

Changing consumer behavior in the digital age: perceived risk in information search process

Ana Gabriela Balladares Fuentes

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DOCTORAL THESIS

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A mi mamá Casilda.

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KEYWORDS

Perceived risk, Information search, Consumers' decision-making process, Customer journey, Digitalization of the marketing environment, Digital information sources, Qualitative research.

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“Social Media Role in Search and Evaluation of Experiential Products”, the 6th Global Innovation and Knowledge Academy Conference. Valencia, Spain, March 2016.

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ABSTRACT

The digitalization of the marketing environment is changing the manner in which consumers take purchase decisions. Moreover, perceived risk has a determinant role on consumers' purchase decision-making. However, although emerging literature suggests that consumers' use of digital information generates new search and product evaluation processes different from those in traditional purchase setting, theorizing about the pattern and nature of these differences has been limited.

More specifically, contradictory findings on the relationship between perceived risk and information search of experience-type products in digital environments have been identified in current literature. While some studies assert that perceived risk increases information search because one way of reducing risk is to obtain more information, other streams of literature point out that further engaging in information search might actually result in increased risk perception and purchase deterrence.

Therefore, in order to clarify this gap and understand better the phenomenon of perceived risk during digital purchase decision-making process, this research advances with a finer-grained approach and with a longitudinal perspective in order to understand how the digitalization of the marketing environment affects consumers' perceived risks during the process of information search.

By conducting a qualitative multi-method research, this study discloses five stages in the process of risk processing during digital information search. The stages are: preparing for information search; initial information search; advanced information search, preparing for purchase and purchase decision-making and post purchase behavior. Based on these findings, the present study proposes that in the current digital context, perceived risk is a dynamic process consisting of stages in which the different types of risk are perceived by

consumers as they progress in the search stage of the purchase decision-making process. Moreover, the perception of these dimensions of risk fluctuates as consumers search for information. Thus, these findings highlight that the search stage is a dynamic process and suggest that this is one of the reasons why the new customer journey is understood as a cyclic and dynamic process.

Ultimately, this research contributes to the theorizing process of perceived risk in digital information search by providing new insights that suggest that in the current digital context perceived risk is a multidimensional construct that develops, changes and adapts to the information collected in the purchase decision-making process. Thus, this research proposes to understand and theorize perceived risk from a process-driven perspective in order to fully understand its behavior and suggests that the process of perceived risk processing and information search is dynamic and aligned with the cyclic nature of the new customer journey. Finally, this research contributes to the marketing practice by shedding light on where to act and how to mitigate the different types of risk in order to increase customer satisfaction and engagement during information search.

RESUMEN

La digitalización en el entorno del marketing está cambiando la manera en la que los consumidores toman decisiones de compra. Asimismo, el riesgo percibido tiene un rol determinante en las decisiones de compra de los consumidores. Sin embargo, aunque la literatura emergente sugiere que el uso de fuentes de información digital genera nuevos procesos de búsqueda y evaluación de productos diferentes a aquellos de los entornos de

compra tradicionales, el desarrollo de nuevas teorías sobre la naturaleza de estas diferencias ha sido limitado.

Específicamente, se ha detectado resultados contradictorios en la literatura actual en cuanto a la relación entre el riesgo percibido y la búsqueda de información de productos de experiencia en entornos digitales. Mientras que algunos estudios aseguran que el riesgo percibido provoca un aumento en la búsqueda de información, ya que una forma de reducir el riesgo percibido es obtener más información, otra vertiente de literatura señala que buscar información adicional puede más bien resultar en mayor riesgo percibido y en un abandono de la compra.

Por tanto, con el fin de aclarar este gap en la literatura y entender mejor el fenómeno del riesgo percibido durante el proceso de compra digital, este trabajo de investigación avanza con un enfoque pormenorizado y con una perspectiva longitudinal para entender cómo la digitalización en el ámbito del marketing afecta al riesgo percibido por los consumidores durante sus procesos de búsqueda de información.

A través de una investigación llevada a cabo con múltiples métodos cualitativos, este estudio revela que hay cinco etapas en el procesamiento del riesgo percibido durante el proceso de búsqueda de información. Estas etapas son: preparación para la búsqueda de información; búsqueda de información inicial; búsqueda de información avanzada; preparación para la compra y decisión de compra y comportamiento poscompra.

Basado en estos hallazgos, este estudio propone que en la actual era digital, el riesgo percibido es un proceso dinámico que consiste en etapas en las cuales los diferentes tipos de riesgo son percibidos por los consumidores a medida que ellos avanzan en la búsqueda de información durante el proceso de compra. Además, la percepción de estos tipos de riesgo fluctúa a medida que los consumidores buscan información. Por lo tanto, este

descubrimiento elucidada que la etapa de búsqueda de información es un proceso dinámico sugiriendo que este dinamismo es una de las razones por las cuales el nuevo viaje del consumidor se entiende como un proceso cíclico y dinámico.

En definitiva, este trabajo de investigación hace una contribución al desarrollo de teorías del riesgo percibido en entornos digitales al proveer de nuevas evidencias que sugieren que, en el actual contexto digital, el riesgo percibido es un constructo multidimensional que se desarrolla, cambia y adapta en función de la información recolectada en el proceso de compra. Por consiguiente, esta investigación propone entender al riesgo percibido desde una perspectiva de proceso para entender por completo cómo se comporta en el actual entorno digital y sugerir que el proceso del riesgo percibido y búsqueda de información es dinámico y alineado con la naturaleza cíclica del nuevo viaje del consumidor. Finalmente, este trabajo hace una contribución al marketing aplicado al esclarecer dónde y cómo se pueden mitigar los diversos tipos de riesgo durante la búsqueda de información con el fin de incrementar la satisfacción e involucramiento de los clientes en el proceso de compra.

RESUM

La digitalització en el entorn del marketing està canviant la manera en la que els consumidors decideixen comprar. Així mateix, el risc percebut té un rol determinant en les decisions de compra dels consumidors. No obstant això, encara que la literatura emergent suggereixi que l'ús de les fonts d'informació digital generi nous processos de cerca i avaluació de productes diferents a aquells dels entorns de compra tradicional, el desenvolupament de noves teories sobre la naturalesa d'aquestes diferències ha sigut limitada.

Específicament s'han detectat resultats contradictoris en la literatura actual pel que fa a la relació entre el risc percebut i la cerca d'informació de productes d'experiència en entorns digitals. Mentre que alguns estudis asseguren que el risc percebut provoca un augment en la cerca d'informació, ja que una forma de reduir el risc percebut es obtenir més informació, un altre vessant de literatura assenyala que cercar informació addicional pot més aviat resultar en un major risc percebut i en un abandonament de la compra.

Per tant, amb el fi d'aclarir aquest gap en la literatura i entendre millor el fenomen del risc percebut durant el procés de compra digital, aquest treball d'investigació avança amb un enfocament detallat i amb una perspectiva longitudinal per entendre com la digitalització en el entorn del marketing afecta al risc percebut pels consumidors durant els seus processos de cerca d'informació.

Mitjançant una investigació realitzada amb múltiples mètodes qualitius, aquest estudi revela que hi ha cinc etapes en el processament del risc percebut durant el procés de cerca d'informació. Aquestes etapes son: preparació per a la cerca d'informació; cerca d'informació inicial; cerca d'informació avançada; preparació per a la compra i decisió de compra i comportament post-compra.

Basat en aquestes troballes, aquest estudi proposa que en l'actual era digital, el risc percebut es un procés dinàmic que consisteix en etapes on diferents tipus de riscos son percebuts pels consumidors quan avancen en la cerca d'informacions durant el procés de compra. A més a més, la percepció d'aquestes tipus de risc fluctua a mesura que els consumidors cerquen informació. Per tant, aquest descobriment explica que l'etapa de cerca d'informació es un procés dinàmic suggerint que aquest dinamisme es una de les raons per les quals el nou viatge del consumidor s'estén com un procés cíclic i dinàmic.

Finalment, aquest treball d'investigació contribueix al desenvolupament de teories del risc percebut en entorns digitals proporcionant noves evidències i suggerint que en l'actual context digital, el risc percebut es un constructe multidimensional que es desenvolupa, canvia i s'adapta en funció de la informació recollida en el procés de compra. Consegüentment, aquesta investigació proposa entendre el risc percebut des d'una perspectiva de procés per entendre completament com es comporta en el actual entorn digital i suggerir que el procés del risc percebut i cerca d'informació es dinàmic i alineat amb la naturalesa cíclica del nou viatge del consumidor. Finalment, aquest treball vol fer una contribució al marketing aplicat i aclarir on i com es poden mitigar els diversos tipus de risc durant la cerca d'informació amb el propòsit d'incrementar la satisfacció i la participació dels clients en el procés de compra.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	2
KEYWORDS	4
REFEREED PUBLICATIONS & CONTRIBUTION TO CONFERENCES	5
ABSTRACT	6
RESUMEN	7
RESUM	9
CHAPTER 1: OVERVIEW OF THE PROGRAM OF RESEARCH.....	17
1.1 Research Background	17
1.2 Research Justification	18
1.3 Objectives	20
1.4 Originality	21
1.5 Overview of chapters	23
CHAPTER 2: LITERATURE REVIEW	26
2.1 Introduction.....	26
2.2 Purchase Decision-making Process	27
1) Traditional theories of the purchase decision-making process	27
2) Digitalization of the marketing environment.....	31
3) Emerging theories on the purchase-decision making process in the digital environment.....	40
2.3 Theoretical Approaches to Information Search	44
1) Economic theories of search	45
2) Psychological theories of search.....	46
3) Variables involved in information search	47
4) Product categorization	50
2.4 Perceived Risk in Consumer Behavior Theory.....	53
1) Perceived risk types	54
2) Perceived risk and information search.....	54
3) Perceived risk framing, assessment and evaluation.....	56
CHAPTER 3: RESEARCH GAP	63
3.1 Introduction.....	63
3.2 Research Gap Statement	64
3.3 Research Questions	65
CHAPTER 4: RESEARCH DESIGN	68
4.1 Introduction.....	68

4.2	Theoretical Perspective	68
4.3	Methodology	70
1)	Methods and data collection strategy.....	71
2)	Data collection context and sampling strategy	75
3)	Data analysis strategy	76
4.4	Ethical Considerations	79
CHAPTER 5: FINDINGS		82
5.1	Introduction.....	82
1)	Stages in Perceived Risk during Information Search Process	83
5.2	Stage 1: Preparing for information search	85
1)	Use of key reference points	88
2)	Importance of product´s attributes and initial perception of performance risk	89
3)	Initial perception of financial risk.....	90
4)	Action plans to reduce perceived financial and performance risk.....	91
5.3	Stage 2: Initial information search.....	96
1)	Evolution of codes from stage 1 to stage 2.....	97
2)	Emerging codes in stage 2	106
5.4	Stage 3: Advanced information search	118
1)	Evolution of codes from stage 2 to stage 3.....	119
2)	Emerging codes in stage 3	125
5.5	Stage 4: Preparing for purchase decision.....	142
1)	Evolution of codes from stage 3 to stage 4.....	143
2)	Emerging codes in stage 4	151
5.6	Stage 5: Purchase decision-making and post-purchase behavior	165
1)	Evolution of codes from stage 4 to stage 5.....	166
2)	Emerging codes in stage 5	171
5.7	Conclusion of findings.....	186
CHAPTER 6: DISCUSSION		188
6.1	Introduction.....	188
6.2	On the nature of perceived risk and the relationship with information search	189
1)	Understanding the effect of digitalization on perceived risk during information search.....	190
2)	Perceived risk during information search as a process: the role of time	191
3)	Perceived risk and information search relationship in digital environments over time	193

4)	Summary and concluding proposition	196
6.3	On the changes of perceived risk concepts, relationships and meanings as part of the digitalization of the marketing environment.....	197
1)	Trust in digital information develops through the process of information search	197
2)	The use of key reference points	200
3)	The Role of user generated content	201
4)	The role of social risk	202
5)	Summary and concluding proposition	203
6.4	On emerging concepts, relationships and meanings in perceived risk processing during information search in digital environments.....	205
1)	Association relationship between perceived financial risk and perceived performance risk.....	206
2)	Discovery of mechanisms of risk reduction in digital channels	206
3)	Emerging types of perceived risk	209
4)	Summary and concluding proposition	210
6.5	Relationships on the model of perceived risk processing and propositions: Towards the development of theory	213
1)	Dynamic relationship between risk importance and information search.....	214
2)	Dynamic relationship between perceived risk and information search	216
3)	Representation of propositions on the model.....	222
6.6	Conclusion of discussion	224
CHAPTER 7: CONCLUSIONS		232
7.1	Main conclusions	232
7.2	Contribution	233
1)	Contribution to theory.....	234
2)	Contribution to Marketing Practice	236
7.3	Limitations and directions for future research	238
REFERENCES		241
Appendix 1: Coding tree of initial stages of information search.....		257
Appendix 2: Coding tree of advanced stages of information search.....		261
Appendix 3.1: Participant information and consent form (page 1)		266
Appendix 3.2: Participant information and consent form (page 2)		267

LIST OF FIGURES

Figure 1. Process of Scientific Inquiry	25
Figure 2. Traditional Purchase Decision-making Process Model by Engel, Blackwell & Miniard, 1995 (p.134).....	29
Figure 3. Perceived Risk Framework. Adapted from Conchar, Zinkhan & Olavarrieta (2004)	58
Figure 4. A priori Model of Perceived Risk during Information Search in Digital Purchase Contexts derived from Literature	61
Figure 5. Process of Scientific Inquiry at Literature Review	62
Figure 6. Process of Scientific Inquiry at Research Design	81
Figure 7. Dynamic Relationship between Information Search and Perceived Risk from Stage 1 to Stage 2	110
Figure 8. Dynamic Relationship between Information Search and Perceived Risk from Stage 2 to Stage 3	134
Figure 9. Dynamic Relationship between Information Search and Perceived Risk from Stage 3 to Stage 4	157
Figure 10. Dynamic Relationship between Information Search and Perceived Risk from Stage 4 to Stage 5	179
Figure 11. Propositions towards a New Model of Perceived Risk in the Digital Context	223
Figure 12. Process Model of Perceived Risk during Information Search in Digital Purchase Contexts	227
Figure 13. Process of Scientific Inquiry Complete	240

LIST OF TABLES

Table 1. Theories of the Purchase Decision-making Process from Traditional Environments to the Digital Age	42
Table 2. Summary of the Methods Employed for the Empirical Study	72
Table 3. Summary of Codes Identified at Preparation for Information Search Stage....	86
Table 4. Summary of Stage 1 - Narratives	95
Table 5. From Stage 1 to Stage 2.....	105
Table 6. Summary of Emerging Concepts at Initial Information Search Stage	107
Table 7. Summary of Stage 2 – Narratives.....	116
Table 8. From Stage 2 to Stage 3.....	125
Table 9. Summary of Emerging Codes Identified at Advanced Information Search Stage	126
Table 10. Summary of Stage 3 –Narratives.....	139
Table 11. Codes Identified at Preparation for Purchase Decision Stage	149
Table 12. Summary of Emerging Codes Identified at Preparation for Purchase Decision Stage	151
Table 13. Summary of Stage 4 – Narratives.....	163
Table 14. From Stage 1 to Stage 5.....	169
Table 15. Summary of Emerging Codes Identified at Purchase Decision-making and Post-purchase Behavior Stage	172
Table 16. Summary of Stage 5 – Narratives.....	184
Table 17. Summary of the Concepts, Relationships and Meanings and its Evolution through the 5 Stages of Perceived Risk Processing during Information Search	187
Table 18. Summary of propositions	219
Table 19. Summary of perceived risk variables of the digital era.....	225

CHAPTER 1: OVERVIEW OF THE PROGRAM OF RESEARCH

1.1 Research Background

The understanding of the manner in which consumers take purchase decisions is of increasing interest for marketing theory and practice because it offers insights on how consumers are best influenced (Blackwell, Miniard, & Engel, 2001; Edelman, 2010) in their purchase decision-making. Moreover, Edelman (2010) asserts that a clear comprehension on how consumers take purchase decisions with a focus on the stages of the decision-making process offers more accurate insights on resource allocation over other strategies based on the understanding on how to allocate resources across media (i.e. television, radio, online and so forth).

The digitalization of the marketing environment encouraged by the constant advances in the Information and Communication Technologies (ICT) is changing consumers' behavior in the way they take purchase decisions (Darley, Blankson, & Luethge, 2010; Edelman, 2010; Grant, Clarke, & Kyriazis, 2013; Lemon & Verhoef, 2016). In fact, it has been pointed out that the rise of the Internet has changed consumers' behavior during the search stage of the purchase decision-making process (Darley et al., 2010).

The digitalization of the marketing environment refers to the changes in the marketing arena due to the increasing development of technologies. Leeflang, Verhoef, Dahlström, & Freundt (2014) point out that the changes that are related to this process of digitalization not only in the marketing domain but in the society in general are triggered by: the Internet becoming one of the most important marketplaces for transactions of goods and services (i.e. the dominance of Amazon as an online retailer) (Leeflang et al., 2014); the role of digital media in information management (i.e. Google as a source of information); digital music sales surpassing the sales of traditional music formats in the US; the emergence of customer to customer (C2C) markets and social media (i.e. YouTube, Facebook and Twitter) transforming the conversations among customers; the increasing number of internet users and the increasing firms' investment in social media, among others.

Moreover, literature points out that due to the digitalization of the marketing environment there is also a change in the paradigm of how consumers interact with firms in purchase situations. These are shifts in the locus of power and value creation from the firm to the consumer and also a shift in the locus of activity from the desktop to the web (Berthon, Pitt, Plangger, & Shapiro, 2012). This change in paradigm has motivated scholars to rethink central marketing practices and the current self-conception of marketing (Homburg, Jozi, & Kuehnl, 2017) as well as marketers to adopt new strategies to respond to these market challenges. Therefore, new literature is emerging in order to theorize how consumers take purchase decisions in the current digital era.

1.2 Research Justification

Being aware of what is occurring in the marketing context, we identify in the literature that the observed phenomenon is not fully explained. In fact, we observe that the phenomenon of the digitalization of the marketing environment and the manner in which consumers are taking purchase decisions defies extant knowledge on the field.

Moreover, reviewing the related literature we see conflicts on the expected relationship between perceived risk, of one of the determinants of information search, and the information that consumers collect during the purchasing process of “experience-type” products. These “experience-type” products are subject to personal taste interpretation and full information on important features of the product cannot be known without actual personal experience (Grant, Clarke, & Kyriazis, 2007; Korgaonkar, Silverblatt, & Girard, 2006). Thus, by moving between the gap originated in the phenomenon-theory contrast and the gap identified in the literature, we recognize the need for new theories.

Furthermore, looking at marketing practice, we identify that marketers have difficulties in specifying how and when, in the search stage of the purchasing process, consumers perceive risk. In fact, it is not clear how this will ultimately affect consumers’ search and purchase behavior. Therefore, how firms can mitigate consumers’ risk perception is not well understood. This is particularly relevant as businesses debate how best to allocate billions of advertising dollars between the Internet and other conventional communication media (Ratchford, Lee, & Talukdar, 2003). Implementing online strategies is significantly

lower in costs than implementing offline strategies (Evans, 2009). For example, Verity, Hof, Baig, & Carey (1994) have suggested that it may be nearly one fourth less costly to perform direct marketing through the Internet than through conventional channels (Hoffman & Novak, 1996). For that reason, there are economic incentives for marketers to move online but the understanding of where marketers can act to create consumers' value remains unclear (Grant et al., 2007).

Therefore, we see research gaps in current literature in:

- That current theories are insufficient to fully explain the new observed phenomenon of perceived risk during information search in digital environments;
- The lack of theories in digital marketing that clarify how perceived risk affects consumers' behavior in purchasing contexts;
- The limited comprehension of the phenomenon that requires a deep understanding of human behavior and interactions in a dynamic and fast changing context.

Therefore, we see a research opportunity that motivates this research work.

Moreover, due to the relevance that the full understanding of the phenomenon for theory and practice has, we aim at contributing to the theorizing process of perceived risk in the digital era with this research. As Shepherd (2017) points out, when there are conflicts originated from tensions between the observed phenomenon, current theories and also from an orientation toward practice, a trigger for theorizing arises.

1.3 Objectives

The main objective of this research is to gain understanding on how the digitalization of the marketing environment is changing how consumers perceive risk and their subsequent search behavior during the purchase decision-making process of experience-type products. Ultimately, our objective is to contribute with new knowledge to the theorizing process of perceived risk in the digital context.

Therefore, the overarching research question states as follows.

In the purchase decision-making process:

How does the digitalization of the marketing environment affect consumers' perceived risks during the information search stage?

Specifically, this work answers the following specific research questions.

Regarding the dynamics in risk perception during purchasing processes:

RQ1: *Why are there contradictory findings in the literature on the expected relationship between perceived risk and information search in digital contexts?*

RQ2: *Does time affect or have a role in the manner in which perceived risk unfolds during information search?*

RQ3: *What is the interplay between perceived risk and information search in digital purchase contexts over time?*

Regarding how and why perceived risk changes in the digital age:

RQ4: *How can the changes in the process of perceived risk processing and information search be explained as part of the digitalization of the marketing environment?*

RQ5: *What are the emerging concepts, relationships and meanings that are found to have a role on perceived risk during information search in digital contexts?*

RQ6: *How does perceived risk and its relationship with information search change due to consumers' use of digital information sources during their purchasing processes?*

Additionally, by providing answers to the research questions this study offers marketers with a better understanding of how consumers perceive risk during the entire information search process and with a detailed approach. Thus, the findings of this research offer insights about how to add value to consumers' search processes by decreasing risk. Ultimately, we aim at informing marketers on how to improve consumers' effort, satisfaction and engagement in purchase situations.

1.4 Originality

The originality of this research study lies in that it includes the investigation of the full purchasing process to uncover the development of the different stages where consumers search for information and deal with risk. More specifically, a phenomenological research is used in order to construct an animated evocative description of the phenomenon. Thus, by adopting an interpretivist, longitudinal and finer-grained approach this study contributes to gain new and meaningful insights to understand the *whats, hows, when* and *whys* of perceived risk during information search. These insights are beneficial to the theorizing process of the phenomenon. In fact, by capturing the entire process of information search we offer deeper understanding of the changes that occur in consumers' risk perception across time and thus we uncover why there are inconsistencies among risk literature given the current digital environment. Thus, by providing answers to the research questions, this work copes with the gaps in current theories offering new knowledge to the risk literature that has relevant practical implications.

In terms of methodology, the originality of this research consists in approaching the phenomenon with an interpretive and longitudinal empirical study. By adopting an interpretive methodology, consistent with our theoretical framework, the understanding of the phenomenon can be enriched from the quantitative approach that dominates current literature about risk and information search. The interpretive approach of this research considers the effect of time, social interaction and context. Therefore, the findings of this

research are able to elicit a deeper understanding of consumers' underlying reasons that are not observable in surface responses and in isolation from the context.

