author found that high-risk perceiver group felt this reliever to be equally helpful for all kinds of loss except threats of hazard loss.

Dellarocas (2003) studied how the ancient concept of word-of-mouth can be applied in the modern setting, the online world, and understand the new possibilities and challenges of this powerful system:

the online feedback mechanism. Understanding its logic is very important as it might potentially affect a wide range of activities within their organizations such as:

- Brand building and customer acquisition, online feedback can serve as a low cost and effective channel for acquiring and retaining customers.
- Product development and quality control, online feedback networks can assist an organization to better understand consumer reactions to its current product line (Dellarocas, 2003).

On the other hand, online feedback system could be inefficient in some circumstances. First, online reviews might only represent consumers' preferences. Indeed, online reviews might represent a strong predictor of product sales but they might not influence substantially consumers' decisions. Eliashberg and Shugan's (1997) study found that online reviews serve as predictors rather than influencers of product sales. Second, reviewers are not randomly drawn sample of the user population. Anderson (1998) finds that extremely satisfied and extremely dissatisfied customers are more likely to initiate WOM transfers.

Nonetheless, recent studies identified that online consumer reviews can affect online sales and that it may worth to implement the feedback system in the marketing strategy. For example, Chevalier and Mayzlin (2006) found that online consumer ratings affect product sales in the book market. Zhang and Dellarocas (2006) obtained similar findings in the movie industry.

Online feedback mechanism can be considered different from traditional word-of-mouth for its outstanding scalability, accomplished though the utilisation of the low-cost of internet and the ability of their designers to precisely control and monitor their operation through the introduction of automated feedback mediators (Dellarocas, 2003). Additionally, different authors stated that the major

reason consumers use online feedbacks is to obtain quality information to reduce risk (Bolton, Katok, and Ockenfels 2004; Forsythe and Shi 2003; Pavlou and Gefen 2004).

In the past literature, a close connection is created between information and uncertainty (Nelson, 1970). Information is critical in the online customer reviews system because it can reduce the level of uncertainty of a certain purchase act. Mudambi and Schuff's (2010) work elaborated a model of customer review helpfulness according to product type (experience and service goods) in order to reduce consumers' uncertainty.

Thus, in line with the above considerations, it seems relevant to include in my research as third independent variable online feedback system as it can be considered a great benefit for consumers. Following previous studies (Chevalier and Mayzlin 2006; Zhang and Dellarocas 2006), I will focus on two main variables for Online reviews (the average ranking and the number of reviews). The average ranking reflects the level of consumer satisfaction (Feng Zhu & Xiaoquan Zhang, 2010), while the number of reviews would serve as the volume of discussion. Hereby the fourth hypothesis will be:

> **H3a: The higher the level of online feedback (average ranking and number of reviews) the lower the perceived performance risk associated with an online purchase of an experience good.**

As consumers are unable to experience and evaluate the product prior purchase, online reviews can be used as a cue for them to make their decision in buying a product. From H3a it is assumed that online reviews can lower the performance risk in consumers. This is closely related to financial risk since, if a product is performing well the consumer is more willing to pay higher price for a product. Therefore, here hypothesis H3b:

H3b: The higher the level of online feedback (average ranking and number of reviews) the lower the perceived financial risk associated with an online purchase of an experience good.

Along with the risk reduction strategies it is important to understand how perceived risk would decrease and therefore influence positively the purchase intention. Indeed, it would be expected that the decrease in perceived risk would increase the purchase intention of the consumers. If a consumer is confident and rely on the online channel it will be more likely to buy products and goods online.

For this reason, I will derive the following hypothesis:

H4a: The lower the perceived performance risk the higher the purchase intention

H4b: The lower the perceived financial risk the higher the purchase intention

4 CONCEPTUAL MODEL

The main investigation on the research is whether brand awareness, perceived price and online feedback system (average ranking and number of reviews) might represent risk reduction strategies when customers are buying through an online channel. In addition, the research would provide what is the best mix of strategy that marketers should implement in their business models and how those three interact with each other. The study comprehends two main models. In the first one, the dependent variable will be perceived performance risk and in the second one will be perceived financial risk. The independent variables are brand awareness, perceived price, average rating of reviews and the volume of reviews. Compared to previous studies, the innovative part of my research is the combination of the four independent variables and the experiment setting. All relationships between the hypotheses are exhibited in the conceptual models below:
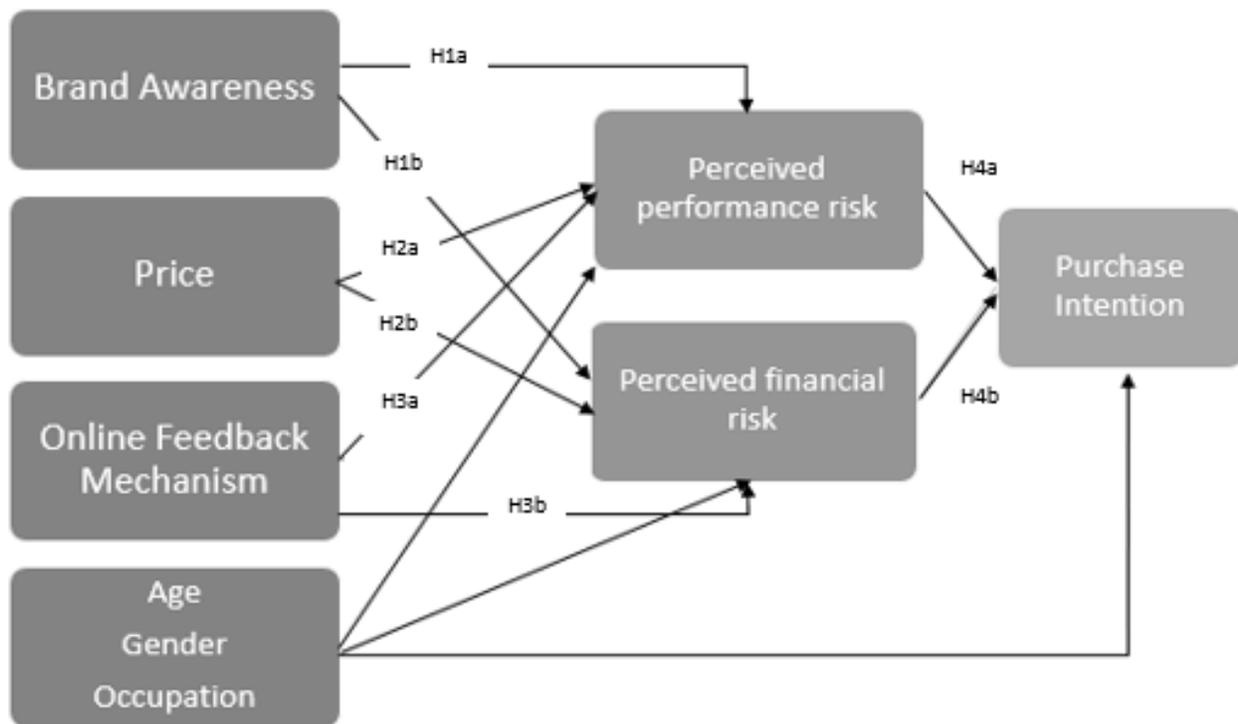
5 RESEARCH METHODOLOGY