Finally, this research responds to the overarching research question by providing answers to six specific research questions. Moreover, based on these answers this study makes propositions to the current model of perceived risk processing contributing with new knowledge on perceived risk literature as follows:

- 1) Risk is perceived by consumers as a process; thus, time has a role on how perceived risk unfolds. This is explained by the dynamic relationship between perceived risk and information over the time in which the information search process develops in purchasing contexts.
- 2) The changes in the process of perceived risk processing and information search are explained by new roles of trust, social risk, key reference points and user generated content as well as by the new types of perceived risk and mechanism of risk reduction that emerge during the information search stage. These changes are part of the digitalization of the marketing environment.
- 3) The new concepts, relationships and meanings in the process of perceived risk and information search that emerge as part of the digitalization of the marketing environment, shape consumers' risk perception and subsequent search and purchase behavior.
- 4) This research finds a new dynamic relationship between perceived risk and information search that occurs during the process of information search and that is not considered in current models and theory of perceived risk in purchasing contexts as these theories consider perceived risk as a static construct.

1.5 Overview of chapters

This dissertation is developed in nine chapters that aim at revealing the accomplishment of stages that assures the level of research quality expected within a PhD dissertation process. Moreover, these nine chapters guide the reader in order to understand first the background of the research, the phenomenon that motivates this study and what has been said about it to then specify the research problem, how to best approach it and what is the new knowledge that emerges from the study and its contribution to theory and practice. At the end of this chapter, figure 1 illustrates the process in which this dissertation has been developed. This offers a guide to understand in a summarized way the sequence and interactions of the different stages of this research. The chapters are organized as follows:

1) Chapter 1: Overview of the Program of Research

It provides details on the program of research. It introduces the field of studies where this dissertation is framed, the research background, the observed phenomenon and the context of the research. It also offers the statement the research justification, the objectives, research questions and originality.

2) Chapter 2: Literature Review

Chapter two introduces the related literature concerning the phenomenon of study, its context and antecedents. It approaches different theoretical perspectives and how theories and empirical studies have evolved through time and what is its current state of the literature. Finally, this chapter discusses and states the positioning of the research regarding the theoretical perspectives in which the work is framed and an “a-priori” model of perceived risk during information search in digital purchase contexts is provided.

3) Chapter 3: Research Gap

Chapter three highlights the tensions identified between the observed phenomenon and the current theories and the conflicts between theories. It makes the statement of the research gap and the research questions.

4) Chapter 4: Research Design

Chapter four is devoted to reflecting upon the ontological, epistemological and methodological assumptions that set the nature of research and the researcher's role in the process of scientific inquiry to understand and explain the observed phenomenon. Moreover, chapter 4 describes the methodology adopted for the study, the methods used for data collection and the strategy followed in order to manage the data.

5) Chapter 5: Findings

Findings are presented in this chapter. First, the strategy followed in order to analyze all collected data is explained. Second, the stages that are disclosed in this study are presented. Third, each stage is described and the codes or constructs that are identified in each stage are classified, described and supported with its corresponding empirical evidence. Fourth, the changes and relationships that occur between the codes throughout the time of the development of stages are compared and documented. Finally, each stage is illustrated with narratives of consumers' experiences.

6) Chapter 6: Discussion

This analysis chapter discusses the results of the empirical study. This chapter elevates the abstraction level of the results' analysis by contrasting findings with current literature and theories in an iterative manner. The results are contextualized in the phenomenon and context. Then, from the analysis of results considering the existing literature and the theoretical framework, the chapter provides the preamble of the contribution of the research study.

7) Chapter 7: Contribution

This chapter states and discusses the contribution to theory and practice. First, the theoretical contribution is approached from the perspective of the contribution to the

literature and then from the perspectives of methodology. Finally, the contribution and its relevance to practitioners are articulated.

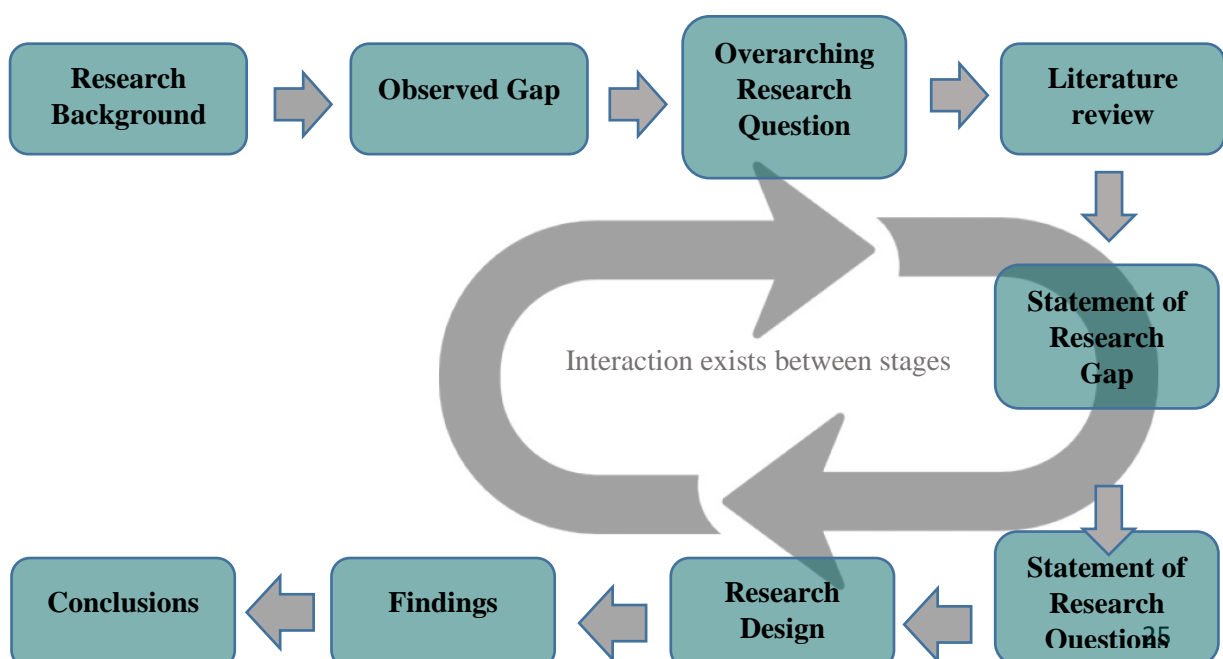
8) Chapter 8: Limitations and Directions for Future Research

Chapter 8 offers an analysis of the limitations of the research work also, as this research opens the door for new research inquiries, this chapter describes the identification of new opportunities for future studies. It also provides new avenues of research directed toward the testing and refinement of propositions that can contribute to the present study for the purpose of theorizing perceived risk and the purchasing process in digital contexts.

9) Chapter 9: Conclusion

The last chapter of this dissertation retrieves the motivation of this research study and highlights the value of providing new knowledge to the field of study. This chapter summarizes the steps in the process of scientific inquiry adopted in this research and emphasizes the contribution of the dissertation. Moreover, this chapter specifies the main findings of the study. Finally, it invites to reflect upon the future of the research domain and practice given the phenomenon studied and the lessons learned in the present study. Figure 1 illustrates the sequence of this research that shows the iteration between the research gap, literature review and initial findings following the inductive and abductive reasoning of this qualitative research (Lipscomb, 2012).

Figure 1. Process of Scientific Inquiry



CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

Chapter one introduced the area of knowledge of the research undertaken in this study, the background of the research problem and the context where it is framed.

This chapter explores on the state of the art of a range of literature within the disciplines of perceived risk, information search, and consumers' purchase decision-making process and the emerging literature on the customer journey.

The chapter is organized as follows: Section 2.2 revise the theories that explain the purchase decision-making process following a time-evolution perspective. The revision includes the analysis of the traditional theories and what has been said about the effect of the digitalization of the marketing environment on that process. Then, we conduct an analysis of the emerging literature that considers the traditional theories and contextualizes the purchase decision-making process in the current digital context. Therefore, this section recognizes the emergence of the concept of *customer journey* (Edelman, 2010; Lemon & Verhoef, 2016) as a consequence of the influence of the digitalization of the marketing environment on the purchase decision-making process and how consumers take purchase decisions.

Section 2.3 explores the information search stage of the purchase decision-making process. Specifically, the psychological theories of search and the economic theories of search are discussed. Moreover, this section reviews the variables involved in information search and how the products' characteristics and attributes have an effect on how consumers search for the information about those attributes.

Finally, section 2.4 focuses on the literature of perceived risk, it's multiple dimensions and its relationship with information search behavior. Moreover, this section deepens in studying the underlying principles of prospect theory and constructive consumer choice processes theory that sustain perceived risk construct from the perspective of the manner in which consumers process information and risk.

2.2 Purchase Decision-making Process

In an increasing competitive world for businesses, marketing literature and practitioners are interested in understanding the influence that marketing actions can have on consumers during their purchasing processes that ultimately shape their consumption behavior (Engel, Blackwell, & Miniard, 1995). For this reason, the understanding of the process that leads consumers to take a purchase decision becomes crucial. In fact, the understanding of consumer behavior during the different stages of the purchase decision-making process, has been used by firms to take marketing decisions. For instance, budget allocation across communication channels such as investment in online and offline advertising, sales promotion and direct marketing (Schultz, Cole, & Bailey, 2004) at the different touch points of the purchase decision-making process.

Edelman (2010) and Anderl, Hendrik, & Kunz (2016) asserts that people get impressions from their direct and indirect experiences at touch points, those moments where consumers have contact with the product or with product's representations during the purchase decision-making process. Moreover, during this process those accumulated impressions then become crucial because consumers shape the initial consideration set (Edelman, 2010). For that reason, the literature on consumers' decision-making process has been widely studied and currently there is agreement in the literature on the need to pay attention to new phenomena that affect this process given the digitalization of the marketing environment. Thus, we begin by reviewing the traditional theories and then we advance in understanding what is happening with the purchase decision-making process now that consumers include digital information to take purchase decisions.

1) Traditional theories of the purchase decision-making process

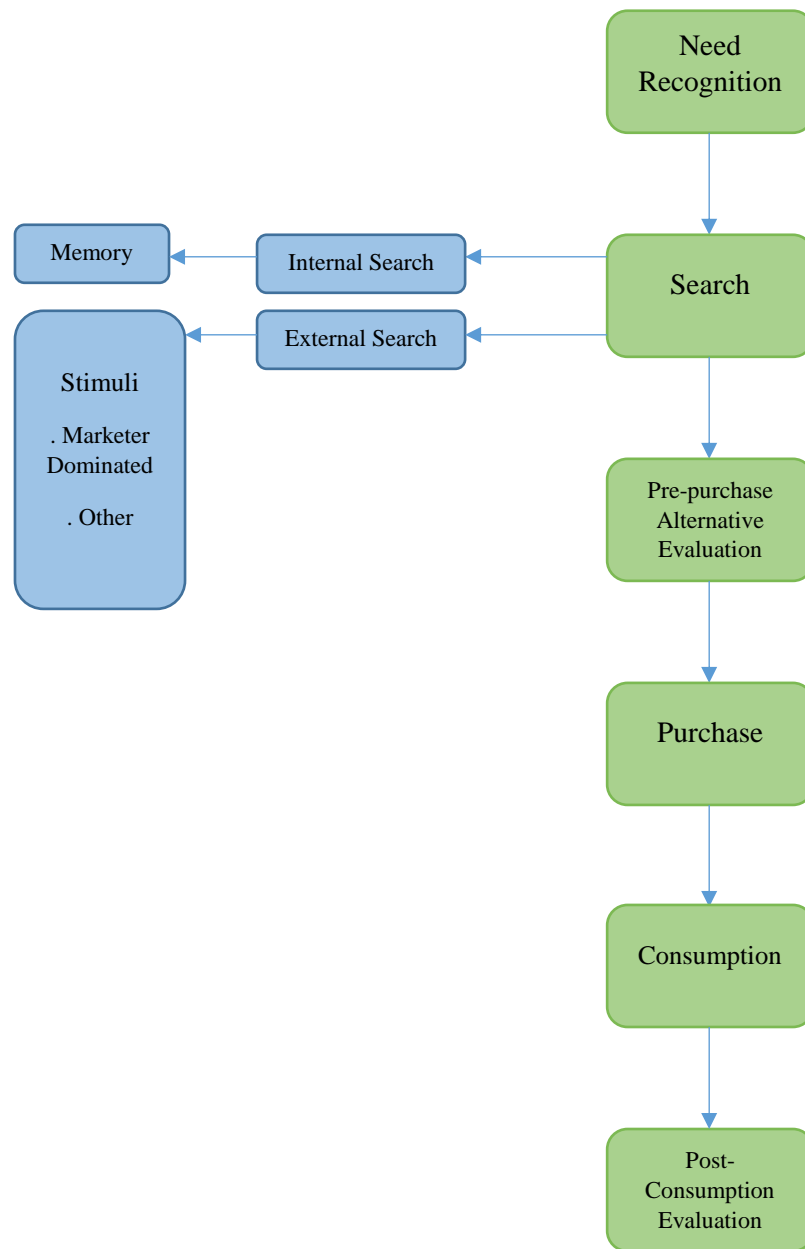
Initial theories in marketing began in the 1960s focusing on discussions of customer decision processes and experience when buying products (Lemon & Verhoef, 2016).

In the last three decades there has been an increasing interest to formulate models to explain the purchasing process. Engel, Blackwell, & Miniard (1986) in the first model they proposed identified the purchase decision-making process as a linear and sequential route where according to Edelman (2010) consumers move down from one stage to the other narrowing down the options in the consideration set. Engel's et al., (1986) model has been used to explain purchasing processes thus far.

The model consists of six stages; need recognition, information search, pre-purchase alternative evaluation, purchase, consumption and post-consumption evaluation. Engel's et al. (1995) later publication illustrates a more complete model in 1995. Figure 2 illustrates Engel's et al. (1995) model where each phase is followed by the next one in a linear manner. We now learn more about each stage:

- “*Need recognition*” is the first phase of the process and is defined as the state where the consumer is bound to fill the gap between an actual state and a desired state when his or her threshold of problem awareness is reached (Butler & Peppard, 1998).
- The second stage is “*information search*” where the consumer takes actions to gain knowledge. The sourcing of information is in the heart of this phase. According to Engel et al. (1986) and Engel et al., (1995) consumers search for information from internal resources such as memory or from external sources such as the marketing communications.
- The next stage is “*pre-purchase alternative evaluation*”. This step is related to the analysis and evaluation of alternative solutions. Here the consumer has sought and found the relevant information, and must now use it to make the purchase decision (Butler & Peppard, 1998). In addition, this stage includes the influence of sources of information for the evaluation process, for instance; past experience, marketing sponsored communications, consumer groups and research institutions and Word of Mouth (Butler & Peppard, 1998; Engel et al., 1995).

Figure 2. Traditional Purchase Decision-making Process Model by Engel, Blackwell & Miniard, 1995 (p.134)



- The model's fourth stage is "*purchase decision*", where consumers take decisions on where and how to buy. Also, during this stage is when consumers' motivations to buy occurs. In terms of marketing implications of consumer behavior the ordering payment and delivery are the key strategic issues to consider in this stage (Butler & Peppard, 1998). Once the consumer has made a purchase, how they use the product or what changes or modifications consumers make constitutes the consumption phase (Engel et

al., 1995) which is closely related to the last stage of post-consumption evaluation.

- Finally, the last period of this process is called “*post-consumption evaluation*” which is relevant given that it explains how consumers take delivery of the products, the degree of satisfaction, quality of the service dimensions, customer complaints and suggestions.

Traditional theories of the purchase decision-making process consider that consumers start their purchase decision-making process with a large set of brands in mind during the need recognition phase. Moreover, marketers assume that the number of potential brands are reduced as consumers search for information and evaluate each alternative (Edelman, 2010; Engel et al., 1995).

Subsequently, as these theories assert, when the adequacy or quality of consumer’s existing knowledge is enough during information search consumers rely solely on internal search. However, if the internal search is inadequate, consumers engage in external information search about the product or service (Engel et al., 1995). This framework also considers the impact of environmental influences such as culture, social class, personal influences, family and situation on the search stage. Moreover, the model considers the effect of individual differences, such as consumer resources, motivation and involvement, knowledge, attitudes and personality, values and lifestyles (Engel et al., 1995).

Once consumers have the number of brands to consider, that is called the consideration set, the evaluation of each alternative in terms of price, brand name, country of origin, etc. happens. This occurs in order to reduce the number of alternatives as consumers determine the alternatives from which choices are made. Under this perspective those brands that are not included in consumers’ consideration set don’t have any chance to be purchased by the consumer (Engel et al., 1995).

Therefore, as consumers move from the problem recognition phase to the purchase phase, sets of brands are reduced to subsets using for instance, cutoffs, a restriction or requirement for acceptable attribute values (Engel et al., 1995), until consumers reach their final choice.

Thus, the understanding of what drives consumers to advance in the process and make a purchase decision has been relevant for academics and marketers. Moreover, although the

identification of the phases of consumer decision process postulated by Engel et al. (1986) and Engel et al. (1995) is used in the literature thus far, the digitalization of the marketing environment and the influence of the Internet in the purchase decision-making process is motivating researchers in the marketing field to consider the traditional theories on purchase decision-making. Therefore, new literature is emerging to study and understand the purchase decision-making process when digital information sources are adopted.

For instance, Edelman (2010) and Grant et al. (2007) point out that due to the differences in terms of information utility between online and offline media the purchase decision-making process is changing in the search and pre-purchase alternative evaluation stages. Unlike traditional models, research shows that in the current digital era rather than systematically narrowing their choices, consumers add and subtracts brands from a group under consideration during an extended evaluation stage (Edelman, 2010). These differences are relevant in consumer information search behavior, because search and pre-purchase alternative evaluation precedes all purchasing and choice behavior (Peterson & Merino, 2003), and these stages include touchpoints where marketing actions can influence consumers' decisions through information (Edelman, 2010; Wilkie & Dickson, 1985).

In the following section we review what has been said about these reported changes that are taking place in the marketing field due to the advances in the Information and Communication Technologies (ICT). We start by understanding how technology has been developing, how it has been influencing the marketing environment and how it is affecting consumers' behavior.

Moreover, we analyze the emerging literature that is considering the traditional theories of the purchase decision-making process due to the development in technology. Specifically, due to the digitalization of the marketing environment.

2) Digitalization of the marketing environment

As it was first introduced the digitalization of the marketing environment is influencing how consumers take purchase decisions (Darley et al., 2010; Edelman, 2010; Grant et al., 2007). In fact, top journals in the field have adjusted their focus as a response to the

changing environment due to technological advances and its potential effects in current theories. Ratchford (2015) in a study about the research directions in Interactive Marketing points out that the Journal of Direct Marketing that was launched in 1987, changed its focus and became the Journal of Interactive Marketing ten years later with the aim of understanding the changes in the marketing environment. These changes include the Internet becoming a major source of information about products and services; a channel for advertising, replacing to a great extent, newspapers; the influence of Google and social media in connecting consumers and firms in multiple directions and the minimization of costs due to a reduction in visiting stores. All of these enhanced with the penetration of mobile devices. Thus, the Internet and electronic technology have moved to the core of the marketing function (Ratchford, 2015), so too the focus of the academic literature.

To understand how the integration of digital technologies into the marketing field has been occurring, this section explores the literature that studies how the advances in technology and the emergence of the Internet took place and how this is evolving. Moreover, it explores what are the noted major implications of these advances for the marketing field.

a) Internet background

In a generic and conceptual sense the Internet is referred to as a type of global information infrastructure consisting of computer hardware and software that is characterized as both general and open (Peterson, Balasubramanian, & Bronnenberg, 1997 p.331). Moreover, it represents an efficient medium for accessing, organizing and communicating information. Thus, it subsumes communication technologies.

Moving from an amalgamation of many networks to a more organized web for commercial purposes, the Internet gave rise to the emergence of the World Wide Web (WWW) (Peterson et al., 1997), web 1.0 or simply "*the web*" (Berthon, Pitt, & Watson, 1996). WWW is the internet service that organizes information using hypermedia (the medium of information that include graphics, audio, video, text and hyperlinks). According to Haubl & Trifts (2000) the popularity and growing of interactive media in the marketing field is manifested in two ways: First, a drastic increase in the number of companies that seek to use the world wide web (WWW) to

communicate with customers or potential customers. Second, the rapid adoption of the WWW by broad consumer segments for a variety of purposes.

According to Peterson et al. (1997) as a marketing channel the Internet has unique characteristics and features that share with traditional channels. These channels are classified as:

- distribution channels that facilitates the physical exchange of products and services;
- transactions channels that generate sales activities between sellers and buyers;
- and, communication channels that enable the exchange of information between sellers and buyers and prospective buyers.

These channels although conceptually different, overlap among them (Peterson et al., 1997).

The marketing literature studying the Internet in times of web 1.0 broadly studied the phenomenon but mainly focusing on its benefits. For instance, as a communication channel, Peterson & Merino (2003) state that the main alleged benefits of the Internet is the quantity and quality of individually customized information that it provides with minimal effort and cost.

Moreover, Haubl & Trifts (2000) assert that the WWW as a transaction and communication channel allows vendors to create retail interfaces with highly interactive features, for instance *interactive decision aids*, which are sophisticated tools that assist shoppers in their purchase decisions. These interactive features include the exchange of information, availability of information on demand, response contingency, customization of content, and real time feedback (Haubl & Trifts, 2000).

From an information content utility perspective, Grant, Clarke, & Kyriazis (2007) point out that a key characteristic of websites is their ability to carry massive amounts of information with search utility derived from internal hyperlinks as well as search functions within the site offering breadth and depth of information relating to their product that is simply not feasible in traditional information offerings such as brochures and promotional material (Grant et al., 2007). Another feature of digital information is the flexibility that vendors have to update their offering in real time ensuring accuracy of information that is not available in traditional media information sources (Grant et al., 2007). Finally, in this specific information format utility

perspective, Grant et al. (2007) state that the ability of online vendors to offer consumers varied information format options such as print, audio, graphic and audio-visual material for consumers has the greatest potential for delivering customer value as it allows consumers choice of their preferred information format.

Ultimately, since the last decade as Biswas & Biswas (2004); Peterson et al. (1997) and Q. Chen, Griffith, & Shen, (2010) assert, the Internet as a marketing channel was characterized by:

- The ability to inexpensively store vast amounts of information at different virtual locations
- The availability of powerful and inexpensive means of searching, organizing, and disseminating such information
- Interactivity and the ability to provide information on demand
- The ability to provide perceptual experiences that are far superior to a printed catalog, although not as rich as personal inspection
- The ability to serve as a transaction medium
- The ability to serve as a physical distribution medium for certain goods (i.e. software)
- Relatively low entry and establishment costs for sellers

As explained above, until the last decade the web allowed consumers to enter and visit sellers' online stores, enjoy the sights and sounds, engaging in interactive information search by clicking in online brochures and even visually examine products and services' pictures. However, although these characteristics of openness, informality and interactivity that are pointed out by Berthon et al. (1996) as a combination of community and a marketplace, the web was limited to confer a passive role to consumers.

However, in the 21st century a new wave of technology changed the marketplace again. Web 2.0 emerged and new communication technologies were adopted all claiming to involve, connect with and engage consumers (Doig, 2015). Web 2.0 is pointed out as the technical infrastructure that enables the social phenomenon of collective media and facilitates consumer-generated content. The content are the

words, text, pictures and videos, and the media are the vehicles for carrying this content (i.e. Facebook, Twitter, Youtube) (Berthon et al., 2012). Berthon et al. (2012) defined Web 2.0 as the “*series of technological innovations in terms of both hardware and software that facilitate inexpensive content creation, interaction, and interoperability, and that put the lay user rather than the firm center stage in terms of design, collaboration, and community on the World Wide Web*” (p.262).

Moreover, one of the most influential consequences of the development of Web 2.0 for the marketing environment is Social Media. Social media is defined as a group of internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content (UGC), the media content that are publicly available and created by end-users (Kaplan & Haenlein, 2010). Although the literature in social media recognizes problems in its categorization due to the extensive number of social media applications and the fact that new sites appear in cyberspace every day (Kaplan & Haenlein, 2010), an effort has been made to classify social media types by social presence and media richness that rely on social presence theory and media richness theory.

Kaplan & Haenlein (2010) building on Short, Williams, & Bruce’s (1976) social presence theory, assert that social media differ in the degree of acoustic, visual and physical contact that can be achieved between two communication partners. That is social presence degree, which is influenced by the intimacy (interpersonal vs mediated) and immediacy (asynchronous vs synchronous) of the medium (Kaplan & Haenlein, 2010). Thus, social presence is higher in interpersonal and synchronous communications and lower for mediated and asynchronous communications. Kaplan & Haenlein (2010) assert that the higher the social presence, the more influential the communication is in individuals’ behavior. On the other hand, media richness concept is based on Daft & Lengel’s (1986) theory that assumes that the goal of any communication is the resolution of ambiguity and the reduction of uncertainty (Kaplan & Haenlein, 2010). Consequently, the media can be more or less rich in terms of the information they transmit and its effectiveness in solving ambiguity and uncertainty.

According to the classification in terms of social presence and media richness, blogs and collaborative projects such as Wikipedia are classified as low, social networking

sites such as Facebook and content communities as YouTube as medium and Virtual social and game worlds are classified as high (Kaplan & Haenlein, 2010).

Ultimately, the development of web 2.0 has increased consumers interaction through social media that can be one-to-one, one-to-many, many-to-one, and many-to-many in online environments. Moreover, mobile technology is developing causing an increase in its connectivity (Stephen, 2016). Mobile technologies include the use of mobile devices with the size of tabs such as cell phones, iPhones, Blackberries, smartphones and cards (Pescher, Reichhart, & Spann, 2014; Vodanovich, Sundaram, & Myers, 2010). Pescher, Reichhart, & Spann (2014) remark that mobile devices enhance consumers' ability to quickly, easily and electronically exchange information about products and to receive mobile advertisements. Mobile technology allows consumers speaking and speed texting (Vodanovich et al., 2010) and it is found to have the potential to reach most consumers due to their high penetration rate (Pescher et al., 2014). Therefore, social media applications run on multiple mobile and computing platforms and consumers are able to connect to each other anywhere and anytime, participating in a ubiquitous network (Berthon et al., 1996; Pescher et al., 2014; Stephen, 2016; Vodanovich et al., 2010) and increasing e-commerce opportunities.

Finally, with the development of web 2.0 and the rapid evolution of technology the Internet has changed the marketplace affecting consumers' everyday life. Thus, this digitalization of the marketing environment is affecting the distribution, transaction and communication marketing channels, changing the traditional marketing paradigm that ultimately is affecting the consumers' purchase decision-making process.

The next section reports on the effects of the digitalization of the marketing environment on consumers' behavior during the purchase-decision making process.

b) The influence of the digitalization of the marketing environment on consumers' purchase decision-making processes

As we described in the previous section, the Internet has rapidly evolved, and new technology is emerging. This digitalization of the marketing environment is changing

consumer behavior and new literature is considering the traditional theories that explain the purchase decision-making process.

An emergent stream of literature, points out that the Internet has influenced consumer's behavior in the way they take purchase decisions (Anderl et al., 2016; Edelman, 2010; Grant et al., 2007; Haubl & Trifts, 2000; Peterson & Merino, 2003). It is stated that given that peer to peer communication channels via web forums and social networking sites have become fully integrated into consumers' lives (Anderl et al., 2016; Fortini-Campbell, 2001; G. Lee, 2010), the Internet facilitates consumers' participation. Thus, there is an explosion of e-commerce and an increasing number of consumers who use interactive media for pre-purchase information search and online shopping that seems to have changed the way they take shopping decisions during their purchasing processes.

The influence of the Internet on consumer behavior has been studied from two different perspectives: Technology-centered perspective, and the dual technology-human perspective.

Technology-centered perspective assumes that as technology changes, the way consumers seek information and make purchases is likely to change as well (Darley et al., 2010). Grant et al. (2007) state that the literature that has technology as a focal research point uses the *Technology Adoption Model*, where researchers examine consumers' attitudes towards technology use as a basis for understanding online purchasing; and from the *Clickstream Modelling*, which uses analysis of previous behavior to predict online purchase. For instance, studies that are focused on web site quality or satisfaction.

However, many authors call for a return to the consumers' information needs focus to better understand consumers' decision making and purchasing with digital channels as sources of information (Darley et al., 2010; Grant et al., 2007; Ratchford et al., 2003).

It has been pointed out that the emphasis on technology alone doesn't consider the complexity of consumers' search behavior. For instance, Grant et al. (2007) indicate that the clickstream approach has focused predominantly on single website analysis for search type products and hasn't addressed the complexity associated with multiple information sources use for other types of products or services. Moreover, it has been

mentioned in the literature that the focus on human information needs contribute to a better understanding of choice decisions and of the underpinnings of online consumer behavior and the decision-making process (Darley et al., 2010). The reason is that this focus takes into account the complexity of consumer behavior in terms of the influence of their psychological, socio-cultural and environmental factors on consumers search decisions. Indeed, Grant et al. (2007) assert that this focus on human information needs becomes especially important in terms of consumers' information needs during the search stage of consumers' purchasing processes.

Finally, it is suggested that elements such as the influence of involvement, product type (i.e. search vs experience attributes), knowledge acquisition, information processing and belief systems should be taken into consideration as they influence consumer behavior (Grant et al., 2007).

Thus, taking into account the dual perspective, Berthon et al. (2012) point out that compared with web 1.0, web 2.0 technologies have caused three effects; a shift in of locus of activity from the desktop to the web, a shift in of locus of value proposition from the firm to the consumer and a shift in of locus of power away from the firm to the consumer. These changes are framed in the interplay between web 2.0, what Berthon et al. (2012) term "creative consumers" and social media.

The literature agrees that consumers use web 2.0 to both create and consume information (Berthon et al., 2012; Edelman, 2010). Consumers create value in the form of text, pictures, videos and networks in an inexpensive way on the web (Berthon et al., 2012). Thus, web 2.0 allows consumers to co-create value with firms. Moreover Web 2.0 facilitates the switch from one to many monologues into many to many dialogues leveraging the power of relationships and the collective wisdom of many (Berthon et al., 2012). Moreover, millions of consumers get connected with low cost and effort between them and with companies, which in turn motivates participation and value creation. Thus, in theory online media support the democratization of knowledge and information (Berthon et al., 2012).

Moreover, the literature points out that online media facilitate the exchange of information through Word of Mouth (WOM) that allows consumers to obtain information from the experience and product's evaluation of others (Edelman, 2010; Stephen, 2016). Word of Mouth (WOM) is defined as the opinion and preference-

based social interaction where a consumer learns from and is affected by other consumer's opinion and experiences (Chen, Wang, & Xie, 2011).

In general WOM refers to the dissemination of information (e.g. opinions and recommendations) through communication among people (Chen et al., 2011). In the marketing literature the two most studied aspects of WOM are its valence and its volume. Valence refers to whether the opinions from WOM are positive or negative and volume to the amount of information provided in the WOM communications (Chatterjee, 2001; Chen et al., 2011).

WOM that occurs through online media is called eWOM and unlike traditional WOM the communication occurs from one to one, many-to-many, one to many and many to one and the non-commercial focus may not be certain (Chatterjee, 2001). Finally, eWOM is far more voluminous in quantity compared to information obtained from traditional offline information sources (Chatterjee, 2001; Chen et al., 2011).

Chen, Wang, & Xie (2011) assert that consumers tend to be influenced by their social interaction with others when they make purchase decisions by learning from other consumers' opinions through WOM and from others' actual purchase decisions or experiences through observational learning. Moreover, Hu, Liu, & Zhang (2008) and Stephen (2016) affirm that online reviews written by previous customers provide information about a product's perceived value that helps new customers make purchase decisions by offering them indirect experiences that reduce the uncertainties involved in inferring product quality. And J. Chen, Teng, Yu, & Yu (2016) find that eWOM positively affects purchase intentions.

Moreover, Daugherty, Li, & Biocca, (2005) and Q. Chen, Griffith, & Shen (2010) find that consumers evaluating experience-type products learn better from direct experiences than when they evaluate them through indirect experiences. The study shows that when evaluating experience-type products, consumers' perceived knowledge and brand attitudes were more favorable for direct experience with the product than for indirect experiences such as advertising and printed brochures. However, there is evidence in the literature that consumers' perceived knowledge, brand attitude and purchase intentions enhanced (from traditional experiences) when consumers learned from a specific virtual experiences of 3D applications online in the

case of products' experience attributes (Daugherty et al., 2005; Daugherty, Li, & Biocca, 2008).

In this new environment, consumers are able to search and obtain product's attributes information not only in physical stores but on the web as well. Blogs, tutorials, images, and word of mouth about products are examples of the information that is exchanged by consumers on the web. Indeed, they can evaluate alternatives using social media and interactive decision aids such as software tools that range from general-purpose search engines to sophisticated agent-mediated electronic commerce systems (Haubl & Trifts, 2000). Ultimately, the digitalization of the marketing environment is pointed out as causing a blurring of online and offline boundaries during the purchase decision-making process.

Given the influence of the digitalization of the marketing environment and its influence on consumers' behavior during their purchasing processes, emerging literature is considering the traditional theories of the purchase decision-making process.

In the next section we analyze these emerging literatures to understand better what has been said about the theory of the purchase decision-making process in digital environments.

3) Emerging theories on the purchase-decision making process in the digital environment.

Many authors have called for the attention to the changes in the purchase decision-making process research considering the influence of the digitalization of the marketing environment on it. Building on Darley's et al. (2010) study, that asserts that research on consumer behavior identifies convergence and divergence of digital and traditional and the decision making process, we deepen our understanding on what has been found in the literature about the purchase decision-making process in digital contexts.

The work of Edelman (2010) and Anderl et al., (2016) provides insights on the way consumers' purchase decision-making process takes place in digital contexts. Under this

perspective Edelman's (2010) and Følstad & Kvale (2018) works point out that the process becomes more dynamic and cyclic rather than linear consisting of *touch points* or moments where consumers are open to influence. In fact, we see the term "customer journey" more commonly used in the academic literature to refer to the journey that consumers take in order to make a purchase decision. This emphasizes more customers' experiences at touchpoints where they construct their own path than to a process where consumers pass determined stages.

Grant et al., (2007) suggest that with the use of digital information sources, consumers undergo an extended and dynamic evaluation phase. Specifically, it emphasizes that in the case of experience-type attributes such as wine tasting and shoes' comfort (Grant et al., 2007; Ratchford et al., 2003), when digital information does not meet their needs, an iterative process occurs involving switching between online and offline information sources (Grant et al., 2007).

Darley, Blankson & Luethge's (2010) work reevaluates the purchase decision-making process and asserts that the use of digital information influences the purchase decision-making process along all its stages. Moreover, Peterson & Merino (2003) and Anderl et al. (2016) suggest that given the relatively low cost of information search in digital channels and its entertainment value, consumers that include digital information sources to search and evaluate products will increase the amount of information acquired during information search stage and may decrease consumers' effort during it. In fact, the study proposes to consider digital information sources as the primary source of information over traditional channels during information search in digital contexts. Thus, the consideration set varies in terms of size and homogeneity in digital contexts.

In these propositions that consider the explosion of product choices and digital channels, the purchase decision-making process starts with the problem recognition phase but after consumers recognize needs there is a cyclical process of information search and alternatives evaluation in which the consumer includes and subtracts brands in the consideration set. Finally, after this cycle there is the purchase and the post purchase stage in a more linear way.

Given this scenario, consumers experience touch points using digital and traditional information sources and do not restrict themselves to digital sources only. As we explained above, it is suggested that in digital contexts there is a blurring of online and

offline boundaries. Finally, it has been pointed out by some authors that digital information seems to take more control than before. However, broad generalizations on the impact of the digitalization of the marketing environment on information search behavior are not warranted (Peterson & Merino, 2003).

In table 1, we put together the main theories that explain the purchase decision-making process. It shows the theories of the purchase decision-making process in traditional purchase environments; then, how contributions documented the digitalization of the marketing environment phenomenon and how it influences the purchase decision-making process; and finally, it summarizes the emerging theories and models on the customer journey in the digital age.

Table 1. Theories of the Purchase Decision-making Process from Traditional Environments to the Digital Age

Topic area	Article	Main contribution
Purchase decision-making process	Engel, Blackwell, & Miniard (1986)	Propose a model that consists of six stages; need recognition, information search, pre-purchase alternative evaluation, purchase, consumption and post-consumption evaluation
Purchase decision-making process	Engel's et al. (1995)	Contextualizes Engel, Blackwell, & Miniard (1986) model. Restates the six sequential stages of the purchase decision-making process.
Customers' Information Search Behavior	Peterson & Merino (2003)	Offers 14 propositions to stimulate and guide investigations of consumer information search behavior in the context of the Internet. The study suggests that because of the complexities of the Internet and information search behavior (individually and even more so when considered conjunctively), investigations of consumer information search behavior in the context of the Internet should especially focus on moderators of that behavior and interactions among the various antecedents of the behavior.
Information search	Ratchford, Lee & Talukdar (2003)	Provides a better understanding of search behavior in highly involvement products such as cars when the Internet is used for information search.

Signaling theory. Perceived risk in purchase contexts	Biswas & Biswas (2004)	Examines three signals: retailer reputation, perceived advertising expenses, and warranties—on consumer risk perceptions in online vs offline purchase context
Consumer Search Behavior	Grant, Clarke & Kyriazis (2007)	Argue that with the Internet growth research is needed in terms of the understanding of consumers' value from information sources in the evaluation of "experience type" products.
Purchase decision-making process	Darley, Blankson & Luethge (2010)	This paper presents a comprehensive review of empirical studies dealing with online consumer behavior and decision-making processes. The paper adapts and extends Engel, Kollat, and Blackwell's (1978) and Engel, Blackwell, and Miniard's (1986) decision-making model as backdrop in the review of the literature.
Customer Journey	Edelman (2010)	Informs of the evidence found in literature on the dynamic and interactive nature of the customer journey. States that this approach explains better consumer purchase behavior in the Internet era.
Customer Experience in the Customer Journey	Lemon & Verhoef (2016)	Present an integrated view of customer experience across the customer journey in the past 50 years that contributes to understand the roots of customer experience for stronger understanding and avenues for further research.
Customer Journey	Anderl, Hendrik, & Kunz (2016)	Propose a taxonomy-based approach for customer journeys in the multichannel digital context by classifying customers according to contact origin and brand usage.
Customer Journey	Følstad & Kvale (2018)	Analyze and discuss customer journey terminology as are two emerging customer journey approaches: customer journey mapping (analysis of a service process "as is") and customer journey proposition (generative activities leading towards a possible service "to be").

2.3 Theoretical Approaches to Information Search

The literature on consumer information search is vast and has been of research interest for decades (Peterson & Merino, 2003) due to the determinant role that information search has in decision making and choice (Anderl et al., 2016; Chandrasekaran, Srinivasan, & Sihi, 2017).

As we stated before, Engel et al. (1995) research offers a complete view on consumer behavior explaining the whole process of consumers' purchase decision-making. According to this study, the next step following need recognition is internal search into memory. It is pointed out that when information stored in memory is not enough to make a choice, external information search will be required. Peterson & Merino (2003) state that in fact, internal and external information search are related as external information search depends and is affected by memory.

Peterson & Merino (2003) claim that consumers spend different amounts of time and effort in their information searches, and that the time and effort spent are a function of personal characteristics (i.e. resources, risk aversion, preferences), the nature of the product or service that is the object of search, the reason for the search and the nature of the sources used and so forth.

Moreover, according to Engel et al. (1995) consumers engage in external search to collect additional information from the environment, for instance from the marketing communications.

External search is influenced by consumers' motivations of search. In this sense, the literature classifies external search as pre-purchase, goal directed or problem solving activities on the one hand, and as ongoing search that is continuous, regular and general activities on the other hand (Engel et al., 1995; Peterson & Merino, 2003).

Regarding the purchase decision-making process and the influence marketing actions can have on consumers' behavior during this process, we focus our attention on external goal-directed search.

External pre-purchase information search is defined as "the degree of attention, perception and effort directed toward obtaining environmental data or information related to a specific purchase under consideration" (Beatty & Smith, 1987). Besides external pre-

purchase information search has been found to be affected by many factors (Moorthy, Ratchford, & Talukdar, 1997; Schmidt & Spreng, 1996) that are based on the two theoretical perspectives: The economic theory of search and the psychological theories.

1) Economic theories of search

The economic theory of search focuses on how consumers weight the costs and benefits of search when making search decisions. Building on Stigler (1961) that states that information is a valuable resource, the basic premise in economic search theories is that consumers will search for information until the marginal benefits from search reach or equal the marginal costs. According to Schmidt & Spreng (1996) the economic theory of search contemplates the influence of the perceived benefits of search on the one hand, and the perceived cost of search on the other hand.

Schmidt & Spreng (1996) define benefits of search as outcomes that increase one's utility or provide value by facilitating achievement of higher-level goals or values. In other words, consumers' benefits of search are the results of search such as those stated by Schmidt & Spreng (1996): getting the product with the lowest price, getting the product with the best quality, increased satisfaction with the decision and improved satisfaction with the product, that increase consumers' utility as a result of obtaining higher level goals from these results.

In contrast with perceived benefits of search, perceived costs of search are the consumers' subjective assessment of costs in terms of time, money and effort that the consumer expends searching for information. Schmidt & Spreng (1996) provide a definition built on Bettman (1979) that states that perceived costs of search are consumers' subjective assessment of the monetary expenditure (i.e. gas), time sacrifice (i.e. ability to do something else, delayed use of the product), physical effort (i.e. going to stores, buying information materials, observing the product), and psychological sacrifice (i.e. psychological costs of processing information, frustration) that the consumer expends when searching for information".

Lastly, on the relationship between cost of search and benefits of search with the amount of search, Ratchford et al. (2003) found in a study on automobiles purchase, that when

using the Internet, total search (i.e. effort, time) increases with gains to search and decreases with costs of search.

2) Psychological theories of search

The psychological theories of search are related to the ability and motivation to search for information from an information processing perspective that includes memory and cognitive information processing limitations of humans (Schmidt & Spreng, 1996). Moorthy et al. (1997) state that the variables intervening in processes of information search from the psychological perspectives include beliefs, attitudes, involvement and knowledge.

However, much of the literature agrees that the economic and psychological theories of search are rather complementary than exclusive. Moorthy et al. (1997) point out that the economic theories provide to the understanding of search behavior with rigor and a general “macro-level” perspective and the psychological theories offer the interpretation of the theory in a more micro and empirical terms that allow the study of the interaction among the constructs involved in information search.

Moreover, Moorthy et al. (1997) assert that by including both perspectives the behavioral theory can be given an economic interpretation, and the economic theory can be enriched by relating it to empirical findings in the psychological literature of search. Thus, according to the literature, in this way the understanding of the reasons behind search behavior can be explained in a more complete and reasonable manner.

Finally, these models that embrace both perspectives have been widely studied in offline environments and include the effect of many variables which we explain below.

3) Variables involved in information search

Extant research in information search recognizes that there is a variety of variables both from the economic perspective and from the psychological perspective affecting consumers' information search behavior.

Schmidt & Spreng (1996) offer a complete model to understand how information search operates in traditional contexts. This model proposes that perceived benefits of search increases information search whereas perceived cost of search decreases information search. Moreover, perceived ability to search is proposed to increase information search. In this proposition different variables affect perceived ability to search, perceived benefits of search and perceived costs of search. These variables are the following:

Education level: It has been found in many studies as determinant of information search. Schmidt & Spreng (1996) point out that presumably higher levels of education increase consumers' ability to identify, locate, and assimilate relevant information. Thus, it is expected that higher levels of education leads to higher perceived benefits of search.

Objective knowledge: Is conceptualized in the literature as what the consumers actually knows about a product domain (Schmidt & Spreng, 1996). Higher objective knowledge has been found to allow individuals to process information easier and thus, improve the ability to search for information. It is expected that higher objective knowledge increases perceived benefits of search (Schmidt & Spreng, 1996).

Subjective knowledge: On the other hand, subjective knowledge or perceived knowledge is defined as consumers' perception of the amount she or he knows about the product. It has been pointed out that subjective knowledge includes knowledge and confidence in the adequacy of knowledge (Brucks, 1985; Schmidt & Spreng, 1996). Moreover, it is expected to increase information search through the increase of perceived benefits of search (Schmidt & Spreng, 1996).

Satisfaction with previous purchases: In Schmidt & Spreng's (1996) model consumer satisfaction is proposed to decrease external information search as the study shows extensive literature demonstrating that consumers satisfied with previous products searched less in their next purchase decision.

Perceived financial sacrifice: One benefit of searching is to get the lowest price for a given level of quality. Moreover, it has been found that consumers engage in more search activity when the cost of a product is higher than they do when the price is low (Schmidt & Spreng, 1996). However, Schmidt & Spreng's (1996) model asserts that perceived financial sacrifice is a more appropriate variable than product price because the critical factor deals with the relative price given the consumer's financial constraints. Thus, it is expected that perceived financial sacrifice is positively related with the benefits of external search.

Perceived risk: The model points out that perceived risk consists of many components or dimensions (i.e. performance, financial, social). We will expand the literature about perceived risk, object of this research, in the next section. Schmidt & Spreng (1996) assert that it is expected that perceived risk increases information search because one way of reducing risk is to obtain more information.

Situational involvement: It is defined as the linkage between a product or situation and the outcome or consequences of the situation (Schmidt & Spreng, 1996). The model points out that situational involvement enhances attention and information processing because of the belief that this effort will produce favorable outcomes. Thus, it is proposed to be positively related with benefits of external information search.

Information required for choice rule: The model points out that extant research shows that individuals use a variety of choice rules in making product choices. Moreover, Schmidt & Spreng (1996) propose that the decision strategy selected influences the perceived benefits of collecting information.

Perceived product differences: This model assumes that when there is greater dispersion among brands, there will be greater benefits of searching. Thus, Schmidt & Spreng (1996) point out that the greater the perceived differences among products in a product category, the greater the perceived benefits of search.

Need to justify decision: This variable refers to the requirements that happens in some purchasing processes of justify a purchase decision to others (i.e. spouses, friends) and also to themselves (Schmidt & Spreng, 1996). The model proposes that the need to justify one's decision increases the benefits of external information search activity given that consumers seek to avoid post purchase dissonance.