5.1 EXPERIMENTAL DESIGN AND PROCEDURE

I performed a within-subject experimental design to analyze the way brand awareness, price, average rating and number of reviews operate separately and conjunctively to influence consumers' risk perceptions. In a "within-subject" designed experiment, each individual is exposed to more than one of the treatments being tested. In this way causal estimations can be obtained by examining how individual behavior changes when the circumstances of the experiment changes. As the research includes many different scenarios to be tested, the use of within subject design experiment is preferable as it requires fewer participants compared to between subject design, making the process more optimized. The implementation of within-subjects design makes it easier to detect differences across levels of the independent variables. In this way, the experiment can easily individuate how a subject reacts to variation in independent variables and it can be concluded which would be the best combination pf dependent level to maximize the purchase intention.

To perform the experiment, the methodology implemented is the conjoint analysis, which would allow examining the relative importance weights of the independent variables to reduce perceived risk for consumers and consequently increase consumers' intention to buy over the internet. Conjoint analysis has been widely adopted in marketing to develop new products and find out which features a product should have in order to appeal to the target audience (Hair et al, 1998, Gil and Shanchez, 1997). The necessary data to carry out conjoint analysis consists of consumer evaluations of alternative product concepts described as sets of attributes levels (Gil and Sanchez, 1997).

The literature review paragraph reported that all types of shopping activities involve some level or risk, due to the uncertainty in the purchasing decision. On the web, there are even more concerns as

consumers are not able to touch, see and experiment the product themselves. For this reason, they have the need to rely on certain cues that might help them to make a decision. In this paper, the three cues that have been investigated are Brand awareness, price and online reviews (considering as the average rating of the reviews and the volume of reviews). Once the attributes are clarified, the levels related to those should be selected. When selecting the levels, it is important to represent what would be realistic in the market and these should cover the entire range or representative levels (Gil and Sanchez, 1997). In this research, the levels were determined based on levels that consumers might realistically face when they shop online. Indeed, the experiment is focused on a real product belonging to the electronic category, a men shaver, and the levels of attribute are based on a market study conducting by GFK Company (GFK Research, 2016). The study analyzed the shaving category, focusing on price thresholds for several products. Three main layers of price were found to be relevant and thus, were reported in this analysis.

In addition, to keep the authenticity in the paper, the levels of reviews (the average rating as well as the volume of reviews) applied in the survey follow the Amazon structure. On the retailer pages there are several levels of average rating and volume of reviews for products that help customers to refine and make their choices.

In the paper, each attribute was described by three different levels, leading to 81 possible scenarios (3x3x3x3).

The different attributes and related levels are shown in Appendix 1 (Table I).

As it would be difficult for respondents to express a preference for so many scenarios in the survey, an orthogonal design is performed in order to get 9 scenarios that can be implemented in the survey (De

Pelsmacker, Van Kenhove, Janssens, Wijnen, 2008). Orthogonal design is a solution offered by conjoint analysis, which ensures the absence of multi-collinearity between attributes. Indeed, when more than one factor is investigated at the same time, interaction effects may arise between these factors. Conjoint analysis makes an abstraction of these interaction effects, assuming they do not exist and that only main effects are possible. When this assumption is made, a fractional design is built, called orthogonal design, whereby only the main effects are estimated. For this reason, from the above 81 possible combinations only 9 scenarios are obtained from the orthogonal design and can be found in Appendix 2 (Table II).

To gather the required data, I carried out a survey of several questions regarding the independent, dependent and control variables. The survey was built in Qualtrics and was distributed online. Each respondents was presented with 9 different scenarios. This design would allow evaluating how consumer's decisions changed according to different treatments and assessing which combination of strategies is the best one to reduce consumer risk perceptions.

One of the disadvantages in the within-subject design is that the order of exposure to the multiple scenarios can affect the reference and framing of treatments. For this reason, I use the randomization option in Qualtrics to randomize the order of the treatment in order to avoid order biases and carryover effects. Indeed, when using the within-subject design it is fundamental to understand that exposure to several scenarios has psychological consequences on the respondents. Specifically, for a respondent the second scenario is always biased by him exposure to the first one.

5.2 MEASUREMENTS

The survey contains questions about the perceived performance and financial risk the consumers assign to every single scenario and in the end the likelihood for them to purchase the product. In addition, the survey contains also three controls variables: age, gender and occupation. To measure perceived performance and financial risk I used the items identified by Shimp and Bearden's (1982) scale, which has been implemented also by other authors (Grewal, Gotlieb and Marmorstein, 1994). The scales are based on three-item constructs. Bergkvist and Rossiter (2007) compared the predictive validity of single-item and multiple item in order to measure two of the most fundamental constructs in marketing, respectively the attitude toward the ad (AAd) and attitude toward the brand (ABrand). The authors in the research explained the different arguments that support the two different type of scales in order to assess which can be used to measure marketing constructs. They stated that from a theoretical point, multiple-item measures are considered more "reliable" because they allow computation of correlations between items. On the other hand, the authors explained also the advantages of single-item scale. Indeed, the preference for single-item scale is based on a practical need more than a theoretical one. Single-item measures minimize respondent refusal and reduce data collection. Rossiter (2002) in his work C-OAR-SE procedure for scale development, is the only one stating that a single-item scale is sufficient when the construct of meets some essential conditions. Indeed, the construct needs to be conceptually defined in terms of (1) the object, including its constituents or components, (2) the attribute, including its components, and (3) the rater entity. For the author the object of the construct must be "concrete singular" and the attribute is "concrete".

The reason to implement single-item scales in my research originates from both a theoretical (Bergkvist and Rossiter, 2007; Rossiter, 2002) and practical need. First, the survey of the research contains nine

different scenarios and a single-item scale would be advantageous in such large-scale survey and in research context in which time constraints limit the number of item that can be administered (Robins, Hendin and Trzesniewski, 2001). On the other hand, as the respondents are exposed to many scenarios, it is important to find a reliable single-item scale in order to keep the survey as short as possible for the respondents. In order to do this, I based my assumptions on Rossiter's (2002) theory implementing in my study two single-item scales for perceived and financial risk, which are focusing on a concrete and singular objective (meaning that only one object has to be rated) and a concrete attribute (meaning that nearly every respondent describes the attribute in the same way). As the Rossiter's assumptions are met the scales can be identified as reliable construct of perceived and financial risk.

The scale used in the research consists in a single-item rated on five-point that can be found in the survey. The survey that was presented to the sample group can be found in Appendix 3.

6 DATA ANALYSIS AND RESULTS

In this section, the survey results and the significance of the hypothesis are analyzed. First, I check the reliability of the multi-item constructs. Then I provide descriptive statistics. Finally, I test the hypothesis with a series of linear mixed models.

After collecting the respondent data, the next step is to code the data in an appropriate way for estimating utilities and different weights of the independent variables. This procedure is required in order to analyse the data with a linear mixed model.

The use in the research of a linear mixed model derives from the design of the experiment implemented. Indeed, the respondents of the sample group contribute with multiple responses to the data set. The model includes a continuous outcome variable, which is represented by perceived performance risk, financial risk and likelihood to buy the product. These continuous variables are closely related to a set of explanatory or predictor variables, which are represented by the independent and control variables. The model expands the ordinary linear regression model by allowing one to incorporate lack of independence between observations that could not have been possible with a linear regression model.

The term mixed model refers to the use of both fixed and random effects in the same analysis. Fixed effects have different levels that are considered of primary interest whereas random effects have levels that are not of primary interest, but rather are thought as a random selection from a sample of population. Subject effects are almost always random effects, while treatment levels are almost always considered as fixed effects.

The linear mixed model can be thought as a type of hierarchic model where fixed and random effects contribute to different levels in the model (Rice & Yen, 2010). The hierarchy in the model arises from two levels, specifically one for the subjects and the second one for the measurements within subjects. To be more precise, the first level in the study is referring to the respondents involved in the experiment whereas the second level is related to the measurements we present to the subjects and specifically the different product features. The linear mixed model can contain also more than two levels in some situations, but in this study we only focused on a 2-level linear mixed model. Here below the model is divided in the two levels. The independent variables represented by brand awareness, price, average rating and number of reviews are considered fixed effects of the model and they vary across the products and the several scenarios presented to the subjects. Age, gender and occupation can be considered as covariates and in turns fixed effects that vary across the different respondents/subjects included in the sample group.

1) **Subjects** = β_1 (Age) + β_2 (Gender) + β_3 (Occupation) + η_i

2) **Product** = β_0 + β_1*Brand awareness+ β_2*Price + β_3*Average rating + β_4*Number of reviews + ε_i

Where ε, η are the standard errors of the estimate measuring the accuracy of predictions.

The previous equations represent the detailed levels of the linear mixed model implemented in the analysis. The main statistical models analysed comprehend both fixed effects and random effects and can be summarized as follow:

1) **Perceived Performance Risk$_i$** = β_0 + β_1*Brand awarenss+ β_2*Price + β_3*Average rating + β_4*Number of reviews + β_5 (Age) + β_6 (Gender) + β_7 (Occupation) + ε_i

2) **Perceived Financial Risk**$_i$ = β_0 + β_1*Brand awarenss+ β_2*Price + β_3*Average rating + β_4*Number of reviews + β_5 (Age) + β_6 (Gender) + β_7 (Occupation) + η_i

3) **Likelihood to buy** = β_0 + β_1*Perceived Performance Risk + β_2*Perceived Financial Risk+ β_5 (Age) + β_6 (Gender) + β_7 (Occupation) + ψ_i

Where ε, η and ψ are the standard errors of the estimate measuring the accuracy of predictions.

6.1 RELIABILITY

The study employed single-item five-point measures of performance risk and financial risk (see Appendix 3). The scales used to measure perceived risk and financial risk were based on the three-item seven-point scale deployed by Shimp and Bearden's (1982). These scale were found to be reliable with α=0.77 for performance risk and α=0.90 for financial risk.

6.2 HYPOTHESIS TESTING

6.2.1 Perceived Performance Risk

In order to test the hypothesis of the research I conducted three different linear mixed models. The first analysis performed in the study is the one related to Perceived risk hypothesis. When conducting a multiple regression analysis the first thing to do is to check the assumptions. The first model proposed in the study assumes that brand awareness, price and online feedback mechanism lie at the basis of the overall perceived risk. In the model both the dependent and independent variables are treated as interval scales, assuming that the Likert scale used to measure perceived performance risk has equal appearing intervals. Additionally, perceived performance risk in the study is estimated as the level of

certainty that a product would work satisfactorily. The same assumptions were made for the four independent variables. On the other hands, age was treated as a continuous variable, gender as nominal and occupation as a categorical variable.

First I run the linear mixed model, including as dependent variable perceived performance risk and as fixed effects the four independent variables and the three control ones. The independent and control variables were included as fixed main effects in SPSS model.

The findings from the linear mixed model (Table 1) show that the main effects of the brand awareness, the average rating and the high level of reviews are significant and have an effect on the certainty of a good performance of the product which in turns, would decrease perceived performance risk among the consumers. Whereas price and low volume of reviews don't have effect on the certainty of the performance and don't influence perceived risk for the consumer. In addition, one out of three control variables is found to be relevant and significant for perceived risk. This is age with a Sig. value of 0.038.