Desire for optimum decision: Consumers seek to make an optimal decision rather than satisfying and making an acceptable decision, thus Schmidt & Spreng (1996) suggest that the desire to make an optimal decision positively affects information search by increasing the benefits of search.

Size of evoked set: As we stated above, the consideration set or evoked set is the group of brands considered in a specific purchasing process. Schmidt & Spreng's, (1996) model assert that the evoked set size is expected to positively influence the perceived benefits of search because there is potentially more useful information available when there are more brands in the considerations set. Moreover it is expected that more information will be needed in larger evoked sets to take a purchase decision (Schmidt & Spreng, 1996).

Product complexity: Product complexity refers to the extent that a product has more attributes and to the difficulty that a consumer has to determine which attributes are the more important in a specific product. Thus, the greater the product's complexity the more it will cost to gain a particular level of understanding through searching and processing information (Schmidt & Spreng, 1996). Therefore the model proposes that higher product complexity leads higher cost of search (Schmidt & Spreng, 1996) and thus the consumer is expected to decrease search activity as product complexity increases.

Information accessibility: Refers to the extent to which information is available and accessible to the consumer in a format that the consumer can use (Bettman, 1979). The literature asserts that the more accessible the information in the environment is, the lower the cost of search and process information will be. Moreover, extant research shows how different formats of presenting the information affects search effort. For instance, online formats that allow consumers to easily access information reduces the cost of search (Chandrasekaran et al., 2017). Therefore, as the model proposes, when consumers can easily access information, their use of this information will increase because the cost of searching for the information is reduced (Schmidt & Spreng, 1996).

Time pressure: Is referred to as the consumer's perception of the availability of time. Search literature asserts that information search increases with greater time availability and more constraints on consumers' time leads to less information search (Beatty & Smith, 1987; Schmidt & Spreng, 1996; Wilkie & Dickson, 1985).

Information search theory has a long story of research and as just explained, many variables have been found to determine information search in traditional context. Schmidt

& Spreng's (1996) model includes many of the variables that have been found in search literature as determinant of consumer's search during the purchase decision-making process but although the model is inclusive, the elements that determine and influence information search are not limited to the variables presented in this section. Moreover, although research about information search in traditional offline environment is extensive, research about how information search is determined in a purchase decision-making process that includes the use of digital information sources is emerging. In the following section we examine the emerging literature related to information search in digital contexts.

4) Product categorization

As we mentioned before, information search has been of research interest for decades due to its determinant role in decision making and choice (Beatty & Smith, 1987; Chandrasekaran et al., 2017; Moorthy et al., 1997; Peterson & Merino, 2003; Schmidt & Spreng, 1996; Srinivasan & Ratchford, 1991). Moreover, we have informed that in traditional settings many variables have a role in determining external information search. However, given the digitalization of the marketing environment new literature is emerging. This section explores this literature.

Peterson and Merino (2003) claim that consumers spend different amounts of time and effort in their information searches. The time and effort spent are a function of the nature of the product or service that is the object of search, personal characteristics (i.e. resources, risk aversion, preferences), reasons for the search and the nature of the sources used and so forth (Engel et al., 1995; Peterson & Merino, 2003).

Grant et al. (2007) and Korgaonkar et al. (2006) suggest that differences in product characteristics and the way these characteristics are communicated (i.e. information format) affect search behavior. Indeed, these studies suggest that there may be differences in the communication effects online and offline by product characteristics due to the differences in information formats provided by each channel.

In this research, as the nature of the product or service being searched is proposed to be a factor which influences digital information search, we distinguish three types of products; search, experience and credence products.

Extant research shows that information types (i.e., objective vs. subjective) impact information search behavior (Grant et al., 2007; Korgaonkar et al., 2006; Ratchford et al., 2003). Objective information are facts that are not influenced much by personal feelings, taste or opinions and are referred to as *search-type information* (i.e., price, product specifications (Grant et al., 2007; Ratchford et al., 2003)). Subjective information are facts that are influenced by personal feelings, taste or opinions, also referred to as *experience-type information/attributes*, they can be verified only by use of the product, because they are a matter of subjective experience.

Previous research has observed that consumers prefer digital sources for objective information as it is easy and comparable online, whereas they prefer traditional sources for subjective information as offline sources provide experiencing opportunities for them to try, evaluate and decide (Grant et al., 2007). However, we observe that consumers are using digital sources to search and evaluate experience-type products. Nevertheless, consumers prefer traditional sources for subjective information due to the possibility that higher perceived risk can be attached to digital information sources (Grant et al., 2007). In the following section we extend the review of the literature about products' classification and perceived risk.

a) Search, experience and credence paradigm

Given the differences between objective and subjective information regarding their effect in search behavior, this section explores the literature about products' classification from this perspective.

Seminal literature on products' classification categorizes products in three groups: search, experience and credence products (Darby & Karni, 1973; Klein, 1998; Nelson, 1974; Stigler, 1961). The search, experience and credence paradigm appears in the literature of many areas such as marketing, psychology, and sales, among others.

Moreover this categorization appears relevant in digital shopping literature as products may influence online shopping (Korgaonkar et al., 2006). This classification is based on how products differ in the way the relevant information about them is conveyed to customers, for instance during information search. Alba et al., (1997) and Huang, Lurie, & Mitra, (2009) note that all products involve a bundle of search and experience attributes. Though many studies on digital information search and decision-making define search goods or products as those for which the attributes most important to assessing product quality are search attributes and experience goods or products as those for which attributes most important associated with product quality are experience attributes (i.e. Grant et al., 2007; Huang et al., 2009; Korgaonkar, Silverblatt, & Girard, 2006; Wright & Lynch, 1995).

Search attributes are the product's characteristics that can be evaluated by consumers before purchase or use as their qualities can be determined by the consumer without any physical inspection (Huang et al., 2009; Korgaonkar et al., 2006; Wright & Lynch, 1995). Examples of search attributes are the color of a chair, the number of calories of foods or price (Huang et al., 2009; Wright & Lynch, 1995). Accordingly, so called "*search-type products*" such as CD's and books (Grant et al., 2007; Korgaonkar et al., 2006) are those with significant features and characteristics of this type. Lots of information of these products can be easily obtained by consumers and it can be gained from second hand sources such as advertising and word of mouth (Wright & Lynch, 1995).

In contrast with search attributes, experience attributes are difficult to observe in advance, but these characteristics can be ascertained upon consumption (Korgaonkar et al., 2006). Experience products' attributes can be verified by only the use of the product because they are a matter of subjective experience, are characterized by uncertainty and are difficult to evaluate (i.e. user friendliness of a computer, the exact taste and crunchiness of a candy bar, shoes comfort) (Huang et al., 2009; Wright & Lynch, 1995). Accordingly, "*experience-type products*" are subject to personal taste interpretation and full information on important features of the product cannot be known without actual personal experience (Grant et al., 2007; Korgaonkar et al., 2006). Examples of experience-type products are apparel, fashion, wine, restaurant and travel experiences (Grant et al., 2007; Korgaonkar et al., 2006).

Finally, credence attributes are those that cannot be evaluated in normal use but instead the assessment of their value requires additional costly information (Darby & Karni, 1973). An examples of credence attributes is the efficiency of a car repair as it takes time to assess it. Therefore, credence-type products are difficult to evaluate before and even after consumption of the product. Potential consumers of these goods may require third-party information (i.e. vitamin and water purifier) (Korgaonkar et al., 2006).

2.4 Perceived Risk in Consumer Behavior Theory

Perceived risk has been found in several studies to be determinant in certain purchase activities (Aldás-Manzano, Lassala-Navarré, Ruiz-Mafé, & Sanz-Blas, 2009; Forsythe & Shi, 2003; Hong, 2015). Moreover, it has been found to impact consumer behavior during information search and pre-purchase alternative evaluation (Biswas & Biswas, 2004; Campbell & Goodstein, 2001; Chaudhuri, 2000; Cunningham, Gerlach, Harper, & Young, 2005; Forsythe & Shi, 2003; Hong, 2015; Stone & Grønhaug, 1993).

Perceived risk was first introduced by Bauer (1960) in his seminal work that recognizes that all consumer behavior involves risk and thus, consumer choice and decision-making is determined by consumers' risk aversion or risk propensity. Perceived Risk has been defined in many ways (Chaudhuri, 2000; Conchar et al., 2004; Grant et al., 2007; Mitchell, 1999).

Chaudhuri (2000) defines it as the potential for loss in a product class which is due to an overall evaluation of the consumers' prior knowledge of the rational and emotional consequences of using a product. More recently, Grant et al. (2007) defined perceived risk as a consumers' natural predisposition to avoiding losses (e.g., financial, performance, social) through purchase activity.

Risk has multiple dimensions (C. Chiu, Wang, Fang, & Huang, 2014; Forsythe & Shi, 2003; Hong, 2015; Liao, Lin, & Liu, 2010; Mandel, 2003; V. Mitchell, 1999; Murphy & Enis, 1986; Schmidt & Spreng, 1996; Stone & Grønhaug, 1993) also known in the

literature as perceived risk types. The following section expands the literature about perceived risk types in order to deepen our understanding of the multidimensional construct of perceived risk.

1) Perceived risk types

As we introduced above, extant research shows that perceived risk has multiple dimensions (Forsythe & Shi, 2003; Hong, 2015; Liao et al., 2010; Mandel, 2003; V. Mitchell, 1999; Murphy & Enis, 1986; Schmidt & Spreng, 1996; Stone & Grønhaug, 1993). These dimensions have been found different among them and vary their effects on consumer behavior depending on the specific purchase situation.

Risk literature classifies risk in the following dimensions: Performance risk is the uncertainty whether the product will perform as desired (Forsythe & Shi, 2003; Murphy & Enis, 1986; Schmidt & Spreng, 1996; Yang, Liu, Li, & Yu, 2015), financial risk which is defined as the risk that the product will not be worth the financial price (Forsythe & Shi, 2003; Mandel, 2003; Murphy & Enis, 1986; Yang et al., 2015), physical risk that is the risk to the buyers' or others' safety in using products (Murphy & Enis, 1986), time risk that is the risk of time wastage (L. S.-L. Chen, 2010), psychological risk that is the bruise of the self-image or self-concept (L. S.-L. Chen, 2010) and social risk that is one in which consumers believe their peers may evaluate them negatively due to a purchase they make (Eisingerich & Bell, 2015; Mandel, 2003; Murphy & Enis, 1986; Schmidt & Spreng, 1996). Moreover, social risk intensifies the potential for embarrassment or disapproval in the case of a negative social outcome (H. Lee, Park, & Kim, 2013; Mandel, 2003).

2) Perceived risk and information search

Perceived risk has been found to be determinant in information search behavior in traditional offline settings (DeVecchio & Smith, 2005; Murphy & Enis, 1986; Schmidt & Spreng, 1996). Furthermore, as found in Balladares, Miralles, & Kennett (2017) there is perception of risk from searching for information in online sources.

Moreover, prior literature shows that risk increases information search because one way of reducing risk is to obtain more information that enables them to act with confidence in situations of uncertainty (Bauer, 1960; Chaudhuri, 2000; Schmidt & Spreng, 1996).

Srinivasan & Ratchford (1991) find that perceived risk has a positive relationship with the size of the evoked set because the higher the perception of risk in a purchase situation, the higher the perceived benefit of consumers in obtaining more information, thus they consider a greater number of alternatives. Likewise, Dowling & Staeling (1994) and Cheung, Lee, & Chan, (2015) show that consumers obtain information from various shopping activities that appear to be positively influenced by their perceived benefits of search to reduce perceived risk.

More recently, Piller, Schubert, Koch, & Möslein, (2005) assert that consumer to consumer interactions in online communities reduces perceived risk by enabling consumers to search for more information and gain peer recognition in the community. Thus, as Grant et al. (2007) assert, consumers are able to use digital media tools as a mechanism of risk reduction.

In addition, Forsythe & Shi (2003) find that perceived performance risk doesn't increase with information search as concerns regarding product performance may be less of a deterrent to purchase in digital environments.

Moreover, Hong (2015) finds that perceived financial risk doesn't increase in a significant way during information search due to the maturity of transactional structures of e-commerce that facilitate consumers' trust in merchants.

On the other hand, another stream of risk literature finds different results on the expected relations of perceived risk and information search in digital contexts. For instance, Mandel (2003) and Cheung, Lee, & Chan, (2015) asserts that risk aversion is a social norm and Mandel (2003) finds that products that are highly visible and are consumed publicly carry more social risk than do those that are consumed in private. Moreover, the study claims that when having more observers during the purchasing process embarrassment and approval is likely to increase. Thus, the heightened awareness of significant others seems to act as a floodlight increasing social risk, presumably because one's own embarrassment increases, rather than decreases, when it is shared with others (H. Lee et al., 2013; Mandel, 2003).

Biswas & Biswas (2004) and Im, Kim, & Han (2008) show that further engaging in digital information search increases perceived risk because consumers in an online setting will have very few cues to rely upon during the shopping experience. Moreover, Chen (2010) finds higher perception of time and psychological risk in digital settings. Additionally, Hirunyawipada, Tanawat Paswan, (2006) find that financial risk perception deters consumers to search for novel information. Also, Forsythe & Shi (2003) find that consumers perceive financial risk as they search for information that deters them from advancing in the purchase decision-making process. In fact, they find that consumers perceive more financial risk at search than when actually shopping in digital environments.

Finally, Hong (2015) suggests that perceived performance risk increases during information search in digital environments due to consumers' inability to physically examine products before purchasing them. Thus, the study claims that performance risk perception demands more trust to engage in an online transaction

3) Perceived risk framing, assessment and evaluation

As we mentioned before, in digital contexts search behavior is not well understood from product's attributes perspectives. Namely, we observe a seamless and dynamic integration of digital and traditional sources for information search of experience-type products, despite traditional sources are preferred for searching about this type of products. Perceived risk is found to be a key factor that affects consumer behavior during the search stage of the purchase decision-making process (Forsythe & Shi, 2003; Hong, 2015; Schmidt & Spreng, 1996) and this is changing in the fast-moving digital environment (Grant et al., 2007; Hong, 2015; Mandel, 2003). However, in this context the understanding of the relationship between perceived risk and information search is not clear. Thus, adopting a consumer-based thought we advance the depth of the understanding of the literature on the construct of perceived risk with a finer grained perspective.

Conchar, Zinkhan, Peters, & Olavarrieta (2004) propose a framework that evaluates risk in human decision processes and the consequences of risk in actual choices. Figure 3 shows this framework. As the previous section explains, during information search

individuals face risk. Moreover, the literature asserts that individuals face risk when their actions produces social and economic consequences that cannot be estimated with certainty (Zinkhan & Karande, 1991; Conchar et al., 2004). Thus, when consumers make choices perceived risk occurs in three phases: risk framing, risk assessment and risk evaluation (Conchar et al., 2004). This framework considers the influence of the context and individual characteristics.

Risk framing occurs through assigning weights for each of the perceived risk dimension that reflects the importance of each one when consumers engage in information search. Moreover, during risk framing, the consumer establishes the scenario for managing further perceived risk. In this stage, consumers sort and filter informational cues to select those that they consider will help them to reduce perceived risk. During framing consumers engage in preliminary analysis of the choice alternatives that often results in a simplified choice consideration set. Therefore, risk framing encompasses considerations of the importance of avoiding losses, evocation of references against which risk may be assessed and editing of the choice alternatives. The outcome of risk framing is thus, risk attention to the important risk-related information regarding consumer's choice alternatives that he or she can manage (Conchar et al., 2004).

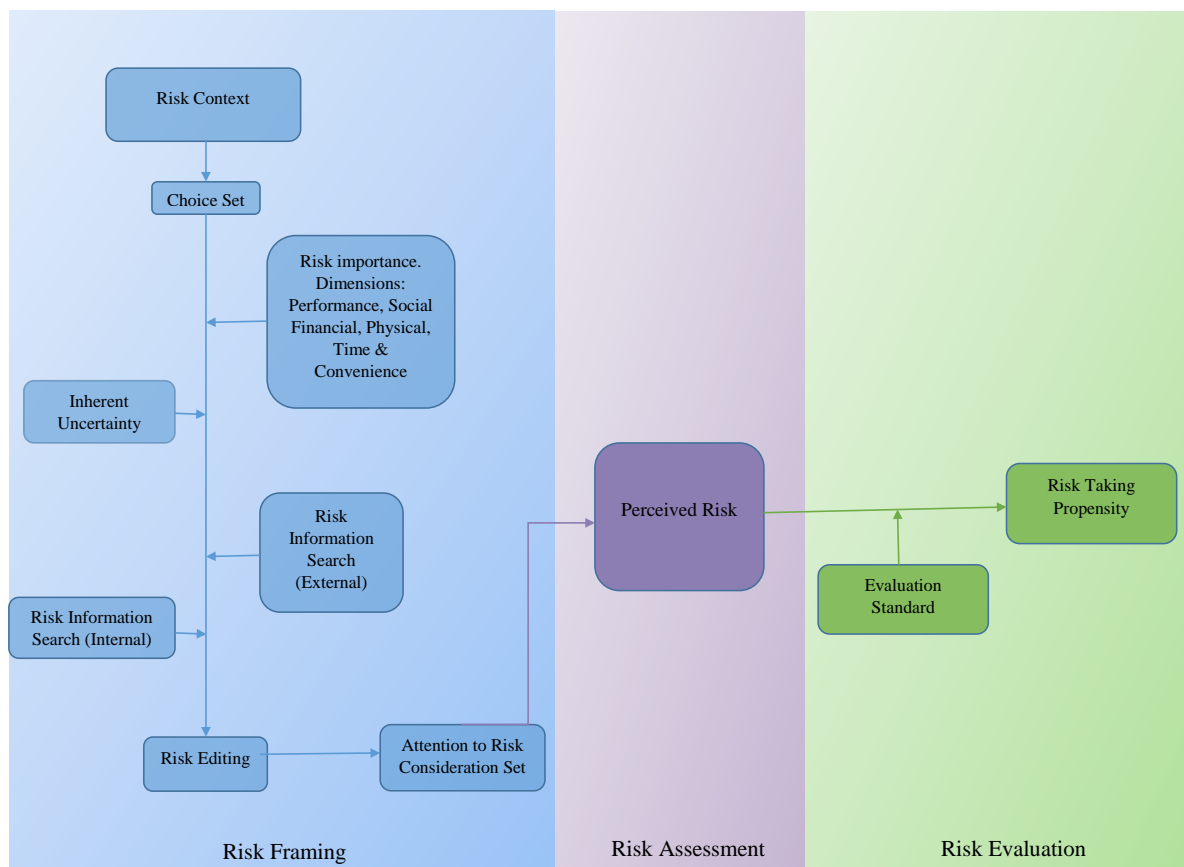
Once risk attention is set, the risk assessment phase occurs where situational and individual factors influence the perception of risk. Therefore, this influence causes that perceived risk is understood as subjective, multidimensional and contextual in nature (Conchar et al., 2004; Tuu, Olsen, & Linh, 2011). Conchar's et al., (2004) framework points out that risk assessment occurs when consumers consolidate their perception of search output, importance and inherent risk to formulate a subjective expected value for risk in each choice over a combination of risk dimensions (Conchar et al., 2004 p.431). Accordingly, Yang et al., (2015) assert that risk has effects on perceived value. Thus, in this phase perceived risk is the combined result of context-dependent importance weights, inherent risk in a specific situation and the influence of individuals factors (Conchar et al., 2004).

Finally, risk evaluation phase occurs as consumers manage the consequences of perceived risk through a process of mental accounting, meaning that they consider whether perceived risk established before is worth the potential loss of assets relative to a referent individual standard (Thaler, 1991; Conchar et al., 2004). For instance, financial, psychological, physical, performance, social, time and linked-decision investment.

Therefore, risk evaluation determines consumer’s willingness to take risk that is based on the relationship between potential losses and the initial asset level. Finally, the framework suggests that risk evaluation will occur relative to a referent standard that varies with the individual and the situation.

Figure 3. Illustrates the perceived risk framework and the sub-constructs of risk framing, risk assessment and risk evaluation.

Figure 3. Perceived Risk Framework. Adapted from Conchar, Zinkhan & Olavarrieta (2004)



As it can be seen in figure 3 perceived risk occurs as a sequence of stages during choice processes where risk is an important consideration and choice is complex. Moreover, the process described in Conchar’s et al. (2004) framework might be repeated, at times subconsciously by consumers until a final choice is made. Also, consumers might exit the loop prematurely and go through multiple cycles of earlier-order processing.

Ultimately, perceived risk occurs in three phases and it is influenced by the context, the individual’s risk profile that includes traits such as risk affinity, ambiguity intolerance, sensation seeking and cultural factors. The first phase is risk framing and occurs by

assigning weights that reflect the importance to the individual of avoiding risk, searching internal and external sources of information about the risk related to the specific choice alternatives and editing of the choice alternative (Conchar et al., 2004 p.422). The outcome of this stage is a choice consideration set. The second stage is risk assessment which is the assimilation of search information, importance weights, and the effects of individual's risk profile that set the probabilities of the expected outcomes on the range of risk dimensions for each possible choice to formulate perceived risk (Conchar et al., 2004).

Finally, the third stage of risk evaluation is the subjective test of perceived risk against one or more evaluation standard(s) to evaluate whether perceived risk is worth the potential loss of assets (Conchar et al., 2004). The outcome of this phase then is risk taking propensity, which is the consumer's willingness to make a risky choice when faced with a specific decision situation (Conchar et al., 2004).

Finally, this framework is an integral explanation of the determinants of consumer's behavior during a choice when risk is an important consideration. In these situations, it's pointed out that consumers are more likely to follow constructive approaches (Bettman et al., 1998) such as this one. This framework is closely interconnected with the overall consumer decision-making process which is considered by the purchase decision-making process and risk literature as a process where consumers may apply heuristic strategies for decision making. For instance, advancing in the purchase decision-making process with an acceptable rather than optimal level of risk. Moreover, perceived risk occurs in a process where it changes, and it is shaped by the context and the individual consumer.

So far, we have explored the literature related to perceived risk and the search stage of the purchase decision-making process. Moreover, we see that the phenomenon of the digitalization of the marketing environment is occurring and changing the manner in which consumers take purchase decisions.

This research focuses the discussion on the studies that have advanced in providing understanding of perceived risk during consumers' decision-making processes from a process-driven perspective (Conchar et al., 2004), that frames perceived risk as a multidimensional construct, bring the argument about perceived risk around the

completion of stages in which consumers perceive risk as they are influenced by elements of their specific context.