Specifically, as per Hypothesis H1a, brand awareness should be significant and the higher the level of brand awareness the lower the perceived risk in the consumer. Indeed, the findings of the model showed how brand awareness does have an effect on perceived performance risk; in addition the estimates for high level of brand awareness is positive and significant (Appendix 4), which means the higher the level of independent variable the higher the level of certainty of the product and in this case the lower the perceived performance risk if the product. On the other hand the coefficient are decreasing from high level to low level of brand awareness, meaning that the higher the independent variable the higher the effect on the dependent variable. Among the three level of brand awareness the most preferred one to reduce perceived performance risk is the high level. Hence, it can be stated that **H1a is supported**.

In order to test Hypothesis H2a, I analyzed the coefficient table and no significant effect is found on price. It can be assumed that the variable price doesn't influence perceived risk in the consumers. Therefore, **H2a is not supported** by this regression model.

The third variable that was expecting to be significant and to have effect on perceived risk was the online feedback mechanism. In the research this construct was a combination of 2 different variables: average rating of the product reviews and the volume of reviews related to the product. In the first case the variable was found to be relevant for perceived risk and the estimates confirmed the hypothesis; specifically, such as for brand awareness, it can be concluded that the higher the average rating the higher the certainty of the product performance and the lower the perceived performance risk. Whereas the second variable, volume of reviews, it is found to be relevant only for the high number of reviews. From the model, it can be observed that the coefficient for high level of reviews is positive which means the higher the volume of reviews the higher the certainty around the performance of the product so the lower the perceived performance risk. Therefore, it can be assumed that **H3a is supported** by the model.

To sum up, the model finds that the best product combination to reduce perceived performance risk in a consumer is the high level of brand awareness, the high average rating and the high volume of reviews.

Table 1: Estimates of Fixed effects on Perceived Performance Risk:

PARAMETER	ESTIMATES	STD. ERROR	SIG.
Intercept	.630482	.276976	.023
Brand Awareness high	.721576	.074306	.000
Brand Awareness Medium	.315217	.074305	.000
Brand Awareness Low	0[b]	0	.
Price High	-.007246	.074305	.922
Price Medium	.022301	.074306	.764
Price Low	0[b]	0	.
Average Rating High	2.622627	.074306	.000
Average Rating Medium	1.390742	.074306	.000
Average Rating Low	0[b]	0	.
Number of reviews High	.242192	.074306	.001
Number of reviews Medium	.053786	.074306	.469
Number of reviews Low	0[b]	0	.
Gender=Female	-.055971	.063432	.378
Gender=Male	0[b]	0	.
Occupation=Paid Employed	.021043	.108796	.847
Occupation=Self-employed	.103541	.156295	.508
Occupation=Student	.057778	.117363	.623
Occupation=Unemployed	0[b]	0	.
Age	.017782	.008541	.038

a. Dependent Variable: Performance Risk

b. This parameter is set to zero because it is redundant

6.2.2 Perceived Financial Risk

The second linear mixed mode analysis performed is the one related to perceived financial risk as dependent variable. The aim of this analysis is to understand whether the main independent variables influence the dependent one and how these effects can vary according to the level of price, brand

awareness and online reviews. The procedure of the analysis would be the same as the previous one. The database from the respondents are collected in SPSS and I performed a linear mixed model to analyze the data.

The findings in the coefficient table (Table 2) show which independent variables have an effect on perceived financial risk. Brand awareness, price and the average rating are found to be significant in influencing perceived financial risk, while the volume of reviews doesn't have effect on the dependent variable with a value greater than 0.05.

Specifically, brand awareness interaction on financial risk is significant with a Sig. of 0.000. The estimates of fixed effects table (Table 2) shows that the higher the level of brand awareness the higher the impact on financial risk. Indeed, the coefficient is negative and is decreasing a across the level of the independent variables. This would mean that the higher the brand awareness the lower the financial risk associated to an online purchasing act. Therefore, as expected, it can be stated that **H1b is supported** by the model.

Following my hypothesis, the next variable analyzed was price and was expected to be the most relevant to financial risk. Indeed, price is found to be significant with a Sig. of 0.000. As hypothesized, it can be sustained from the estimates that the higher the level of price the higher the impact on perceived financial risk and the lower the price the lower the effect on financial risk. Hence, **H2b is supported** by the mixed model.

The third hypothesis is the one related to online feedback mechanism. Likewise, the previous model related to performance perceived risk, the variable average rating is found to be relevant for both with an overall Sig. value of 0.000, while the number of reviews variable doesn't influence the dependent

variable as the Sig. value is greater than 0.05. Therefore, the model confirmed that average rating has

an effect on financial risk; in addition the coefficients table indicates, as expected, that if the average

rating is high the lower the financial risk and on the other hand if the average rating is low the higher

the financial risk. Therefore, it can be stated that **H3B is supported** with regards of the variable average

rating but not for the volume of reviews variable

Table 2: Estimates of Fixed effects on Perceived Financial Risk:

Parameter	Estimate	Std. Error	Sig.
Intercept	5.232370	.754769	.000
Brand Awareness high	-.801268	.080243	.000
Brand Awareness Medium	-.442029	.080241	.000
Brand Awareness Low	0[b]	0	.
Price High	.376812	.080241	.000
Price Medium	.151630	.080243	.059
Price Low	0[b]	0	.
Average Rating High	-2.455978	.080243	.000
Average Rating Medium	-1.340036	.080243	.000
Average Rating Low	0[b]	0	.
Number of reviews High	-.169746	.080243	.035
Number of reviews Medium	-.126268	.080243	.116
Number of reviews Low	0[b]	0	.
Gender=Female	.056605	.068500	.409
Gender=Male	0[b]	0	.
Occupation=Paid Employed	-.128786	.117488	.273
Occupation=Self-employed	-.197104	.168782	.243
Occupation=Student	-.162376	.126739	.200
Occupation=Unemployed	0[b]	0	.
Age	-.019552	.009224	.034

a.   Dependent Variable: Financial Risk

b.   This parameter is set to zero because it is redundant

6.2.3 Purchase Intention

The last step in the analysis section is related to the assumptions of a mediating role of perceived performance risk and financial risk on purchase intention. Mediating variable transmits the effect of an antecedent variable (independent variables) on to a dependent variable, thereby providing more detailed understanding of the relations between the variables included in the model (MacKinnon and Fairchild, 2009). In the research we assumed that the independent variables are brand awareness, price, average rating of the reviews and volume of reviews. Most of these variables were found to be significant and to have an effect on perceived performance risk and financial risk. In this part of the analysis the objective is to understand whether perceived performance risk and financial risk can have a role as mediators on purchase intention, which is considered to be the main dependent variable. Numerous studies were done on the mediators and moderators variables and in this paper, in order to test the presumed mediating effect of some variables, I followed a variation of Baron and Kenny's Causal-Steps approach (1986), precisely the Joint significance test, described by MacKinnon et al. (2002). The first one followed four steps to test the presence of mediation:

1) The total effect of X on Y (x) must be significant.
2) The effect of X on M (α) must be significant.
3) The effect of M on Y controlled for X (β) must be significant.
4) The effect of X on Y controlled for M (τ') must be smaller than the total effect of X on Y (τ).

Whereas the Joint significance test ignores τ' and uses the significance of α and β coefficients to analyze mediation. If both α and β are found to be significant, mediation is present.

I executed this procedure and I first checked the effect of the independent variables on the dependent variables (step 1). Therefore, first I run a linear mixed model with independent variables brand

awareness, price, average rating and number of reviews and as dependent variable purchase intention. The results (Table 3) highlighted that all the four independent variables included in the analysis are significant on purchase intention as the Sig. value is below 0.05. The only control variable found to be relevant on the dependent one is age.

Table 3: Estimates of Fixed effects on Purchase intention:

Parameter	Estimate	Std. Error	Sig.
Intercept	.331907	.523116	1.000
Brand Awareness high	.643413	.079209	.000
Brand Awareness Medium	.347826	.078320	.000
Brand Awareness Low	0[b]	0	.
Price High	-.391304	.078320	.000
Price Medium	-.171805	.079209	.030
Price Low	0[b]	0	.
Average Rating High	2.519631	.079209	.000
Average Rating Medium	1.302240	.079209	.000
Average Rating Low	0[b]	0	.
Number of reviews High	.237022	.079209	.003
Number of reviews Medium	.182674	.079209	.021
Number of reviews Low	0[b]	0	.
Gender=Female	-.004422	.067257	.948
Gender=Male	0[b]	0	.
Occupation=Paid Employed	-.063021	.114769	.583
Occupation=Self-employed	.002969	.165816	.986
Occupation=Student	.051049	.123998	.681
Occupation=Unemployed	0[b]	0	.
Age	.035534	.009115	.000

a. Dependent Variable: Purchase Intention

b. This parameter is set to zero because it is redundant.

The second step of the method suggests identifying the relationship between the independent variables on the mediators. In this case, I already run the two linear model mixed analysis and the main results indicated that the significant variables are brand awareness, average rating and the number of reviews for perceived performance risk while for financial risk brand awareness, price and average rating are the ones significant.

To implement the third step I run two different linear mixed models: one containing the mediator perceived performance risk, the independent variables and purchase intention as dependent variable and the other including mediator financial risk, the independent variables and purchase intention as dependent variable. In the first model, the effect of perceived performance risk is found to be significant on purchase intention with a Sig. of 0.000 as well as for brand awareness, price and average rating (Table 4). When including perceived performance risk as a independent variable, the volume of reviews doesn't not have impact on the dependent variable. Instead, price is influencing the purchase intention.

Table 4: Estimates of Fixed effects including performance risk on Purchase intention:

Parameter	Estimate	Std. Error	Sig.
Intercept	3.403133	.232282	.000
Brand Awareness high	.172459	.055846	.002
Brand Awareness Medium	.117940	.051836	.023
Brand Awareness Low	0[b]	0	.
Price High	-.366805	.054022	.000
Price Medium	-.160898	.052483	.002
Price Low	0[b]	0	.
Average Rating High	.616811	.096474	.000
Average Rating Medium	.242325	.079058	.002
Average Rating Low	0[b]	0	.
Number of reviews High	.026022	.054216	.631
Number of reviews Medium	.098016	.052530	.062
Number of reviews Low	0[b]	0	.
Gender=Female	.032120	.043636	.462
Gender=Male	0[b]	0	.
Occupation=Paid Employed	-.059859	.074510	.422
Occupation=Self-employed	-.073179	.107602	.497
Occupation=Student	.050461	.080721	.532
Occupation=Unemployed	0[b]	0	.
Age	.024287	.005988	.000
Performance Risk_1	-4.339209	.150661	.000
Performance Risk_2	-2.807718	.120923	.000
Performance Risk_3	-2.152588	.113130	.000
Performance Risk_4	-1.315193	.097444	.000
Performance Risk_5	-.642200	.085088	.000
Performance Risk_6	0[b]	0	.

a. Dependent Variable: Purchase Intention

b. This parameter is set to zero because it is redundant.

The last linear mixed model I analyzed was the one that investigates the effect of financial risk on purchase intention. As the previous step, I run a new analysis and the results indicate that financial risk has also an effect on purchase intention and can be considered a predictor of purchase intention.

The main variables that influence purchase intention in this model are brand awareness, price, average rating and also the two control variables occupation and age (Table 5). Indeed, as expected also occupation can be considered a predictor of purchase intention as it determines the level of income that a person has at his/her disposal and in turns the likelihood for them to perceived less or more risk when buying the product on an online platform.