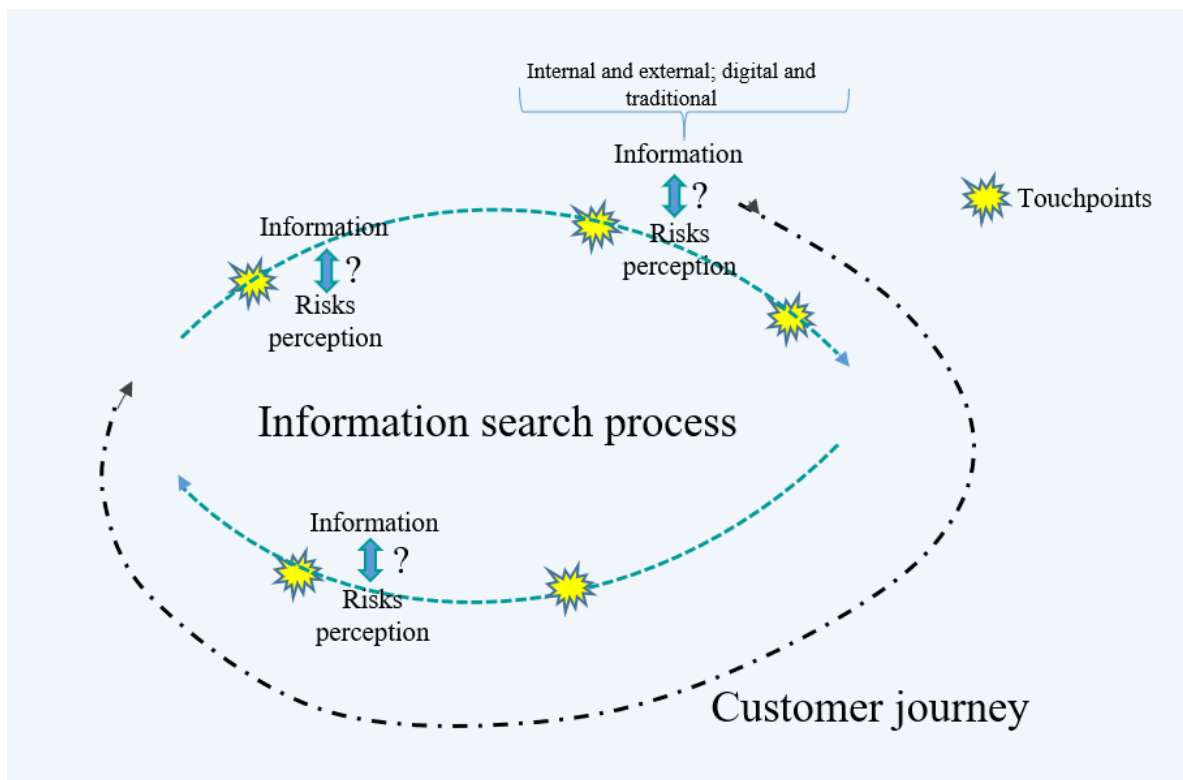
Moreover, the present study centers the debate on emerging customer purchase journey literature that considers the use of digital information channels by consumers and the dynamic nature of this process (see table 1). In this sense, academic literature (i.e. Lemon & Verhoef, 2016) and managerial oriented literature (i.e. Edelman, 2010) bring the consideration of touch points and a dynamic approach of the customer purchase journey stages. Moreover, these studies call for the need to investigate how these journeys are shaped and what elements have a role in how consumers take purchase decisions in digital environments. Thus, this research focuses on perceived risk as a process-driven phenomenon during the dynamic and cyclic customer purchase journey of the digital age.

In summary, we frame this work motivated by the need to contextualize perceived risk in the digital purchase context as consisting of stages and being context dependent as pointed out by Conchar et al. (2004). Moreover, we also look at the customer journey as a dynamic process consisting of stages as stated by Lemon & Verhoef (2016). In fact, this research aims at responding to the need of better understand the relationship among touchpoints and how they influence each stage of the customer journey (i.e. identifying “*moments that matter*”) pointed out by Lemon & Verhoef (2016) study. Thus, this research focuses on the search stage of the customer journey and brings the much-needed customer perspective to dive deeper into customer purchase journeys and to identify opportunities for brand intervention or influence.

Finally, this research seeks to contribute to risk literature and to the emerging stream of customer journey literature by providing an in-depth analysis of consumers’ motivation and expectations of the value of each channel throughout the journey and their perception of risk of each touchpoint during the information search stage of the customer journey. Importantly, we focus the discussion on the purchase experience of digital natives, providing in this way empirical evidences on this specific customer segment that is relevant in the understanding of the digital purchase journey. Thus, this research aims to contribute to the theorization process of perceived risk during the search stage of the purchasing process to fill gaps pointed out by literature (i.e. Conchar et al., 2004; Edelman, 2010; Grant et al., 2013; Lemon & Verhoef, 2016; Mandel, 2003) on understanding what drives customer journeys and how perceived risk develops in the digital era from a customer perspective.

As shown in figure 4 we present an “a priori” model of perceived risk during information search in digital purchase contexts derived from literature. This is consistent with the prior research in which we build our theoretical framework (Edelman, 2010; Grant et al., 2013; Lemon & Verhoef, 2016). In the model the customer purchase journey and the search stage are dynamic and cyclic processes in which interaction and processes occur at the different touch points of the process of information search and perceived risk. Information search is both internal and external and comes from digital and traditional sources. Finally, from the literature we know that there is a relationship between information search and perceived risk but we don’t know how is this relationship in the current digital era.

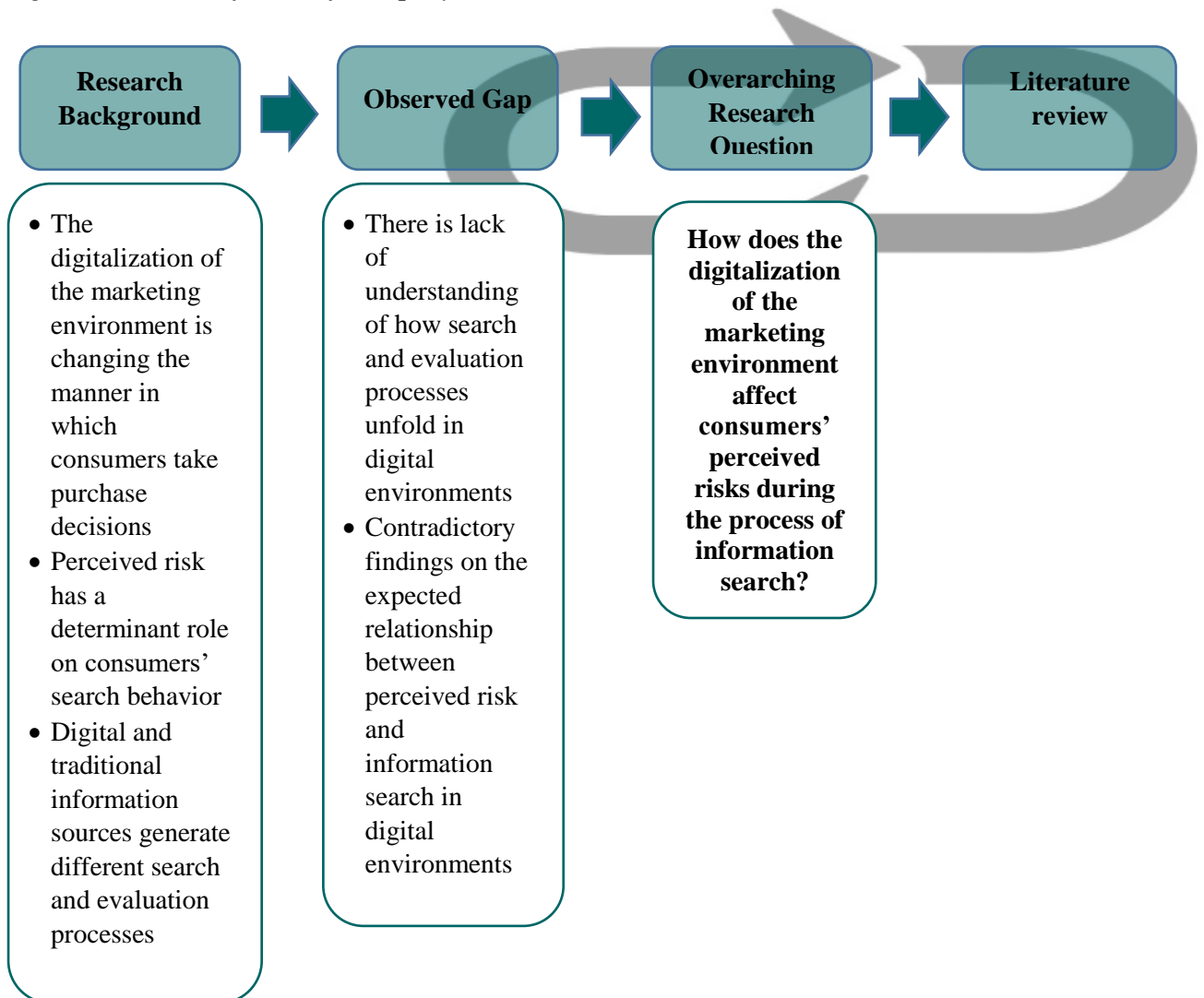
Figure 4. A priori Model of Perceived Risk during Information Search in Digital Purchase Contexts derived from Literature



Moreover, as a result of this study of related literature we verify that there is a lack of understanding on how the digitalization of the marketing environment is affecting perceived risk during information search. More specifically, we observe that first there are tensions between the observed phenomenon and the marketing practice in this domain; and second, that there are conflicts in the related literature of perceived risk and

information search. Accordingly, the revision of related literature allows for the consideration and refinement of the observed gap and research question. Thus, iteration exist between the stages of the scientific inquiry. Figure 5 summarizes this process of scientific inquiry at this point when we have identified a phenomenon that affects perceived risk and information search but whose understanding is limited. As stated before, it follows the abductive and inductive nature of this research. Thus, the observed gap guides the revisions of literature and reviewing the related literature allows for the statement of the overarching research question.

Figure 5. Process of Scientific Inquiry at Literature Review



CHAPTER 3: RESEARCH GAP

3.1 Introduction

The digitalization of the marketing environment is changing consumer purchase decision-making behavior as it is changing the process and interactions that build the model to describe the consumer purchase decision-making process (Darley et al., 2010; Grant et al., 2007). More specifically, the purchasing process seems to become dynamic and with an extended evaluation stage (Edelman, 2010; Følstad & Kvale, 2018). Prior research has observed that in the case of experience-type products when digital information sources don't meet consumers' needs, an iterative process occurs involving switching between digital and traditional information sources (Grant et al., 2013; Lemon & Verhoef, 2016). Indeed, it has been found that consumers prefer digital sources for search-type attributes as it is easy and comparable online, whereas they would still prefer to rely on traditional sources for the evaluation of experience-type attributes as traditional sources provide experiencing opportunities for them to try, judge and decide (Grant et al., 2013).

Moreover, instead of observing a clear-cut situation where depending on the type of product we could predict the use of digital or traditional selection sources, what we are observing is a seamless and dynamic integration of digital and traditional information sources in the consumer purchase decision-making process (Darley et al., 2010; Edelman, 2010; Grant et al., 2007; G. Lee, 2010).

Therefore, we observe that the use of digital and traditional information sources generates different search and product evaluation processes (Darley et al., 2010; Edelman, 2010; Grant et al., 2007). However, theorizing about the pattern and nature of these differences has been limited. Therefore, there is a lack of research and a need for new theories in the marketing field, and more specifically in consumer behavior to explain how and why these changes in the purchase decision-making process are occurring. Accordingly, this research focuses on the information search phase of the consumer purchase decision-making process.

It is acknowledged that pre-purchase information search is determined by many factors (Moorthy et al., 1997; Schmidt & Spreng, 1996) that are well understood in traditional environments. However, with the digitalization of the marketing environment consumers are using digital and traditional sources to search for information about products in their purchasing process (Chandrasekaran et al., 2017; Grant et al., 2007). Moreover, it has been found that consumers prefer digital sources to search for information about search-type products whereas they prefer traditional sources for experience-type products due to the possibility that higher perceived risk can be attached to digital information sources (Grant et al., 2007). Hence, existing literature points out that perceived risk is a key factor that affects consumer behavior in the information search phase and that this is changing in the fast-moving digital context.

Thus, in order to explain the multiplicity of information search strategies that combine digital and traditional sources in the consumer purchase decision-making process, this dissertation explores how digital information might be influencing risk perception, and thus shaping consumer's information search behavior.

3.2 Research Gap Statement

As we state before, the digitalization of the marketing environment is changing the manner in which consumers take purchase decisions (Darley et al., 2010; Edelman, 2010; Grant et al., 2007). Moreover, we see that the use of digital and traditional information sources generates different search and product evaluation processes (Edelman, 2010; Grant et al., 2013).

Perceived risk has a determinant role on consumers search behavior (Grant et al., 2007; Im et al., 2008; Schmidt & Spreng, 1996) but prior literature shows contradictory findings on the expected relationship between risk perception and information search in digital environments (Grant et al. 2013). While in purchasing processes context, studies such as Chaudhuri (2000) and Schmidt & Spreng (1996) point out that perceived risk increases information search because one way of reducing overall risk is to obtain more information; studies including Biswas & Biswas (2004) and Mandel (2003) suggest that further engaging in information search in digital context might actually result in increased

risk perception, and even purchase behavior deterrence. Moreover, Forsythe & Shi (2003) and Hong (2015) obtain different results in the relationship between information search and perceived performance and financial risk.

In order to be able to overcome this potential paradox between risk perception and information search interaction, this research proposes to advance with a finer grained approach and with a longitudinal perspective to understand how consumers use information sources (digital and traditional) to frame, assess and evaluate perceived risk and how perceived risk is affected by the information consumers collect during the development of the search stage. Furthermore, we bring the risk perception perspective to explore how different types of information sources might actually uncover unexpected additional risks or mitigate them during information search phase of the customer journey.

3.3 Research Questions

As we state before, although there is an increasing interest in understanding the consumer purchase decision-making process in digital contexts in the literature, resulting in a number of studies analyzing the purchasing process in digital contexts (i.e. Berthon, Pitt, Plangger, & Shapiro, 2012; Edelman, 2010; Grant et al., 2013; Peterson & Merino, 2003) many aspects of the specific stage of information search remain unclear when it comes to the use of digital information sources. Moreover, contradictions on the manner in which perceived risk and information search are related during purchasing processes are found in current empirical research works.

Thus, considering the new patterns of behavior due to the digitalization of the marketing environment pointed out in current literature that also proposes a model of perceived risk processing and information search (Anderl et al., 2016; Conchar et al., 2004; Edelman, 2010; Følstad & Kvale, 2018) and the contradictory findings on the expected interactions between perceived risk and information search in digital environments found in recent studies we ask:

How does the digitalization of the marketing environment affect consumers' perceived risks during the process of information search?

Regarding the dynamics in risk perception we specifically ask :

RQ1: *Why are there contradictory findings in the literature on the expected relationship between perceived risk and information search in digital contexts?*

Also, as Conchar et al. (2004) framework suggests, perceived risk occurs during three stages of risk framing, risk assessment and risk evaluation. This approach suggests that risk is determined in a sequence of events during information search. Thus, we ask:

RQ2: *Does time affect or have a role in the manner in which perceived risk unfolds during information search?*

Having observed that according to Conchar et al. (2004) risk arises as a consequence of a series of events that occur during information search, the literature also suggests that in digital environments when consumers don't find the information that they need in order to take a purchase decision, an iterative process of information search occurs (Grant et al., 2013). As Grant et al. (2013) and Lee, (2010) assert, this process involves searching for information at digital and traditional information sources in a dynamic and extended evaluation process. Moreover, as Forsythe & Shi, (2003); Hong (2015) and Mou (2015) affirm risk is determinant in certain purchase decision-making. Therefore, we ask:

RQ3: *What is the interplay between perceived risk and information search in digital purchase context over time?*

Regarding how and why perceived risk changes in the digital age the literature agrees that the digitalization of the marketing environment is changing the way consumers experience the customer journey and the decisions they take during it (Lemon & Verhoef, 2016). Moreover, the literature points out that the digitalization of the marketing environment changes the way consumers communicate with firms and among them, and how value is created during the customer journey (Edelman, 2010; Følstad & Kvale, 2018; Grant et al., 2013; Lemon & Verhoef, 2016). However, although this literature has pointed out that there is a change in the way consumers take purchase decisions in the digital environment and that risk has a role on those decisions (Chaudhuri, 2000; C. Chiu

et al., 2014) the manner in which this digitalization is changing the process of perceived risk processing during information search is not clear. Thus, the fourth research question asks:

RQ4: *How can the changes in the process of perceived risk processing and information search be explained as part of the digitalization of the marketing environment?*

The changes in the customer journey explained in the emerging literature considers the changes in consumers purchase behavior as well as how the different types of risk that are studied in traditional settings are perceived when consumers search for information in digital sources (Forsythe & Shi, 2003; Hong, 2015). However, although few studies pay attention to new consumers' concerns regarding transactions in digital channels (i.e. Edelman, (2010) and Grant et al. (2013) whether there are new concepts, relationships and meanings that emerge in the digital purchasing processes hasn't been considered in the models that explain perceived risk processing during information search. For example, as the studies of Conchar et al. (2004) and Edelman (2010) point out, when digital information sources are integrated to traditional sources. Thus, we ask:

RQ5: *What are the emerging concepts, relationships and meanings that are found to have a role on perceived risk during information search in digital contexts?*

Finally, having observed that the digitalization of the marketing environment is transforming the way consumers perceive risks during information search and their purchase behavior and that all this is occurring in a new way of taking purchase decisions, we ask:

RQ6: *How does perceived risk and its relationship with information search change due to consumers' use of digital information sources during their purchasing processes?*

CHAPTER 4: RESEARCH DESIGN

4.1 Introduction

Having reviewed the relevant literature related to consumers' purchase decision-making process, the characteristics of digital information sources and its influence on consumer behavior, the research gap was highlighted along with the development of the research questions in chapter three.

The current section presents the methodology used in this research to validate the contribution. First, we begin with a discussion on the philosophy and nature of research in social sciences followed by the statement of the research design. Second, we discuss about the data collection strategy and its context, we explain the methods and how participants take part in the study. Finally, we present the data analysis strategy and the approach that we follow in order to present the results.

4.2 Theoretical Perspective

To understand the phenomenon of the present research, we look in more detail in this section at ontological, epistemological and methodological assumptions that set the nature of the research and the researcher's role in the process of scientific inquiry.

We start by studying the philosophy of science in social sciences by acknowledging that extensive debates concerning the nature and philosophy of research in the social sciences have resulted in two main research paradigms, i.e. positivism and interpretivism (Asraf, 2011). The debate concerning relevant philosophy in marketing started in the early 1980's (Deshpande, 1983) which was directed by research perspectives encompassing ontological, epistemological, and methodological assumptions.

The ontological assumption is concerned with the nature of reality (Morgan & Smircich, 1980). From the positivist perspective reality is seen by the researcher as "*objective and singular, apart from the researcher*" whereas from an interpretive perspective it is "*subjective and multiple as seen by participants in a study*" (Creswell, 1994). The

Epistemological assumptions concern about the role of the researcher and its relation with the research. As Pollock & Cruz (1999) affirm, epistemological assumptions illuminate the difference between knowledge and opinion. Under this assumption the role of the researcher in a positivist approach describes reality as a concrete structure, where the researcher is independent from the phenomena being studied. On the other hand, interpretive approach sees the phenomena as highly dependable of the researcher's interpretations (Asraf, 2011).

Literature states that under the positivist approach hypotheses are to be tested using experimental settings or based solely on a priori reasoning. In doing this the researcher uses systematic sampling and keeping independent in evaluating the situation. On the other hand, the researchers using interpretive approach look for uncovering the ways in which individuals participate in the creation of their perceived reality (Creswell, 1994). As such, they do not search for regularities but instead are looking for understanding what is derived internally. Hence, the researcher takes an active role in observing the phenomena (Asraf, 2011; Van de Ven, 2007).

Then, looking at the third assumption of methodology we see that it is well known that there are two main methods used in marketing and consumer behavior which are attached with the two philosophical streams. Positivists are seen to engage closely to quantitative methodology, where hypothetic-deductive research is used to validate theories and hypothesis using mathematical and statistical tools. On the other hand, interpretivists are related with qualitative methods in order to conduct an in-depth appreciation of human behavior and its underlying reasons (Asraf, 2011). These methods are also able to discern not only what individuals say they do but also what they really do, learning in this manner the how's and why's of consumer behavior.

Decades ago, consumer behavior research was mainly conducted using quantitative methods. However, given the complexity of human behavior there is a growing trend in the use of qualitative and mixed methods for social and behavioral science research (Goulding, 1999). Some point out that this trend is the result of the battle of the two philosophical streams that locate mixed methods as in the middle of the positivist and interpretivist extremes.

Having said that, we find that an interpretive approach best suites this research because we are studying individuals' behavior and interaction in dynamic and fast changing

contexts. This builds on research by Creswell (2003, 2009) and the consideration of 'post-positivism' and 'constructivism' when studying the behavior and actions of humans. Thus, we see reality as subjective and diverse where observations and individuals' study cannot be measured in numbers. Therefore, we study individuals' subjective meanings of their experiences toward the specific situation of digital information sources use, that according to 'constructivism' assumptions pointed out by Creswell (2003), given the varied and multiple meanings the researcher looks for the complexities of views rather than narrow meanings into few categories or ideas. Moreover, we focus on understanding the specific context of our study to comprehend the historical and cultural settings of the participants which certainly, interact with each other (hence social constructivism)(Creswell, 2003, 2009). In this sense, the researcher interprets the meanings others have about the world, thus inductively developing a theory or pattern of meaning (Creswell, 2003; Van de Ven, 2007).

4.3 Methodology

Considering the interpretive approach of our research, we find that qualitative methodologies best suites our research as we seek to understand the context or setting of the participants through visiting this context and gathering information personally as Creswell, (2003, 2009) point out.

Accordingly, we use a phenomenological research in order to construct an animated, evocative description of digital settings and its effect on consumers' purchase decisions. Phenomenology as a methodology has been used in organizational and consumer research in order to develop an understanding of complex issues that may not be immediately implicit in surface responses (Goulding, 2005). Moreover, as Goulding (2005), citing Schutz (1967), points out phenomenology as a methodology incorporates details of experience often at the level of mundane everyday life. Thus, this methodology seeks to critically reflect on conscious experience including details of culture and society and its influence on individuals (Goulding, 2005). As Goulding (2005) citing Spiegelberg (1982) states, the goal of phenomenology is to enlarge and deepen understanding of the range of immediate experiences.

The procedure involves studying a small number of subjects through extensive and prolonged engagement to develop patterns and relationships of meanings (Moustakas, 1994). Thus, applying a longitudinal design. According to (Thompson, 1997) a way to analyze participants' accounts is by proceeding through an interactive process that goes from a general view of the phenomenon to a more detailed analysis using hermeneutic endeavor. In this interactive process we start by acquiring a feeling for participants' ideas in order to understand them fully (Goulding, 2005; Van de Ven, 2007). The next step is to extract significant statements, identifying key words and sentences related to the phenomena and then attempting to formulate meanings for each of these significant statements (Goulding, 2005). Finally, it is worthy to say that this process is repeated across participant's stories.

Having said that, we employ a qualitative multi-method design with a longitudinal approach to get the data from consumers. We use Focus Groups, in-depth interviews and consumer diaries of homogeneous individuals of "Digital Natives" to carry out the study. Digital Natives are defined by Prensky (2001) as the generation born roughly between 1980 and 1994 that has been characterized by their familiarity with and reliance on ICT. They are described as living lives immersed in technology, 'surrounded by and using computers, videogames, digital music players, video cams, cell phones, and all the other toys and tools of the digital age' (Bennett, Maton, & Kervin, 2008). Thus, the non-separation of online and offline media constitutes their reality and context. Consequently, we find that to understand this collective, identify the essence of their experiences concerning the purchasing process and interpret our findings, a phenomenological approach driven by an inductive thrust is required.