Table 5: Estimates of Fixed effects including financial risk on Purchase intention

Parameter	Estimate	Std. Error	Sig.
Intercept	.432927	.193151	.025
Brand Awareness high	.186810	.055759	.001
Brand Awareness Medium	.082328	.053327	.123
Brand Awareness Low	0^b	0	.
Price High	-.157258	.053228	.003
Price Medium	-.076649	.052718	.146
Price Low	0^b	0	.
Average Rating High	1.035647	.083882	.000
Average Rating Medium	.458168	.070600	.000
Average Rating Low	0^b	0	.
Number of reviews High	.057683	.053069	.277
Number of reviews Medium	.082339	.054427	.131
Number of reviews Low	0^b	0	.
Gender=Female	.016076	.043914	.714
Gender=Male	0^b	0	.
Occupation=Paid Employed	-.085815	.074982	.253
Occupation=Self-employed	-.173304	.108301	.110
Occupation=Student	.086518	.081026	.286
Occupation=Unemployed	0^b	0	.
Age	.026446	.006005	.000
Financial Risk_1	-1.753277	.148244	.000
Financial Risk_2	2.457370	.106250	.000
Financial Risk_3	1.875765	.097419	.000
Financial Risk_4	1.362821	.089603	.000
Financial Risk_5	.693124	.075164	.000
Financial Risk_6	0^b	0	.

a. Dependent Variable: PI

b. This parameter is set to zero because it is redundant

Following these findings it can be concluded from the estimates table that perceived performance and

financial risk have an influence on purchase intention and that these variables are influenced by other

variables like brand awareness, price, average rating and number of reviews. When analyzing the coefficient tables, it's clear that the higher the level of certainty of the product (on a scale from 1-5) the higher the purchase intention in the consumer. This applies also to financial risk variable, where the estimates indicate that the higher the financial risk the lower the purchase intention among the subjects. Therefore, with these findings, it can be stated that **H4 is satisfied** as both financial risk and performance risk do have an influence on purchase intention.

7 CONCLUSIONS

7.1 GENERAL DISCUSSION

The research is based on an experiment in order to test how consumers perceived risk when buying a product online and it has the aim to identify the best combination of features to maximize the purchase intention among the consumers and in turns to increases sales. The experiment was conducted through an online survey delivered to a sample size of around 150 people. Out of those 92 filled in the survey, leading to a completion rate of 62%.

The research took into consideration several variables that were found in previous works to be the main drivers to reduce perceived risk in the consumers and included also new variables in order to broader the existing stream of researches.

Indeed, according to past literature, brand awareness was considered one of the main strategies to reduce perceived risk in the consumers (Sheth and Venkatesan, 1968; Griffin and Viehland, 2010; Korgaonkar and Karson, 2007). My results confirm that brand awareness is an effective strategy to mitigate perceived risk having an impact both on perceived performance risk and financial risk. Specifically, results indicate that the higher the level of brand awareness the lower the risk related to product performance and financial risk. Thus, from my study, brand awareness can be considered a risk reliever.

The next risk reliever implemented in previous studies was perceived price. In the past literature, contrasting results were found around the effect of price on perceived risk. For example, Peterson and Wilson's (1985) research suggested that a relatively high price reduce a consumers' perception of the performance risk associated with the purchase of a product, while other studies reported little or no

effect of price on perceived performance risk (Shimp and Bearden 1982; White and Truly 1989). My findings also confirmed Shimp and Bearden's (1982) ones. Indeed, also in this paper, price wasn't found to be relevant on perceived performance risk. On the contrary, the variable had a significant effect on the other risk construct, financial risk, as expected. Precisely, the higher the price you need to pay for a product the higher the perceived financial risk associated to it.

The third risk reliever implemented was online feedback mechanism, which comprehends the average rating of reviews and the volume of the reviews. From past researches, this construct was found to affect online sales in different industries, such as book market and movie industry (Chevalier and Mayzlin, 2006; Zhang and Dellarocas, 2003). In addition, previous studies suggested that online reviews could represent an important reliever of uncertainty about a purchasing act (Mudambi and Schuff's, 2010). Following these assumptions, online feedback mechanism was implemented in the research as the third risk reliever strategy and the findings indicated that the average rating of the reviews has an effect on both performance and financial risk. The findings highlighted that one of the two variables of the construct, precisely the average rating of reviews is more important than the volume of product reviews. Indeed, average rating has a significant effect on both performance and financial risk, meaning that the higher the average rating of the reviews the lower the performance and financial risk associated to an online purchase and thus so the higher the purchase intention in the consumers.

When including performance and financial risk in the model as fixed factors, I found that those variables are relevant to purchase intention and that those are influenced by other variables: brand awareness, price and average rating.

7.2 ACADEMIC CONTRIBUTION

The thesis contributes to verify the past literature and extend it by adding a different combination of risk relievers and an innovative environment, the online context. Indeed, the main innovative part of the research is the experiment setting. In the past literature, little attention was given to the online context and how consumers might react to different purchasing situations; instead, it was more focused on offline shopping environment. The academic contribution of this study relies on the different context included and the testing of known and new risk relievers. A main stream of academics investigated in their researches both brand awareness and perceived price. Those academics considered them as risk relievers in their experiments. However, the effect of online reviews on perceived risk did not receive a lot of importance by researches. Therefore, given the fact that ecommerce is growing exponentially in the last years it must be important to dedicate researches to this central topic.

It is important also to stress that perceived price, was found to be insignificant on perceived performance risk, contrarily the findings proposed by Peterson and Wilson's (1985). On the other hand, price it is considered a good predictor of the financial risk perceived by the consumers as expected. It is obvious that price is affecting financial risk as the consumers, when buying over the internet, perceive a high financial risk when buying a high–end product and perceive less risk when the cost is lower and so the potential loss. It can be concluded then, that price has a direct effect on financial risk.

Contrarily than previous literature, purchase intention is not influenced by both performance and financial risk, but only by the first one. In fact, financial risk was not found to be relevant and significant on purchase intention. So it can't be concluded that if the lower financial risk is the higher is the purchase intention, but at the same it can be stated that the lower performance risk is the higher will be the likelihood to buy for the consumers.

7.3 MANAGERIAL IMPLICATIONS

Along with the academics implications, the primarily aim of the study was to provide a good guidance for marketers when adopting online business models with a solid and real strategy that could reduce the effective risk present among the consumers. The strategy would rely on focusing on certain product characteristics that can influence customers when buying online.

The main recommendations offered by the thesis are essentially three. From the analysis, it clearly results that perceived performance and financial risk are actually influencing the purchase intentions in the consumers and then reducing these effects would lead to a big increase in sales. Thus, the first recommendations for managers is to increase purchase intention by focusing on relieving the risk in the buyers.

When it comes to ways to reduce this risk, we have several possibilities. The thesis offers a strategy on how a product should be presented to the customers in order to be more reliable. From the findings, the most important features that a product needs to have is high level of brand awareness, high average rating of the reviews and high number of reviews. These three features are the one necessary in order to decrease perceived performance risk of the product and eventually increase the purchase intention. Therefore, marketers in order to maximize the certainty that a product would work satisfactorily should present products online from a known brand (a brand with 30 years of experience in the field), with a high average rating score (5 star rating) and with high level of reviews (500 reviews).

The third recommendation is the one regarding financial risk. In order to reduce this one marketers should present a product with high brand awareness, high average rating of reviews and low price (around 50 euro).

If marketers and online retailers are implementing this strategies both for financial and performance risk, they would have higher chances to sell their products to end consumers and have a bigger return on investment.

7.4   LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

Most of the hypothesis of the study were satisfied and the findings were found to be relevant and applicable for both academic literature and managerial applications. Nonetheless, the study has some limitations and should be further improved in future research. First, the sample group included in the survey did not represent a cross-section of all relevant consumer but it was quite homogenous, mainly students. Secondly, I included single-item scale in order to measure performance and financial risk mainly for practical reasons, as the respondents would have to answer too many questions and this would have brought difficulties in filling in the survey. Even though some of the past literature emphasized the use of single-item scale in certain situation, it would be interesting to implement multiple-item scales for the two constructs. Third, I took two main dimension to predict perceived risk, following Shimp and Bearden's (1979) suggestions. On the other hand, a big stream of literature extended perceived risk construct to several variables which were considered as different types of loss, for example performance, social, financial, physical, psychological, time, frustration and so on. For instance, Jacob and Kaplan (1972) related perceived risk to five different types of loss: financial, performance, physical, psychological and social. Thus, it would be interesting to consider perceived risk not only as performance and financial risk but implementing also other types of risk and to verify the most common risks that consumers might face when buying goods and services online.

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8 APPENDICES

Appendix 1: Table I: Attributes of the products and their levels

Attribute	Level	Operationalization
Brand Awareness	High	Well known company with 30 years of experience in the field established as a premium brand
	Medium	Company with 15 years of experience in the field
	Low	Unknown company with less than 5 years of experience in the field
Price	High	200 Euro
	Medium	100 Euro
	Low	50 Euro
Average rating	High	5 Star
	Medium	3 Star
	Low	**1 Star**
Number of reviews	**High**	**500 Reviews**
	Medium	**100 Reviews**
	Low	**40 Reviews**

Appendix 2: Table II. List of Scenarios

Scenario	Brand Awareness	Price	Average rating	Number of reviews
1	High	€ 100.00	1 star	40
2	Low	€ 200.00	3 Star	40
3	Medium	€ 50.00	5 Star	40
4	Low	€ 50.00	1 star	500
5	Medium	€ 200.00	1 star	100
6	High	€ 200.00	5 Star	500
7	High	€ 50.00	3 Star	100
8	Low	€ 100.00	5 Star	100
9	Medium	€ 100.00	3 Star	500

Appendix 3: Survey

<u>Scenario1</u>

Q1.1) Imagine a well-known brand (30 years of experience in the electronic field) of a shaving product for men with the following attributes:

- Price: 100 Euro
- Average rating of reviews: 1 star
- Number of reviews: 40

How certain are you that the product would work satisfactorily?

	1	2	3	4	5	
Uncertain (1)	○	○	○	○	○	Certain

Q1.2) How would you define the investment involved to purchase the product?

	1	2	3	4	5	
Not risky at all (1)	○	○	○	○	○	Extremely risky

Q1.3) How likely are you to purchase the product?

○ Extremely unlikely (1)

○ Somewhat unlikely (2)

○ Neither unlikely nor likely (3)

○ Somewhat likely (4)

○ Extremely likely (5)

Scenario 2

Q2.1) Imagine an unknown brand (with less than 5 years of experience in the electronic field) of a shaving product for men with the following attributes:

- Price: 200 Euro
- Average rating of reviews: 3 star
- Number of reviews: 40

How certain are you that the product would work satisfactorily?

	1	2	3	4	5	
Uncertain	○	○	○	○	○	Certain

Q2.2) How would you define the investment involved to purchase the product?

	1	2	3	4	5	
Not risky at all	○	○	○	○	○	Extremely risky

Q2.3) How likely are you to purchase the product?

○ Extremely unlikely (1)

○ Somewhat unlikely (2)

○ Neither likely nor unlikely (3)

○ Somewhat likely (4)

○ Extremely likely (5)

Scenario 3

Q3.1) Imagine a brand (with 15 years of experience in the electronic field) of a shaving product for men with the following attributes:

- Price: 50 Euro
- Average rating of reviews: 5 star
- Number of reviews: 40

How certain are you that the product would work satisfactorily?

	1	2	3	4	5	
Uncertain	○	○	○	○	○	Certain

Q3.2) How would you define the investment involved to purchase the product?

	1	2	3	4	5	
Not risky at all	○	○	○	○	○	Extremely risky

Q3.3) How likely are you to purchase the product?

○ Extremely unlikely (1)

○ Somewhat unlikely (2)

○ Neither likely nor unlikely (3)

○ Somewhat likely (4)

○ Extremely likely (5)

Scenario 4

Q4.1) Imagine an unknown brand (with less than 5 years of experience in the electronic field) of a shaving product for men with the following attributes:

- Price: 50 Euro
- Average rating of reviews: 1 star
- Number of reviews: 500

How certain are you that the product would work satisfactorily?

	1	2	3	4	5	
Uncertain	○	○	○	○	○	Certain

Q4.2) How would you define the investment involved to purchase the product?

	1	2	3	4	5	
Not risky at all	○	○	○	○	○	Extremely risky

Q4.3) How likely are you to purchase the product?

○ Extremely unlikely (1)

○ Somewhat unlikely (2)

○ Neither likely nor unlikely (3)

○ Somewhat likely (4)

○ Extremely likely (5)

Scenario 5

Q5.1) Imagine a brand (with 15 years of experience in the electronic field) of a shaving product for men with the following attributes:

- Price: 200 Euro
- Average rating of reviews: 1 star
- Number of reviews: 100

How certain are you that the product would work satisfactorily?

	1	2	3	4	5	
Uncertain	○	○	○	○	○	Certain

Q5.2) How would you define the investment involved to purchase the product?

	1	2	3	4		
Not risky at all	○	○	○	○	○	Extremely risky

Q5.3) How likely are you to purchase the product?