1) Methods and data collection strategy

In phenomenological research the only one legitimate source of data are the views and experiences of the participants themselves (Goulding, 2005). Thus, we conducted a longitudinal study using consumers' experiences and perception at different points in time of their process of information search.

In our research, participants in a real-time purchase decision-making process of products with significant experience-type attributes participated in three focus groups of six to ten individuals between April 2015 and December 2015. Subsequently, we conducted 32 in-depth interviews, between September 2016 and June 2017 and we collected 5 consumer diaries. From the interviews, one participant and the corresponding interview were removed from the sample because the participant didn't meet the inclusion criteria. Therefore, as table 2 presents the sample consisted of 24 participants in 3 focus groups, 17 participants in the 31 interviews and 5 participants in the research diaries. Details of sample and sampling strategy are provided later in this chapter.

Table 2. Summary of the Methods Employed for the Empirical Study

Method	Sample size	Participants
Focus group	N=3	24 (1:8, 2:6, 3:10)
In-depth interviews	N=31	17
Consumer diaries	N=5	5 (from the in-depth interviews)
Total	3 Focus groups, 31 interviews and 5 research diaries	41 participants

a) Focus groups

The purpose of focus groups was to gain an understanding of the participants' meaning of reality and according to our methodological approach, the basic generation of meaning is always social, arising in and out of interaction with a human community (Creswell, 2003, 2009). Thus, we sought to understand digital natives' settings by gathering information personally about their experiences when searching and evaluating products with significant experience-type attributes. The products were, electronic devices, electric vehicles, clothing and footwear, among others.

Moreover, the focus group's participants used digital and traditional information sources to search for information about these products. Finally, we rely as much as possible on our participants' views of the situation being studied so our focus groups' questions were broad and general in order for the participants to construct the meanings of the situation.

The focus groups helped us to gain a sense of the whole phenomenon by understanding the scope of the influence of the digitalization of the marketing environment to consumers' search patterns and risk perception. It provided a better understanding of the constructs involved in these processes, the meaning of each concept, and the interpretation consumers of the digital natives give to these constructs. Finally, it helped us to guide the second phase of in-depth interviews and research diaries.

b) In-depth interviews

Subsequently, after the first exploratory phase, the next stage consisted on in depth interviews and consumers diaries. Following the phenomenological process, the purpose was to get deeper insights by refining the questions based on the results of the first stage of focus groups. Thus, in the iterative process of first gaining a sense of the whole picture and reading the texts generated from the focus groups, our expectations were to see patterns and differences to focus on and study in more depth in this second phase.

The second phase of data collection consisted on one-on-one in-depth interviews and consumer diaries. This stage of data collection is divided in two phases given the longitudinal nature of this research. Thus, following our theoretical framework we conducted the first phase of interviews and consumer diaries during the early stages of information search, which happen at the risk framing phase of our theoretical framework. This stage of the customer journey starts as soon as the consumer identifies needs and is ready to start a process of information search. According to Conchar et al. (2004) at this point consumers just define their decision goals.

Subsequently, we started following up each one of the participants previously interviewed to identify the moment when he or she has started their information

search, when advancing in information search, and when taking the purchase decision. Depending of each case we conducted a second or third interview with the same consumer throughout his or her process of information search. Complementing the series of interviews, we collected research diaries from some of the participants.

Collecting data at several stages of the purchase decision-making process allowed us to focus on the life-course of the phenomenon and observe the change processes of our qualitative data that was collected and compared across time.

From the in-depth interviews and consumer diaries, we attempted to formulate meanings from the significant statements identified earlier. As in the phenomenology interactive process, the procedure was repeated across participants' stories and recurrent meaningful themes were clustered as Goulding (2005) and Thompson (1997) point out.

The in-depth interviews are pointed out as the main instrument of data collection in phenomenology (Goulding, 2005; Thompson, 1997). Moreover, long interviews are particularly well suited to hermeneutic analysis (Thompson, 1997) which is our interpretive approach. We conducted 32 in-depth interviews that were face to face and with relatively few pre-planned questions as we sought to discover, by establishing a dialogue with the interviewees, consumers' meanings and significant insights in relation to the phenomenon of risk perception during information search in digital contexts. After the first analysis we discarded one interview as the participant experience was a past purchase decision. The final number of interviews was 31.

c) Consumer diaries

As we mention before, we encompass the use of consumer diaries in traditional as well as in digital formats as a tool of support and follow up of the purchase decision-making processes. Thus, the interviewees used consumer diaries to aid in documenting any event or turning point during the information search process. Participants were briefly instructed by the primary researcher to keep note in a notebook or in their mobile phones of every action related to their search processes as well as any written reflection of their feelings and perception about their purchasing processes.

Thus, diaries captured details of consumers' actions related to their information search and purchase activity.

2) Data collection context and sampling strategy

In our research we carefully selected the participants to meet the criteria of being digital natives according to Prensky (2001) definition and characteristics. It is, participants use digital and traditional information sources naturally and simultaneously in their purchasing processes.

As table 2 shows, 8 of these individuals participated in the first focus group, another six in the second focus group and a third group of 10 participated in the last focus group. For the interview part, 17 participants different than those of the focus groups were interviewed two or three times. Finally, from these 17 participants 5 of them provided a consumer diary detailing their information search process during a purchasing process.

Moreover, the total of 41 participants were under a purchase decision-making process of tangible products with experience-type attributes and ready to evaluate those attributes and provide information about their experiences in the process at the moment of the focus groups or interviews. To join participants in our study, we initially obtained references from our University's students, then the primary researcher obtained references from colleagues and personal contacts and later asked early interviewees for further referrals (i.e. Snowball sampling).

These participants met the criteria of being in a purchase decision-making process where risk was an important consideration and choice was complex as Conchar et al. (2004) framework suggests. Regarding the location of the implementation of focus groups and interviews, we used the La Salle – Ramon Llull University facilities and public places of the participants' environment arranged with them.

As Goulding (2005) citing Thompson (1998) states, in phenomenological research, participants are selected only if they have lived the experience under study. Moreover, the study asserts that therefore, sampling is purposive and prescribed from the start and the main instrument of data collection is the interview.

3) Data analysis strategy

To interpret consumers' stories, we used a data analysis strategy that followed a hermeneutic approach. This strategy of analysis suits our research because it includes the influence of participants' context, life circumstances and personal meaning captured in the texts generated by conversations (Goulding, 2005; Thompson, 1997). Moreover, texts of consumers' stories generated by "phenomenological" or "long" interviews are particularly well suited to hermeneutic analysis (Thompson, 1997).

Following the hermeneutic approach, we started the analysis of the texts produced by the focus groups in two stages: The *intratext* cycle that was conducted once the focus groups were recorded and then transcribed. This cycle consisted on reading the entire focus group in order to first gain a sense of the whole (Thompson, 1997). Subsequently, we carried out the second cycle of *intertextual* analysis that allowed the identification of common meanings among participants and across focus groups and the emergence of patterns of behavior (Goulding, 2005; Thompson, 1997).

The initial insights from the first stage of data analysis of focus groups guided the second stage of data gathering collected through the in-depth one-on-one interviews and research diaries. Focus groups' findings allowed the refinement of questions and issues that we then addressed during the interviews as they discovered the range of initial constructs, concepts, meanings, relationships and patterns of the phenomenon. Figure 5 shows this interaction between initial data and refinement of research questions. Thus, the in-depth interviews deepened into the meanings and patterns of behavior identified earlier in order to understand the how's and why's of the meanings and behavior to get an understanding of the phenomenon in deep.

Similar to the analysis of focus groups, we recorded the interviews and then we transcribed them. First, we analyzed the interviews one by one during the *intratext* cycle and then, we conducted the *intertext* cycle in order to construct the patterns of behavior from the findings. Moreover, we analyzed the interviews following the longitudinal nature of this research as it is detailed in the following paragraphs.

This research used NVIVO 11 Pro software as the main analytic tool in order to manage the large amount of eclectic qualitative data. Using this software all recordings, transcripts and coding data are stored in a file saved by the authors. The process of analysis started with uploading the transcripts of the focus groups and interviews and then conducting the two cycles of intratextual and intertextual analysis that we mentioned before. It is, analyzing consumers' stories one by one in an individual fashion and then comparing and analyzing all the stories in a collective manner.

Then, following the longitudinal nature of this research, we conducted the process of analysis of interviews using guidance from our theoretical framework. The different steps that we followed in order to analyze the data were:

- First, we gained a sense of the whole phenomenon reading the transcripts from the focus groups, interviews and research diaries.
- Then, we constructed a narrative that represents the entire process of information search and risk processing.
- After that, by observing and comparing the consumers' stories and the general narrative we identified different phases that occur throughout the development of the process of information search and risk processing. We used time bracketing to identify these stages.
- We used codes to identify the distinctive characteristics of each phase and then we named each phase accordingly.
- We coded the entire data using the constructs and interactions identified in the literature. Then, we proceeded to code the emerging concepts, interactions and meanings that emerge in our data and we analyzed how the codes identified in each stage behaves in the following stage. We elaborate more on our coding strategy at the end of this chapter.
- After that and once we coded the data, we organized them by stages, provided a definition and described them. Moreover, we provided verbatim from selected stories on the data to illustrate the codes.
- We selected 4 representative consumers' stories to illustrate the process that occurred following the identified stages and we created the narrative for each of

the 4 consumers' stories following its natural chronological order. This narrative approach is appreciated by researchers because it's found to produce a rich body of knowledge unavailable through other methods of analysis in organizational studies (Rhodes & Brown, 2005) and in Marketing, because it aids the interpretation process of consumption texts (Shankar, Elliott, & Goulding, 2001).

- Iteratively, we compared and contrasted the findings that we organized by stages with theory.

Thus, we analyzed each phase in retrospect to get findings across time and being able to contemplate changes processes and patterns that give meaning to the life course of the phenomenon. That is, the contemplation of how perceived risk develops through time as consumers advance in the process of information search. In the next section we explain the coding strategy used to analyze the qualitative and longitudinal data of this research.

a) Coding strategy

According to Saldaña (2013), coding is an exploratory problem-solving technique without specific formulas or algorithms to follow. It is the first step in the process of analysis that helps us link the data to ideas and subsequently the idea to all the data pertaining to the idea. This is done through cycles of analysis that refine and give meaning to the data allowing patterns, categories and subcategories, themes and concepts to emerge and leads to theory (Saldaña, 2013) or that is then constructed into a theory (Shepherd, 2017).

As this research seeks to understand how risk perception and consequent behavior performs during consumers' information search we used longitudinal coding in order to examine the changes that occurs in this matter across time. Saldaña (2013) citing Clausen (1998) points out that *“reporting the life course can be structured and mapped thematically and narratively as well as chronologically in unique analytic blends”*. Thus, following this coding strategy we firstly coded in a descriptive manner our observed consumers' perception, values and beliefs at the first stages of the process. In this first coding stage we followed principles of verbal exchange (Saldaña, 2013) which allow the interpretation of cultural practices and meanings that emerge

in ordinary conversations, social interactions, personal narratives and non-verbal communication documented in research notes. Consequently, we coded the consumers' perception, values and beliefs as the consumer's story develops. Finally, following longitudinal coding strategy we reviewed the codified data at the end of the processes to see the changes across time by categories of increase and emerge; cumulative; surges, epiphanies and turning points; decrease and cease; constant and consistent, idiosyncratic and missing suggested by Saldaña (2013) to summarize and create the narratives. Examples of codes are: Consumers' perception: *Initial perception of financial risk*; values: *Hedonic values surges*; and beliefs: *Trust in digital information* and are detailed in the coding tree that we provide in findings.

The coding tree of both, initial stages and advanced information / after purchase stages are provided in appendix 1 and 2.

4.4 Ethical Considerations

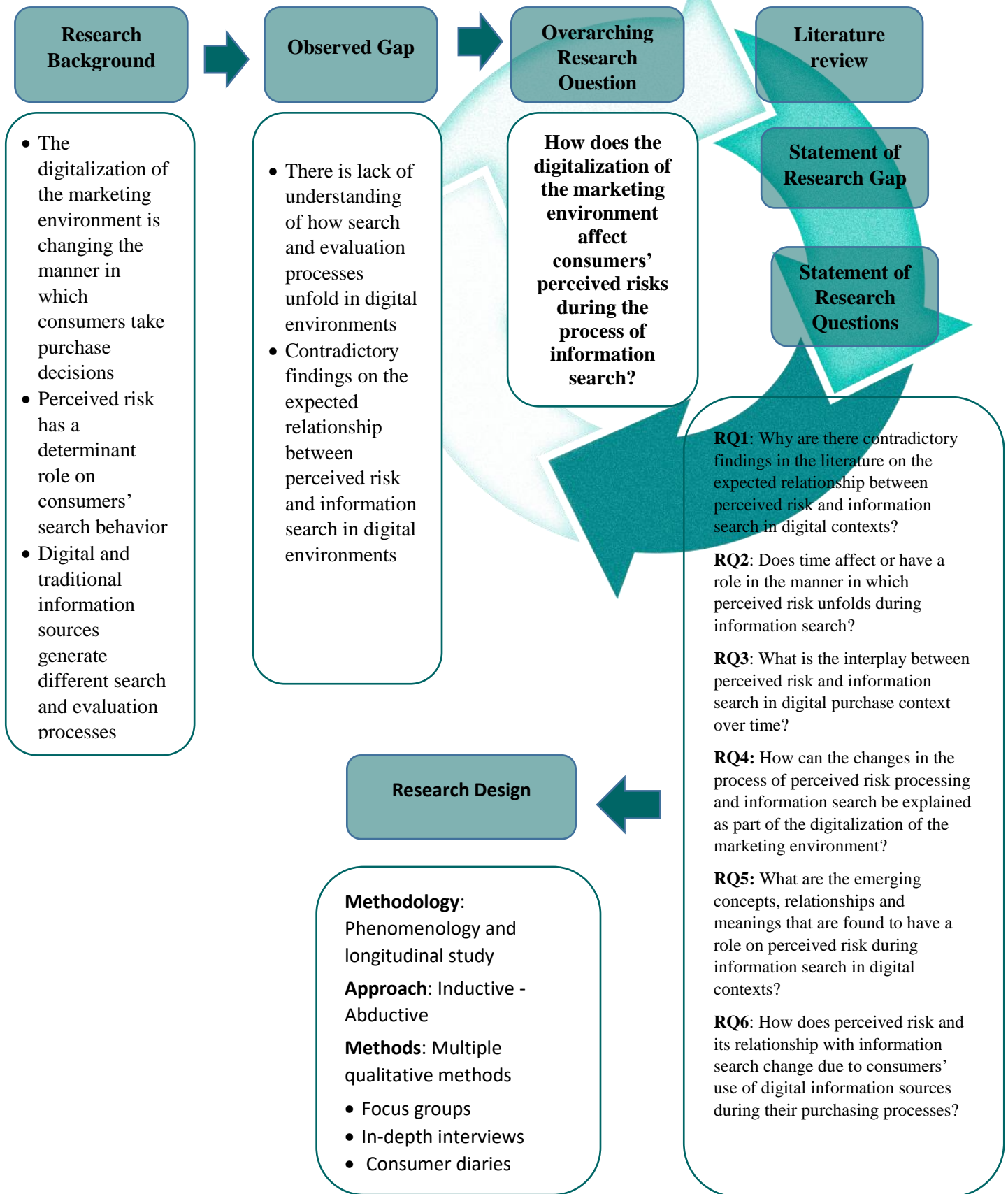
Ethical considerations are paramount in all research from its design to conclusion (Fossey, Harvey, Mcdermott, & Davidson, 2002; Lincoln, 1995). This research followed the ethical consideration guidelines designed for social sciences research of Ramon Llull University. These guidelines are in line with the European Code of Conduct for Research Integrity presented at the "*Jornada D'Ètica de la Recerca en Ciències Socials*" (Social Sciences research ethics day) organized by Ramon Llull University in 2018 and that the primary researcher attended. Moreover, consistent with the qualitative research quality and ethical considerations found in literature (Fossey et al., 2002; Goulding, 2005; Lincoln, 1995), we followed the criteria of methodological and interpretive rigor. This includes principles of transparency (Fossey et al., 2002), in our data collection and analysis as we show the different consumers' experiences and opinions that were in fact, diverse. Moreover, we put effort in securing adequacy (Fossey et al., 2002) as we had sufficient sources of information in our sample to being able to develop a full description of the phenomenon. In fact, the description of the multiple and sufficient sources of information is stated in the written documents of this dissertation. Regarding data gathering and analysis, we provided a detailed description of the methods used to collect data and of the analytical processes and tools that include several cycles of iteration

consistent with our data analysis strategy (Fossey et al., 2002; Goulding, 2005; Thompson, 1997). Also, we secured the principle of authenticity (Fossey et al., 2002), by following Goulding's (2005) guidelines in phenomenological research that are characterized by the use of participants' own voices as the only one legitimate source of data. These participants' views and experiences are presented in verbatim quotes, consistent with the hermeneutical approach of our data analysis strategy, which are the texts and transcripts of the authentic voices of participants in this research.

Moreover, we followed the principles of permeability of the researcher's intentions, engagement and interpretations (Fossey et al., 2002) as the role of the primary researcher and her intentions were made explicit to participants during interviews and focus groups and in the consent form signed by them. Finally, the participants of this study didn't receive any payment, course credit or anything of value and their participation was fully voluntarily. The privacy and integrity of participants were protected and they were informed at all times that their information was going to be used exclusively for the purpose of this research and that they could desist of participating at any moment. Moreover, the names of participants were changed in order to protect their privacy. Therefore, names used in the verbatim and narratives in findings and discussion sections are fictitious.

As figure 6 shows we advance in the process of scientific inquiry by establishing the specific research questions and the methodology in order to find an explanation of the phenomenon of study. As it is mentioned throughout the manuscript interaction exists between stages of the research.

Figure 6. Process of Scientific Inquiry at Research Design



CHAPTER 5: FINDINGS

5.1 Introduction

In this section we present the results of the empirical study that aims at understanding how the digitalization of the marketing environment affects perceived risk during the information search phase of the customer journey. We conduct the study using the process outlined in chapter 4.

Firstly, we describe the strategy we use to organize the entire data including the first exploration that help us gain a sense of the whole. This strategy follows a hermeneutical research principles pointed out in the literature (Goulding, 1999; Thompson, 1997; Van de Ven, 2007). Secondly, from consumers' stories we construct a general narrative that illustrates the entire process of information search. Thirdly, we qualitatively analyzed the data in chronological order, which corresponds to the structure of the interviews and then we proceed to use time bracketing to identify phases of the process of information search and perception of risks during it.

To present the findings, we follow an interactive process of presenting the findings of the empirical study, summarizing the main conclusions and illustrating them with the narrative of selected cases. In order to aid the interpretation process of consumption texts, we constructed these narratives that show the relevant events that make sense of the findings. This builds on research by Shankar et al. (2001) and the consideration of narratives in telling consumers' stories in temporal sequences that are causally linked.

Finally, we recapitulate the findings of this section, draw the main conclusions, wrap up the chapter and introduce the following chapter of discussion.

1) Stages in Perceived Risk during Information Search Process

As explained earlier, we qualitatively analyze the data of each of the participants' interviews. The process of data analysis consists on conducting the analysis in chronological order; thus, we move from the first to the second or third interview and so on for each participant. As we explain in chapter 4, we conduct the first interviews at the beginning of the purchase process when consumers are preparing for information search and then we conduct a series of interviews to follow up their purchasing process.

From the qualitative analysis, we coded participants' perception, actions, beliefs and interactions observed in the data. As a result, and taking as a reference the work of George & Jones (2000) on the role of time in theory and following our methodological perspective, we disclose from the empirical data 5 stages of perceived risk processing during information search. As George & Jones (2000) propose, all conscious and motivated information processing takes place within the flow of time, and people experience time by choosing the way they aggregate this experience into episodes so that they can explore and reflect upon it.

The stages that we identify in our data are:

- Preparing for information search
- Initial information search
- Advanced information search
- Preparing for purchase
- Purchase decision-making and post purchase behavior

Depending on the case, consumers can move from one phase to the other in a short period of time (i.e. half-day) thus, the boundaries between phases can be sharp. However, our data shows distinctions among five phases that develop over time regarding perceived risk during information search. We now present the findings for each phase, the description of the codes where the findings come from and the illustrative narratives in the following manner:

- In stage 1, each code disclosed in the data is described and illustrated by a short verbatim quote from participants' narratives. Then, the findings related to each code is presented. Finally, the full narrative of participants in stage1 is displayed.
- From stage 2 to stage 5, we start by following up how the codes identified at stage 1 and previous ones, act and evolve at each of the following stages. Next, we describe the emerging codes and how they relate with existing concepts and relationships. Also, we provide the verbatim quote for each of the emerging codes. Finally, as in stage 1 we provide the full narrative of participants' stories for the rest of stages.

In addition, the content that is developed in each stage is provided at the beginning of each of these sections. To do so, we present at the beginning of each stage a table of content to help understanding the findings presented. The table of content summarizes the content developed in each stage and it is organized in the following manner:

In stage 1, we describe the codes identified and provide the evidences in the data in the narratives section. Then, from stage 2 to stage 5 we:

- Provide the description of the evolution of the codes identified at the previous stage;
- Present the emerging codes; and
- Illustrate the findings of the section in the narratives

5.2 Stage 1: Preparing for information search

Content

Stage 1: Preparing for information search
Table 3. Summary of codes identified at preparation for information search
<ol style="list-style-type: none"> 1. Use of key reference points 2. Importance of product's attributes and initial perception of performance risk 3. Initial perception of financial risk 4. Action plans to reduce initial perception of performance and financial risk
<p>Narratives:</p> <p>Tim at stage 1</p> <p>Monica at stage1</p> <p>Table 4. Summary of Stage 1 - Narratives</p>

By coding consumers' perception, actions, beliefs and interactions we identify the first stage of preparation for information search. In our data this stage is characterized as the specific moment when consumers haven't engaged in information search yet but are preparing and planning their further actions of information search. Four main recurrent concepts from consumers' stories were identified and coded for this phase:

- Use of key reference points;
- Importance of products' attributes and initial perception of performance risk;
- Initial perception of financial risk;
- Action plans to reduce initial perception of performance and financial risk.

Table 3 provides the description of each code and the verbatim quotes from consumers' stories to illustrate each code.

Table 3. Summary of Codes Identified at Preparation for Information Search Stage

Code name	Description	Verbatim quote
Use of key reference points	The use of key reference points in order to prepare for information search. It is defined as benchmark position against which possible outcomes are compared (Conchar et al., 2004)	<i>“I talked to a friend who also uses glasses. She is from Barcelona, she knows good optic shops so I already have a starting point”</i> (George, male participant buying contact lenses)
Importance of product’s attributes and initial perception of performance risk	The initial product characteristics or attributes that consumers are aware of and desire before engaging in information search and the initial perception of performance risk related to those attributes	<i>“Aesthetically I do not care, but I would like, for example, to have the option, for the mobile, good Bluetooth and put the songs from my mobile and such ... Then, a screen”</i> (Sarah, female participant buying a car)
Initial perception of financial risk	Consumers’ concerns related to expected financial losses that are perceived before engaging in information search	<i>“I am concerned about someone stealing the motorcycle. At that moment I would own a value that suddenly it wouldn’t exist anymore”</i> (Tim, male participant buying a motorcycle)
Action plans to reduce initial perception of	Plans about the future steps to take during the process of information search in order	<i>“What I will do is to get information on the Internet. I will search for information about the</i>

performance and financial risk	to decrease initial perception of performance and financial risk	<i>car, to see the good things, bad things and then I will go to the dealer to ask about those things. To see what the salesman says and how he reacts about that information. Also to check that what he tells me is true or not".</i> (Robert, male participant buying a car)
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Our findings show that during the customer journey, interviewees prepare for information search as soon as they recognize needs and establish their decision goals as Bettman, Luce, & Payne (1998) assert. We observe that once participants establish their decision goals, they create expectations about how their further search activities will look like. In fact, they plan their further experiences during the customer journey. We observe that participants obtain initial information by exploring the scenario (for instance in Google, that accounts for 83% of all organic online search (Chandrasekaran et al., 2017)) in order to prepare their budget and understand the amount of available information about products on the web and also on physical stores. In this way they learn about the number of possible links to navigate further, the brands that offer the specific product category and the stores, whether physical or digital, where they can buy the product. Also, at preparation for information search we observe that these consumers make use of references and establish the attributes of the product that they plan to look for but at the same time they show signs of being perceiving financial and performance risks.

For instance, Paul a male participant buying a brand-new car, shares at the very first interview how he is preparing for information search. He asserts: *“Based on the budget that we (my family and I) have decided ... I started looking online for prices, special offers because simply on the Internet now there are many special offers”*.

Correspondingly, as shown in table 3, preparation for information search stage is characterized specifically by the following coded concepts:

1) Use of key reference points

One of the first things we learn is that consumers prepare for information search using key reference points. These references originate from consumers' past experiences with stores and with their social interaction with people in their immediate environment. For instance, their close friends in their offline environment (with whom they also interact in digital channels) such as friends, family and colleagues.

For instance, when asked about whether he has search on any website to learn about the product, George who is buying contact lenses responds: *"No, I have been guided purely by people's opinion. People who have already used them"*.

Also, when asked about who these people are, George responds: *"They are friends, and friends of friends"*.

Also, consumers create references from their regular information search, termed "ongoing search" (Engel et al., 1995; Peterson & Merino, 2003). In search literature, ongoing search is described as continuous, regular and general activities (Engel et al., 1995; Peterson & Merino, 2003). Moreover, our empirical study finds that digital natives prepare for information search using references about brands. Brands' references are originated from consumers' past experiences with them, brand reputation created by other consumers and brand perception formed from the marketing communications.

For instance, in terms of ongoing search, Oliver, a male participant buying a smartwatch explains about blogs: *"It's not that I particularly search for information there (referring to blogs), it's that I am always reading it on a daily basis and when things come out I read them"*.

Ultimately, participants state that at preparation for information search they establish conversations with the people around them about products. We see that consumers use references such as friends' advice, considering their trust on them, as a way to determine their further information search path. Finally, we find that consumers conduct ongoing search at digital blogs and forums and subsequently they use that information as key reference points for their preparation for information search.

2) Importance of product's attributes and initial perception of performance risk

In addition to the use of references for information search preparation, we learn that consumers prepare for information search by establishing sets of attributes that respond to their immediate needs. At this point, consumers also get ready to search for information by determining importance level for each of these attributes. Namely, they establish the "must have" attributes, those attributes they would like the product to have, and those that they don't consider essential. Something that gets our attention is that consumers determine their desired characteristic of the product before engaging in information search. Consumers rely on references to determine products' attributes.

Monica's experience at preparation for information search about a smartphone illustrates this: *"Yes, I want it... I really like the phone to have a radio. Also, I have seen cameras that are 13mpx that I liked. So in terms of quality I would be looking around that (attributes)"*.

Moreover, we see that consumers plan their information search actions with a starting point in mind about product quality which is based on attributes. At that moment, they start perceiving performance risk as they try to avoid future regret of not getting the products' attributes just established. Moreover, we see initial perception of performance risk as participants assert that they are convinced to go and evaluate products in a physical manner before buying because they are concerned about product performance. In fact, at this moment of preparation for information search, participants believe that trying on products is the best way to get information in order to decrease perceived performance risk.

As a consequence of this initial performance risk perception we observe that consumers decide to engage in information search in order to decrease them focusing on information about the specific attributes that are of their concern.

Mike's opinion illustrates this finding: He asserts: *“What I always do when I buy something is to go and see it first, to any store although I will not buy it there. I mean Mediamarkt, Corte Ingles... I don't care the store as long as I can see it (the product) before”*.

3) Initial perception of financial risk

The findings show that when consumers prepare to engage in information search they are concerned about facing financial losses. In fact, consumers struggle to establish budgets since the initial stages of information search. During the first interviews, at preparation for information search, we observe that participants start considering their financial limitations and thinking about their budget for the purchase. At this point, they articulate their intentions to stay within their budget and their concern about facing financial losses.

Moreover, the interviewed consumers comment upon their plans for information search and state their concern about facing financial losses. Thus, we find that when consumers prepare for information search, they perceive financial risk.

We observe that participants' financial risk perception is manifested in the following ways at preparation for information search: Firstly, participants state that they need to search for information to get informed about prices and from there establish their budget. Alternatively, they already have established a budget, and their intentions are to stay within that budget. Secondly, participants explained to us their concern about being stolen in the future and also of being cheated by false websites or sellers and lose the money they invest in purchasing products. We interpret these concerns and fears as perceived financial risk given participants' arguments of seeing them as a way of losing money.

As Monica, who is buying a smartphone says: *“I did not imagine they could be so expensive with the characteristics I mentioned. And people has told me that they are around 250 or 300 Euros. So, I will try to find any smartphone with these characteristics that is 250 or less. Let’s see if I can find it”*.

4) Action plans to reduce perceived financial and performance risk

As a response to the initial perception of financial risk observed before we also see that at preparation for information search consumers plan to deal with perceived financial risk by taking actions. In fact, when interviewing participants at their preparation for information search stage they verbalized that as with perceived performance risk, they plan to go to physical stores given their perception of financial risk. We observe that participants perceive that by going to physical stores they can manage in a better way perceived financial risk and plan to search for information in these channels as a strategy of risk reduction.

Thus, when preparing for information search consumers think of conducting their information search in certain manner in order to diminish perceived financial risk such as trusting physical stores due to better warranties and insurance.

Going in depth into this, when it comes to dealing with perceived financial and performance risk, we observe that participants trust more on physical stores than on websites. We find that this happens because they believe that warranties are easier to claim at physical stores than at websites due to higher possibilities to return to physical stores in the case of warranty’s claims and product’s poor performance. Moreover, we find that these consumers perceive that at physical stores promises are done by a person that is accountable for product performance. In fact, one of the first things we learn is that at preparation for information search consumers don’t find a human embodiment in digital sources and when it comes to perceived financial risk trusting someone who responds has been found as a strategy of risk reduction.

We find that another reason for higher trust in physical stores than websites is that participants need to physically evaluate the tangible and experience-type attributes when they are concerned about financial losses.

Finally, we observe that these consumers trust in their previous experiences at the store and in the physical environment where they live. Stores located in participants' known environments are perceived as more reliable than digital stores when they have to spend money in exchange of a product. Thus, trust appears to have a role on how consumers deal with financial and performance risk perception at the stage of preparation for information search.

As Monica, a female participant buying a smartphone, explains to the interviewer: *“As I like the store and I know the owners, because I have bought there before and I trust on them in terms of warranties that they respond. I plan to go ... I mean I prefer to go there to see which ones they have, to see if what they have complies with the characteristics, I told you before and also with the price. So, I will pick one from there”*.

Stage 1 - Narratives

Tim at stage 1

In terms of exploration of information channels and the use of key reference points, there is a general trend among digital natives of exploring their options at digital sources and using references from close friends, family or colleagues. As Tim, who purchases a motorcycle describes, he started preparing for information search “looking” around and asking his friends. *“I have started to look, to ask friends and precisely, a friend of mine just did this journey exactly as I am doing it now. Basically, finding out on the Internet that there is a company that usually rents motorcycles but also they sell every certain time motorcycles of the 125 type with a big discount”*.

Moreover, it becomes evident that Tim uses key reference points about brands to prepare for information search. He asserts that he recognized the brand his friend suggested when he remembered a past experience with the brand. Tim remembers: *“I found this people promoting the product in a mall, through them I have known the brand” ... “Thus, I already knew about the brand when my friend told me about it, so I linked the two things”*.

Also, Tim establishes conversations with friends and from these conversations he determines his further steps. For instance, Tim states how he trusts his friend and follows her advice. *“She was very satisfied with her purchase; she purchased this motorcycle and in the end, it wasn’t bad... it seems a very good option so I am orienting myself towards this”*.

In terms of the establishment of product attributes, consumers determine their desired characteristic of the product before engaging in information search. Moreover, these attributes are established using references as well.

Monica at stage 1

As Tim does, Monica who is buying a smartphone, uses references from her previous experience with the product and from her close friends' advice to prepare for information search. Monica explains her plans to search for information at the early stages of her purchase process and establishes the attributes she is expecting to consider in her information search. She explains: *"As I have a 4G SIM card I want a 4G phone to take advantage of its technology, right? And looking for a smartphone, then I look for those attributes of smartphones like GPS, Wi-Fi, and Bluetooth"*.

As we can see, Monica prepares for information search elaborating a list of attributes. Moreover, she continues explaining about the attributes she will be looking for based on her previous experience: *"And also, I like when phones have FM radio, and the camera. The one I use to have had the rear camera of 8 megapixels, and the front-facing one was of 5. Thus I am looking for better quality" ... "I have seen 13 megapixels cameras, I really like them, and so I would be looking for something like that"*.

Monica also shares her plans to search for the attributes she established using references from close friends: *"I have been told that the processor has to have 4 cores with a speed of 1.5, so it can run fast"*. In fact, when asked about who told her about those characteristics she responds: *"My boyfriend told me. He was talking with his cousin that knows better and He is telling me what's necessary for my new phone, so from there I will search for a smartphone"*.

In terms of the symptoms of perceived financial risk, Monica manifests her concerns related to financial losses. She explains: *"The fear I can have is in case they could still it (the smartphone) again, because of course it is an investment that is three times my previous phone's price. Thus, I have to think very well whether I am doing it (the investment) or not. Because it is a much more expensive smartphone and I have to keep an eye on it much more"*.

Moreover, she explains the ways she plans to search for information in order to avoid financial losses. In fact, she reveals her preferences and trust in physical stores. When

asked what worries her at the moment, Monica responds: *“Well, warranties. I mean that I have difficulties contacting the person where I buy from. For instance, through Internet. I don’t like purchasing on the Internet because of that, because I can’t go there... because if something happens with the smartphone I can’t talk face to face with anyone to solve my problems and those are problems that increase through time, and I am not interested in that”.*

Table 4. Summary of Stage 1 - Narratives

Stage 1 narratives	Tim	Monica
	<ul style="list-style-type: none"> • Uses key reference points • Plans his next steps of information search 	<ul style="list-style-type: none"> • Also uses key reference points • Stablishes the product’s attributes to look for

Summarizing, we learn that consumers prepare for information search using different strategies in order to diminish initial perception of risk. Although the diversity of strategies in our results, it becomes evident that there are patterns that explain and differentiate the stage of preparation for information search from other stages. For instance, we observe that at very early stages of information search, participants use digital information sources to understand and plan the further process of information search. However, they still use traditional information sources to prepare for the entire process, plan the next steps and frame their information search. Moreover, we see that participants establish their pattern for information search using references of the type of previous experience, social references and brand’s positioning. Another finding from our study is that consumers plan the level of product quality they desire to obtain and adapt their further search strategies in order to achieve those parameters, including budget. Finally, we learn that at preparation for

information search consumers organize their further search activities with the intentions to avoid perceived financial risk.

In conclusion, at preparation for information search a dynamic relationship between the initial perception of performance risk and financial risk motivate consumers to plan their information search actions and to use key reference points in order to mitigate those risks perception.

In the following section that deepens into the second phase identified, we explain how consumers continue with information search process and how perceived risk behaves at that specific stage in the information search and risk processing process.

5.3 Stage 2: Initial information search

Content

Stage 2: Initial Information Search
<p>1) Evolution of codes from stage 1 to stage 2</p> <ul style="list-style-type: none"> a. Use of key reference points b. Perceived Performance risk <ul style="list-style-type: none"> i. Trust <ul style="list-style-type: none"> 1. Consideration of positive and negative product’s feature 2. Consideration of multiple brands 3. The perception of reliability of the source of information ii. Distrust c. Perceived Financial Risk <ul style="list-style-type: none"> i. Discovery of mechanisms of financial loss recovery particular to digital channels d. Actions plans to reduce perceived performance and financial risk
Table 5. From stage 1 to stage 2 (evolution of codes)
<p>2) Emerging codes in stage 2</p> <ul style="list-style-type: none"> a. The role of trust (related to perceived performance risk) b. Discovery of mechanisms of financial loss recovery particular to digital channels (related to perceived financial risk) c. Potential association between perceived financial risk and perceived performance risk
Table 6. Summary of emerging concepts at initial information search stage

Figure 7. Dynamic relationship between information search and perceived risk from stage 1 to stage 2

Narratives:

Tim at stage 2

Oliver at stage 2

Rachel at stage 2

Table 7. Summary of Stage 2 -Narratives

As we continue our qualitative analysis following consumers' stories, we observe that they start conducting actions of information search. We coded these first order concepts and identify a second stage that differs from the previous stage in that consumers engage in actions of information search rather than just planning these actions. Moreover, we observe that these activities of information search affect consumers' initial perception of risk.

On the one hand, we find that consumers' perception and actions identified in stage 1 evolve in a way that we describe below as a consequence of their information search activity. On the other hand, we observe new perception and behavior that emerge in this second stage.

1) Evolution of codes from stage 1 to stage 2

Firstly, in this section we analyze consumers' perception identified and coded earlier and observe how this perception behave in the second stage of the process. Then, we describe the beliefs and actions that affect the initial codes in this initial information search stage and finally, we discuss the consumers' behavior and perception that emerge at this second stage of the process.

We learn that during stage 1 consumers prepare for information search. Although at this early stage of the process consumers don't collect information yet, we observe that they already perceive risks and plan their further actions to mitigate them. For instance, participants use key reference points such as friends' advice to establish benchmark points in terms of product attributes and plan what information to search and where.

At stage 2 of initial information search, we observe that consumers continue with their search process engaging in actions of information search such as website navigation, store visits and online reviews reading. In this way they search for information about products, sellers and brands in order to learn more about products and also in order to decrease their initial perception of performance and financial risk. Moreover, we find that consumers' initial perception of performance and financial risk are influenced by the new information that they collect during this second stage. We analyze below how consumers' initial risk perception perform as participants obtain more information in the process and the outcomes of this information search at this stage of the process.

a) Use of key reference points

We find that the use of key reference points persists in the second stage of initial information search. However, we see that at this stage of the process they are used as one of the multiple sources of information in the sense that consumers resort to these references to learn about specific attributes and not just to have a starting point of reference as it happens at preparation for information search. It means that consumers simultaneously use different sources of information including key reference points at the initial stages of the process of information search to learn about specific information. For instance, consumers ask for advice to their friends, colleagues or relatives that have had experience or knowledge on the specific product category. In fact, participants articulate how they ask close people about brands and products and how they completely trust this information.

As Tim, a male participant buying a motorcycle states: *“Well in fact, I trust more my friend's opinion in this case than the brand”*.

Moreover, whereas consumers acquire information from key reference points such as their ongoing interaction with close friends in their environment at preparation for information search, at initial information search they actively engage in search activities among people that can provide first-hand information.

For instance, in the in-depth interviews, participants verbalize that when they started their information search, they asked friends in order to help them paying attention to product's attributes that they may forget. In addition, we observe that consumers also search for information from key reference points of the type of "*experts*". For instance, asking a mechanic about a vehicle performance.

For instance, Robert who is buying a car states: "*I will go to the dealer with her (his girlfriend) because maybe she sees other attributes that I don't pay attention to. For instance, things about safety and those things*".

b) Perceived performance risk

Analyzing perceived performance risk, we find that as participants move from stage 1 to stage 2 they collect information that allows them become aware of the positive and negative aspects of products and brands at stage 2 of initial information search. Also, these consumers discover new brands and products that were not considered by them at preparation for information search.

Moreover, we observe that during this second stage participants engage in actions of information search in order to decrease initial performance risk perception. As a result, we see two alternative scenarios: A reduction of perceived performance risk and advancement in the search process or a persistence of perceived performance risk that encourages consumers to search for more information.

From our findings it appears that whether scenario one or scenario two occurs depends on the manner in which consumers trust the information collected and the sources of this information. We disclose that one of the factors that influences the manner in which performance risk perception decreases by searching for information during initial information search is trust. We code this emerging concept and develop how it influences risk perception in the following sub-section.

i) Trust

The results show that trust in information sources determines whether digital information reduces perceived performance risk. We observe that information coming from official brands' websites or known online retailers is trustworthy for consumers as they already know the brand and are familiar to it.

Moreover, we find that participants read online reviews at forums, blogs or retail sites and they trust the information when the reviews are perceived as real and non-biased. Moreover, we find that at this initial phase of information search when consumers trust in digital information, they are able to reduce perceived performance risk.

However, we also observe that when participants don't trust in digital information, performance risk perception persists and thus, they engage in more information search.

Going more in depth our findings provide details on what determines consumers' trust in digital information. Specifically, we observe that trust in online reviews depends on the following:

1. Consideration of positive and negative product's features.

We learn that at this initial information search stage consumers use cues to determine whether reviews are unbiased and not sponsored by brands. One of these cues is review's consideration of positive and negative product's aspects for the same brand (i.e. good engine power but bad stability of a car). Also, the consideration of positive and negative product's or seller's reviews.

On the contrary, consumers don't trust extremely positive or extremely negative reviews as those are perceived as suspicious and not realistic. Finally, we see that participants try to identify patterns (i.e. repetition of features) in what other consumers say in reviews. If there are clear patterns or trends in reviews that evidence a certain level of agreement among reviewers, then participants trust this type of digital information.

For instance, Garret, who is buying a laptop says: *“So I think that checking reviews is important because you find not only the description but also the complaints”*.

Robert, who is buying a car also says: *“First I went to Google, I take short reviews and by repetition you already know that as you see a pattern is because what they say is true”*.

2. Consideration of multiple brands

We find that another cue that consumers take into consideration to adopt and trust an online review at their initial search is the consideration and comparison of multiple brands by the reviewer. This is perceived by consumers as a sign of reviewers' neutrality among brands and as a sign of being a deep and thought review.

On the other hand, when the review or the blog focuses on one single brand consumers distrust that information as they perceive the information as being sponsored by the specific brand.

As Tim, who is buying a motorcycle says: *“They analyzed four completely different brands... and it didn't seem like advertisement but like an honest review”*.

3. The perception of reliability of the source of information

The third cue that we observe in our findings that has influence on consumers' trust is their perception of reliability of the person behind the blog or the review.

Consumers trust in the information on reviews and blogs when the reviewer is perceived as a real consumer and not as a seller (i.e. non-appealing or professional pictures of clothes on the review). Moreover, they trust more on reviews when there are testimonials and detailed descriptions about the

experience of using the product from a user perspective rather than a mere check-list of technical attributes. We observe that consumers prefer reviews with testimonials about the experience with products over reviews that only indicate positive or negative numerical evaluation (i.e. Amazon verified purchase reviews over Amazon stars).

Moreover, we learn that consumers trust in digital information when it is perceived as coming from other consumers as them. For instance, when reading other consumers' experiences if consumers feel identified or similar to the reviewer, then they trust that information.

Finally, we find that participants trust more on digital information when it provides information about extended use of products. During their initial information search participants verbalize that when trying on products during a visit to the store they didn't obtain a realistic perspective. On the other hand, participants state that digital information does provide the experiential perspective from other consumers that actually have used the product and can share their experiences when using it through digital channels.

As Garret says: *"The webs that compare characteristics are OK but they will show only technical data and almost all laptops have the same technology. So I prefer to read the user's experience that for me has much more influence"*.

Moreover, we find that even when consumers have the possibility to visit a physical store, they trust more on reviewers than on sales personnel because reviewers are recognized worldwide and are perceived as more knowledgeable than sales personnel and that the reviewer is able to provide technical information.

Melissa, who is buying a car explains: *"For example on the Internet you will find people who have had the experience and they know and they have tried it but for example if you go to the shop maybe you will find someone who has never got a car"*.

ii) Distrust

On the other hand, participants that search for information at initial stages say that the lack of physical product inspection in digital information sources prevents them of reducing perceived performance risk by engaging in digital information search. Thus, at initial information search when consumers don't trust digital sources for evaluating tangible experience-type attributes they are encouraged to engage in more information search.

For example, when asked about whether she is able to take the risk of purchasing clothes only with digital inspection, Zoe responds: *"With clothing no, especially because I vary in sizes, so I am M or L... And if I am M in bottoms then I am L in tops... So it is very complicated so I can't". While at the store you can see them, try them on and buy them"*.

Moreover, participants state that when they don't trust in digital information at initial information search, they need to visit stores, use key references such as friends, colleagues or relatives or engage in more information search in digital channels in order to continue their search and purchase decision.

As Brian explains, he has been searching in online channels for a laptop. *"I have several days checking at several brands, but I need to check the OS, characteristics and so on because it is an important purchase. So, I plan to ask my friends that have those brands and also my parents"*.

c) Perceived financial risk

Analyzing perceived financial risk, we find that at phase two of initial information search consumers are able to decrease initial financial risk perception by searching for information due to trust in digital channels as well as to the discovery of mechanisms of

financial loss recovery on the web. For instance, many participants find during their initial information search possibilities to recover money through re-selling products on the web.

i) Discovery of mechanisms of financial loss recovery particular to digital channels

We observe in our data that when consumers are searching for information, they consider the possibility to re-sell products in case of regret or dissatisfaction. Participants explain that the digital environment offers more possibilities to re-sell or exchange products than traditional channels as digital channels facilitate peer to peer trade. For instance, many apps and online platforms (i.e. Wallapop, e-bay) bring together individuals that seek to sell and buy products. We find that the possibility to re-sell the product and thus, recover a financial investment decreases financial risk perception and motivates consumers to purchase. During the initial stage of information search consumers reduce perceived financial risk by considering the possibility to recover their financial investments. Moreover, we observe that this risk reduction strategy is more likely to happen in digital environments where, if the possibility to re-sell the product is high (i.e. known and valuable brand) their initial financial and also performance risk perception that deter consumers to purchase are reduced.