○ Extremely unlikely (1)

○ Somewhat unlikely (2)

○ Neither likely nor unlikely (3)

○ Somewhat likely (4)

○ Extremely likely (5)

Scenario 6

Q6.1) Imagine a well-known brand (with 30 years of experience in the electronic field) of a shaving product for men with the following attributes:

- Price: 200 Euro
- Average rating of reviews: 5 star
- Number of reviews: 500

How certain are you that the product would work satisfactorily?

	1	2	3	4	5	
Uncertain	○	○	○	○	○	Certain

Q6.2) How would you define the investment involved to purchase the product?

	1	2	3	4	5	
Not risky at all	○	○	○	○	○	Extremely risky

Q6.3) How likely are you to purchase the product?

○ Extremely unlikely (1)

○ Somewhat unlikely (2)

○ Neither likely nor unlikely (3)

○ Somewhat likely (4)

○ Extremely likely (5)

Scenario 7

Q7.1) Imagine a well-known brand (with 30 years of experience in the electronic field) of a shaving product for men with the following attributes:

- Price: 50 Euro
- Average rating of reviews: 3 star
- Number of reviews: 100

How certain are you that the product would work satisfactorily?

	1	2	3	4	5	
Uncertain	○	○	○	○	○	Certain

Q7.2) How would you define the investment involved to purchase the product?

	1	2	3	4	5	
Not risky at all	○	○	○	○	○	Extremely risky

Q7.3) How likely are you to purchase the product?

○ Extremely unlikely (1)

○ Somewhat unlikely (2)

○ Neither likely nor unlikely (3)

○ Somewhat likely (4)

○ Extremely likely (5)

Scenario 8

Q8.1) Imagine an unknown brand (with less than 5 years of experience in the electronic field) of a shaving product for men with the following attributes:

- Price: 100 Euro
- Average rating of reviews: 5 star
- Number of reviews: 100

How certain are you that the product would work satisfactorily?

	1	2	3	4	5	
Uncertain	○	○	○	○	○	Certain

Q8.2) How would you define the investment involved to purchase the product?

	1	2	3	4	5	
Not risky at all	○	○	○	○	○	Extremely risky

Q8.3) How likely are you to purchase the product?

○ Extremely unlikely (1)

○ Somewhat unlikely (2)

○ Neither likely nor unlikely (3)

○ Somewhat likely (4)

○ Extremely likely (5)

Scenario 9

Q9.1) Imagine a brand (with 15 years of experience in the electronic field) of a shaving product for men with the following attributes:

- Price: 100 Euro
- Average rating of reviews: 3 star
- Number of reviews: 500

How certain are you that the product would work satisfactorily?

	1	2	3	4	5	
Uncertain	○	○	○	○	○	Certain

Q9.2) How would you define the investment involved to purchase the product?

	1	2	3	4	5	
Not risky at all	○	○	○	○	○	Extremely risky

Q9.3) How likely are you to purchase the product?

    ○ Extremely unlikely (1)

    ○ Somewhat unlikely (2)

    ○ Neither likely nor unlikely (3)

    ○ Somewhat likely (4)

    ○ Extremely likely (5)

SPSS Results:

Appendix 4: Model Summary (Dependent Variable: Perceived Performance risk)

Type III Tests of Fixed Effects[a]

Source	Numerator df	Denominator df	F	Sig.
Intercept	1	814.000	108.899	.000
BA	2	814.000	47.401	.000
Price	2	814.000	.086	.918
AV	2	814.000	623.621	.000
NR	2	814.000	5.859	.003
Gender	1	814.000	.779	.378
Occupation	3	814.000	.235	.872
Age	1	814.000	4.334	.038

a. Dependent Variable: Performance Risk.

Estimates of Covariance Parameters[a]

Parameter		Estimate	Std. Error
Residual		.761920	.037767
Intercept	Variance	.000000[b]	.000000

a. Dependent Variable: Performance Risk.

b. This covariance parameter is redundant.

Appendix 5: Model Summary (Dependent Variable: Financial risk)

Type III Tests of Fixed Effects[a]

Source	Numerator df	Denominator df	F	Sig.
Intercept	1	.000	23.000	1.000
BA	2	814.000	50.033	.000
Price	2	814.000	11.166	.000
AV	2	814.000	469.690	.000
NR	2	814.000	2.415	.090
Gender	1	814.000	.683	.409
Occupation	3	814.000	.662	.576
Age	1	814.000	4.493	.034

a. Dependent Variable: Financial Risk

Estimates of Covariance Parameters[a]

Parameter		Estimate	Std. Error
Residual		.888521	.044042
Intercept	Variance	.480213	19372660.3477 05

a. Dependent Variable: Financial Risk.

Appendix 6: Model Summary (Dependent Variable: Purchase Intention)

Type III Tests of Fixed Effects[a]

Source	Numerator df	Denominator df	F	Sig.
Intercept	1	.000	14.254	1.000
BA	2	803.000	33.111	.000
Price	2	803.000	12.541	.000
AV	2	803.000	505.963	.000
NR	2	803.000	4.885	.008
Gender	1	803	.004	.948
Occupation	3	803.000	.688	.559
Age	1	803.000	15.199	.000

a. Dependent Variable: Purchase Intention.

Appendix 7: Model Summary (Dependent Variable: Purchase Intention)

Type III Tests of Fixed Effects[a]

Source	Numerator df	Denominator df	F	Sig.
Intercept	1	798.000	115.685	.000
BA	2	798	5.121	.006
Price	2	798	23.054	.000
AV	2	798	22.281	.000
NR	2	798	1.865	.156
Gender	1	798.000	.542	.462
Occupation	3	798	1.561	.197
Age	1	798.000	16.452	.000
PRISK	5	798	222.819	.000

a. Dependent Variable: Purchase Intention.

Appendix 8: Model Summary (Dependent Variable: Purchase Intention)

Type III Tests of Fixed Effects[a]

Source	Numerator df	Denominator df	F	Sig.
Intercept	1	798.000	109.163	.000
BA	2	798	5.657	.004
Price	2	798	4.367	.013
AV	2	798	80.483	.000
NR	2	798	1.199	.302
Gender	1	798	.134	.714
Occupation	3	798	4.322	.005
Age	1	798	19.394	.000
FRISK	5	798	218.132	.000

a. Dependent Variable: PI.

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