As Oliver explains further: *“I always think of re-selling. It’s like my phone that is two years old and I will be selling it for 600 euros... So, I am not that worried about the smartwatch”*.

d) Action plans to reduce perceived performance and financial risk

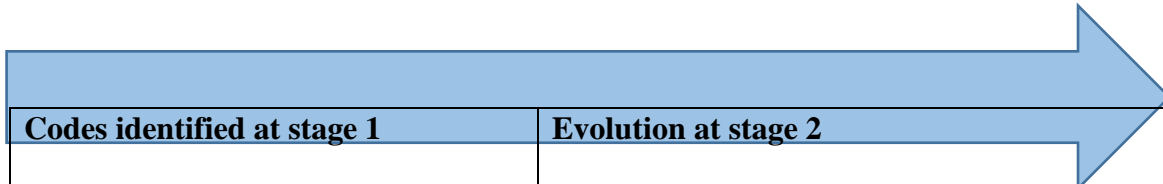
At this stage, we learn that participants plan or take actions in order to engage in more information search when perceived performance risk persists. Thus, as we mention earlier, when consumers don’t trust in the information collected at that point, perceived

performance risk persists and thus, consumers are willing to engage in more information search at stage 2 in order to diminish that persistent risk.

As Rachel who is buying high end garment says: *“if I’m going to shop online I don’t just go right, I need a black pair of jeans and search black jeans I go, I look every single thing, I look at every single jeans”*.

Briefly, we observe that participants engage in information search actions as they move from stage 1 to stage 2. Moreover, as we can see in table 5 consumers’ use of key reference points remains constant in terms of the intensity of use but it’s use becomes more specific (i.e. consumers look for a specific person’s advice due to his or her experience with the product). Moreover, the participants explain that their initial performance risk perception increases when they don’t trust in digital information and when they have the impossibility to visit physical stores but decreases when they trust the digital information. Finally, we observe that perceived financial risk decreases as participants engage in information search and find that there are mechanisms to recover potential financial losses.

Table 5. From Stage 1 to Stage 2



Codes identified at stage 1	Evolution at stage 2
Use of key reference points	Constant. Consumers seek for more specific references
Initial perception of performance risk	<ul style="list-style-type: none"> • Increases when consumers don’t trust in digital information • Decreases when consumers trust in digital information
Initial perception of financial risk	Decreases when consumers search for information and discover mechanism of financial loss recovery

Action plans to reduce perceived performance risk	When perceived performance risk persists consumers engage in additional information search in order to diminish it.
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2) Emerging codes in stage 2

As we mentioned before, we observe that trust in digital information determines how the information that consumers collect during this second stage influences their initial perception of performance and financial risk. Moreover, we find that by considering mechanisms of financial loss recovery consumers decrease initial perception of financial risk. In addition, we see a potential association relationship between perceived financial risk and perceived performance risk.

Thus, three concepts emerge in this second stage of initial information search:

- a) **The role of trust** that we just described in the analysis of Perceived performance risk;
- b) **The discovery of mechanisms of financial loss recovery**; explained in the analysis of financial risk; and
- c) **Potential association relationship between perceived financial risk and perceived performance risk**

Continuing with the analysis of consumers' narratives, we also find that as participants start searching for information, they pay less attention to performance risk perception when financial risk perception is low. In fact, our findings show that when perceived financial risk increases, perceived performance risk seems to increase as well. Thus, we observe a potential association relationship of perceived financial risk to perceived performance risk at initial information search.

As Aaron, a male participant buying a smartphone says: *"I just saw comments on forums and videos on YouTube...but for a mobile I don't want to buy it on the Internet because*

as it is a high amount of money too, as it is important money so I wanted to look at it first, I mean aesthetically and try it and I prefer to buy it in a store than on the Internet”.

Thus, as table 6 shows the emerging codes identified in stage 2 are:

- Trust in digital information;
- Discovery of mechanisms of financial loss recovery particular to digital channels;
- Potential association relationship between perceived financial risk and perceived performance risk

Table 6. Summary of Emerging Concepts at Initial Information Search Stage

Code name	Description	Verbatim quote
Trust in digital information	Consumers’ level of trust on information coming from digital sources that can be positive (trust) or negative (distrust)	<i>“There is a web that analyzes smartphones, and this is the only one where I could get reliable information because there is like an “expert” that is testing products for some days. And he says for instance: “the battery lasts 12 hours speaking through WhatsApp”. Thus, it is really interesting as it helps you know much better a specific mobile” (Mike, male participant purchasing a smartphone)</i>
		<i>“What worries me is that what you see in the digital image looks different then in reality. You know that the reality is different from what you see on the screen because of the type of fabric or that kind of things” (Brian, a male participant purchasing high range sneakers)</i>

Discovery of mechanisms of financial loss recovery particular to digital channels	Consumer's perception of having possibilities to recover money in digital channels (i.e selling the product they plan to buy in case of dissatisfaction)	<i>"If for some reason I don't like it (the choice) anymore I would sell it and buy the other even if I lose a bit of money. But the good thing about these cars is that they don't lose value"</i> (Robert, male participant buying a car)
Potential association relationship between perceived financial risk and perceived performance risk	Potential influence of perceived financial risk in perceived performance risk	<i>"With the computer you have to look at everything very well because these things are much more expensive"</i> (Garret, male participant buying a laptop)

Summarizing what we observe when consumers move from stage 1 to stage 2, we find that consumers prepare for information search creating a scenario to manage further perceived risk and planning their further activities of information search at the beginning of the purchase processes. As they start conducting activities of information search, we learn that they do it using multiple information sources in an interactive manner.

Moreover, we discover consumers' perception of different information channels at the first contact with them and how they use cues to trust or not the information coming from each specific channel.

We observe that during this stage the impossibility to physically inspect experience-type attributes encourages consumers to search for more information in order to reduce performance and financial risk perception. We learn that during the first experiences with information sources, participants perceive performance risk as they learn about positive and

negative product's aspects that in some cases are unknown to them and that they discover at touchpoints during their initial information search.

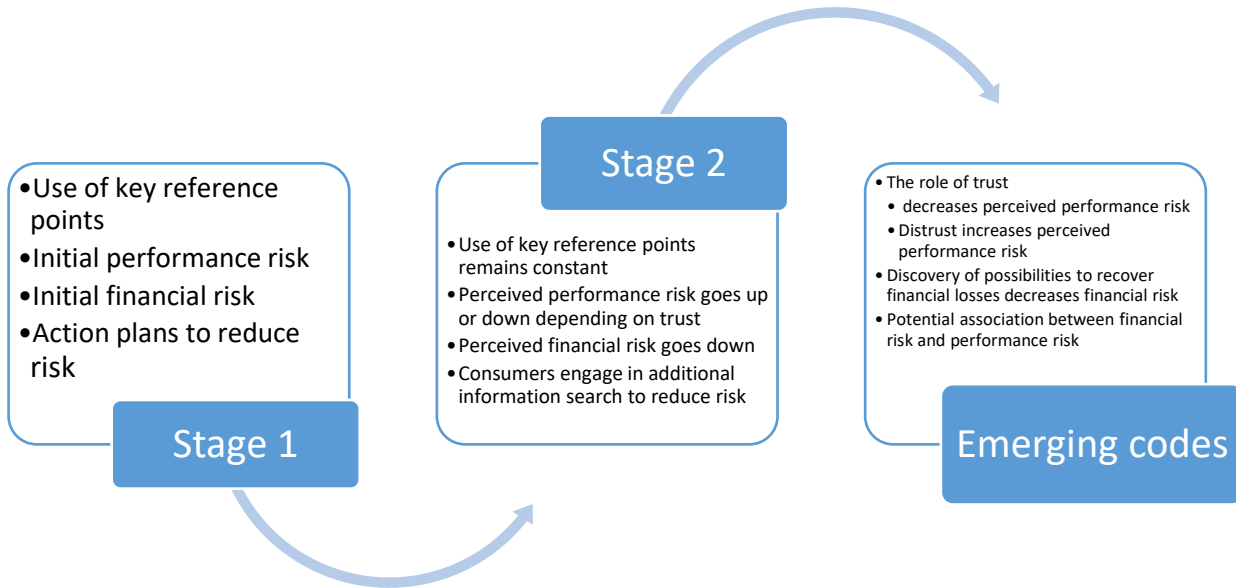
Also, participants perceive financial risk, but we find that they are able to discover in digital channels mechanism of risk reduction.

Thus, we observe how as consumers initiate with information search activities their initial perception of risk is influenced by this information and also, we identify that emerging perception determine the dynamism between information search and perceived risk when consumers search for information in digital and traditional information sources.

Figure 7 illustrates how consumers perceive risks in the first and second stage identified in our data.

As we can see, the information collected at initial information search stage affects the concepts identified in stage 1. Moreover, according to our data this leads to identify emerging codes about consumer's perception regarding to risk.

Figure 7. Dynamic Relationship between Information Search and Perceived Risk from Stage 1 to Stage 2



Stage 2 - Narratives

After preparing for information search, we see consumers starting with their information search activities at stage 2.

Tim at stage 2

Tim started his information search process conducting a search in Google, continuing learning in blogs and then visiting the store: *“I carried on a search in Google and I found a page that was analyzing in a deep manner four 125-type scooters. So, this search has given me an overview about the product I am choosing”*.

Moreover, when asked about which brands, he searched online, Tim responds: *“I searched about Cooltra’s brands. I didn’t search for any other brand because my friend told me about this brand, and she had a good experience with it”*.

Tim continues explaining: *“Then I found a blog called “125 motos”. It is a page that shows when they do drive tests on the street and analyze a product, a scooter or a group of scooters. For instance, in this case there were four of the 125 type with high wheel, the number one sales in the Spanish market. And among these motorcycles was the one that I am considering”*.

After his initial information search at digital channels, and having in mind the advice of his friend, Tim promptly decides to go to the physical store of the brand he is considering: *“So, I read all the reviews and it helped me a lot! And in the end, I cheered up to go and see the product at Cooltra, the company that rents and sells motorcycles”*.

He continues explaining his experience at the physical store: *“When I was there, I started thinking in a more serious way in the sense that I was ready to take a purchase decision. But at that moment they also offered me an option that I was not considering because I didn’t know. It was about buying a brand-new motorcycle of the brand SYM or Peugeot, but instead of paying it in one go, you can pay it in terms of 12, 18 or 24 months”*.

Resenting the lack of physical inspection Tim asserts: *“At the store they offer the possibility to try it and obviously this is something you can’t do by phone... it’s always helpful to speak with people in front of you and see the product right there”*.

Tim also learns about the financial options commitments: *“You have to go there (Cooltra garage) often after certain Kilometers of use to give maintenance to the motorcycle. I made the calculations and it costs around 2,500 Euros”*.

Although Tim has collected some information, he states there are pieces of information he needs to obtain in order to dispel some concerns: *“I want to check if this company sells Peugeot brand because I am not sure. I don’t have this under control, so I was thinking to create also a sheet with the brands they offer and compare them. I mean compare the reviews, my friend’s advice and also, I want to check the prices at official brands’ websites”*.

In terms of trust in online reviews, consumers use different cues to determine whether to trust reviews. Tim articulates that what made him trust in the review he read was the fact that it considered positive and negative product’s features and multiple brands in the same review. *“It was quite reliable because they analyzed positive and negative points... Also, they analyzed four completely different brands. I also checked the homepage and there were other reviews of other brands completely different and it didn’t seem like advertisement but like an honest review”*.

Oliver at stage 2

We find that consumers trust in online reviews when the reviewer is perceived as honest and as someone who can provide a real experience with the product from a consumer perspective. Just like Tim, Oliver who is purchasing a smartwatch comments: *“I look at it in a blog that is called Per Aspera, they always put news and how to use devices. I trust them because they give a user perspective rather than a vendor perspective”*. And he continues: *“I think bloggers know more than a vendor because vendors can have 1 year of experience only vs maybe 10 of a blogger knowing about products”*.

Oliver got interested in smartwatches when these products debuted in the market, but he was not interested in the first brand that launched them. *“Long ago I saw the Pebbles, when they were launched, I found them interesting, but I didn’t like it at a visual level”*.

Moreover, he was aware of new brands emerging into this market, but his budget was limited at that time. *“Then, when Apple launched its watches, I thought they were too expensive. I still believe they are expensive, but the thing is that it is a whim. I find it useful in terms of paying with it here in Spain, for managing lists or “making a shazam” (music identification app) as I don’t have to get the phone out of my pocket”*.

But then Oliver started working and now he is considering buying it. *“At the beginning I considered that it was the first version and I wasn’t working so I didn’t have 500 Euros but now I am working, and I can reach this objective”*.

Thus, Oliver explains he is considering buying the Apple Watch and tells us what his initial steps in terms of information search have been. *“First, I watched the Apple conference where they present new products and then I entered into the Website to have a look”*.

In terms of the reduction of perceived financial risk by the possibility to re-sell the product Oliver asserts that his risk perception is low because he believes the brand is valuable and he can re-sell the product. When asked about whether he considers this purchase a risky one, he responds: *“No, no... Because firstly, the products of this brand last longer in losing value than other companies. I think that if I get it and I don’t like it I won’t lose as much as if I buy another brand”*.

Moreover, in terms of the observed association between perceived financial risk and perceived performance risk, we find that consumers perceive lower levels of performance risk as financial risk perception decreases. When asked about being worried about money Oliver continues: *“I would be worried about other type of products in terms of recovering the investment if I have to change them”*.

Rachel at stage 2

Finally, in terms of engaging in more information search in order to reduce performance risk perception, Rachel who is buying high-end garment for her vacations tells us she loves to search for information at digital sources as she can find more variety of items. However, she recognizes that for experience attributes the information coming from digital sources causes risk perception in terms of the expected product's performance as she can't physically inspect the product. She states: *"With the Bikinis, the top and bottom came in different sizes so you had to choose either extra-extra small, extra small-small ... and then it didn't have different size around here there was only a one size clip and I was like "oh what size would I get" because it's made in neoprene which isn't that elastic it's like a wet suit material..."*

Moreover, she explains how she is managing to deal with perceived performance risk by engaging in more information search at digital sources, given that she is unable to visit the physical store and try on the Bikinis she wants to purchase for her vacations. She continues explaining: *"So, I watched thousands of unboxing videos trying to find a girl that looks like my sort of shape like they say what bra size they have so I know like do I get small, do I get extra-small? So, that's how... They say like OK German I wear a 6, I am a 32. I found someone like that was similar to me, I had like... she bought a small top or an extra-small top and let's say a small bottom they try on and you can see that if it fits them right and you can kind of match up more or less if your body is the same size, so in that sense it was really useful. Really, really, really useful".*

Rachel has been looking for high-end summer garments as she is planning to go with her family for vacations. She is a novelty seeker consumer and she loves to purchase on the Internet. So far, she has been searching on brand's apps and YouTube videos and she is not expecting to physical inspect the product as there is no physical store of the brand where she lives.

Table 7. Summary of Stage 2 – Narratives

Stage 2 narratives	Tim	Oliver	Rachel
	<ul style="list-style-type: none"> • Conducts active information search at digital channels and then at traditional channels • Perceives performance risk after obtaining information at both digital and traditional information sources • Talks about how he trusts on digital information when reviews compare different brands 	<ul style="list-style-type: none"> • Shows his trust in renown online reviewers • Uses perceived financial risk reduction strategies particular to digital channels • Shows how by decreasing financial risk perception, performance risk perception decreases as well 	<ul style="list-style-type: none"> • From searching for information in online channels she perceives performance risk • Thus, she decides to engage in more information search in digital information sources

Concluding, we find that as consumers start conducting search activities, they acquire a clearer picture of the risks that their purchase processes entail and contrast their initial expectations at preparation for information search with real information acquired from their initial search. From our findings it appears that consumers engage in initial information search in order to decrease performance risk perception, they do this in an interactive manner switching between traditional and digital sources. We observe that when searching for information in digital channels consumers use cues to trust that information. For instance, we

find that consumers trust online reviews when they contemplate positive and negative product aspects and when the source of information is perceived as non-biased and experienced with the product.

However, we observe that when there is an impossibility to physically inspect a product, consumers are encouraged to engage in more information search and that this intensifies as perceived financial risk increases. Finally, we learn that the discovery of money recovery options such as digital trade, decreases financial risk perception and encourages purchase.

In the following section we address how consumers continue with their information search process and what is the result of engaging in more information search at advanced stage of information search.

5.4 Stage 3: Advanced information search

Content

Stage 3. Advanced information search
<p>1) Evolution of codes from stage 2 to stage 3</p> <ul style="list-style-type: none"> a. Use of key reference points b. Perceived performance risk <ul style="list-style-type: none"> i. Trust c. Perceived Financial risk <ul style="list-style-type: none"> i. Discovery of mechanisms of financial loss recovery particular to digital channels d. Potential association between perceived financial risk and perceived performance risk e. Action plans to reduce perceived financial and performance risk
Table 8. From stage 2 to stage 3 (evolution of codes)
<p>2) Emerging codes in stage 3</p> <p>Table 9. Summary of emerging codes identified at advanced information search stage</p> <ul style="list-style-type: none"> a. Emerging perceived risk of fraud b. Emerging perceived risk of product loss or damage c. Emerging perceived risk of not using the product d. Emerging perceived risk of returns e. Initial social risk perception and its relationship with cognitive effort perception <ul style="list-style-type: none"> i. Perceived social risk and increased cognitive effort ii. Higher consumer responsibility of purchase outcomes iii. Higher pressure from peers to share purchase decisions and higher standards on consumers' image in public profiles
Figure 8. Dynamic relationship between information search and perceived risk from stage 2 to stage 3
<p>Narratives:</p> <ul style="list-style-type: none"> Rachel at stage 3 Tim at stage 3 Oliver at stage 3
Table 10. Summary of Stage 3 - Narratives

Our data show that consumers advance in the process of information search by planning their strategies to mitigate initial perception of risk at the first stage of preparation. Then, we observe that our participants collect information that affects these initial risks perception in different ways. For instance, we see cases among the participants in which they decrease their initial perception of financial risk by searching for information.

At the second stage, in addition to observing how information search activities affect the initial concepts coded at stage 1 we also see that new concepts (i.e. consumers' perception or behavior) emerge and that they have a role in how consumers advance from stage 1 to stage 2 (i.e. the role of trust in information sources). Moreover, from our findings it seems that consumers are using multiple channels for information search and that the information search activities are done in an interactive manner.

In stage 3 we find that risk perception and information search activities affect how consumers advance from stage 2 to stage 3. In this section we follow our path of presenting the results by first describing how the codes identified in stage 1 and stage 2 behave in this third stage. Then, we highlight consumers' perception and behavior that shape the manner in which these concepts evolve in stage 3. Finally, we disclose and code the other emerging concepts that are identified in stage 3.

1) Evolution of codes from stage 2 to stage 3

Looking at our findings in stage 1 and 2 we learned that at stage 2 of initial information search whether consumers decrease initial performance risk perception depends on how they trust the information they collect during initial information search. Moreover, initial perception of financial risk was reduced when consumers considered alternatives of financial loss recovery in digital channels. Also, we observe that the use of key reference points remained constant at stage 2 and there are signs of a potential association between perceived financial risk and perceived performance risk.

At stage 3, from our findings it appears that consumers conduct an analysis of the information collected in stage 2. In many cases, the information search activity is motivated by their risk

perception. Moreover, we find that during this period of reflection, participants contrast the information with their expectations, beliefs and perceptions. Also, we see that the participants perceive new types of perceived risks particular to digital information during this third stage as a result of their information search activity and their analysis of the information collected at that time.

Following up the concepts identified in stage 1 and 2 we find the following at stage 3:

a) Use of key reference points

At stage 3 we observe that the participants use key reference points when their perception of performance risk remain or increase. We discuss how and why performance risk perception increases or persists at stage 3 later in the section of emerging codes.

Participants state that when they perceive risk at this point in the process, having found lots of information, they resort to ask people around them (i.e. friends, colleagues) in order to manage the information with more confidence and take decisions. Moreover, we observe that at this stage the information coming from key reference points becomes more relevant for our participants than in stage 1 and 2 and more specific when we compare it with its use in stage 1.

As Tim, our participant buying a motorcycle says: *“I trust more my friends than any other stranger”*. And when ask about why, he continues saying: *“Yes, because I am more attracted to the idea that my friend is supposed to be a reliable person and that I will not be fooled by him regarding the issue of having always been checking it (the motorcycle), changing the oil, etc...”*.

Thus, from our findings it appears that the use of key reference points is intense when consumers have collected information but nevertheless, they are still perceiving risk.

b) Perceived performance risk

We learn that the participants increase their initial performance risk perception when they don't trust digital information sources in stage 2. Moreover, they state that given their increased performance risk perception, they are motivated to search for more information at advanced information search stage. We observe that as a result of this search activity our participants perceive new types of perceived risks emerge that now gets their attention and that deters them to advance in their purchasing process. The emerging types of perceived risk that we identify and that causes an increase in perceived performance risk in this third stage are: a) *the emerging perceived risk of fraud* and b) *the emerging perceived risk of product loss or damage*. We elaborate more on these emerging types of perceived risks in the emerging codes section.

i) Trust

We learn from our participants' experiences that when they don't trust in digital information their initial perception of performance risk increase. At stage 3 of advanced information search we see that when consumers don't trust in digital information at initial information search, they engage in further search activities that sometimes results in a deterioration of trust. It appears that the new information obtained leads to the emergence of the new types of perceived risk that we just mentioned that causes that consumers increase their perception of risk and their lack of trust in digital sources.

Thus, our findings suggest that as a result of information search consumers become aware of untrustworthy information and untrustworthy sources that make them trust less in digital information at this phase of the process of information search. Thus, the emergence of new types of perceived risk causes an increase in perceived performance risk as well as a deterioration of trust in digital information.

As Oliver, who is buying a smartwatch mentions: *"I think the important thing is to contrast information, if in Amazon there is only one review, I do not decide to buy it.*

I need to see someone else who says something good. And if everything is good, I just do not trust it because then I think there is something... that there is someone writing on behalf of the brand”.

c) Perceived Financial risk

Participants’ experiences reflect that in the case that they engage in more information search due to a lack of trust in digital information, their perception of financial risk can increase in this third stage. We derive this conclusion as we observe that consumers are concerned about facing financial losses from product loss or from fraud. Moreover, this gives rise to the emergence of new types of perceived risk related with financial losses. These new types of perceived risk are a) *the emerging perceived risk of not using the product* and b) *the emerging perceived risk of returns*. We deepen into these new codes later in the emerging codes section.

Thus, we observe that the emerging types of perceived risk that consumers perceive at advanced information search surge and are related with participants’ concern of losing financial resources as a consequence of conducting a purchase action.

Mike, who is purchasing a smartphone illustrates how lack of trust increases his financial risk perception. He mentions: *“Oh no no no, for the price no, I prefer to buy from Amazon than from a random Chinese website. You don’t know what to expect”.*

i) Discovery of mechanisms of financial loss recovery particular to digital channels

Regarding the discovery of financial loss recovery mechanisms, we observe that our participants consider the possibilities to recover a financial loss at the initial information search as a manner to reduce perceived financial risk. However, when they are at advanced information search stage and there is lack of trust in digital information sources consumers seem to not consider these possibilities to reduce

financial risk perception as they don't trust in the information. Thus, they perceive this information as not real alternatives. In fact, when the participants were not trusting digital information, they didn't think of financial loss recovery.

Therefore, the perception of not having real possibilities to recover financial losses deters consumers to advance in their purchase process due to financial risk perception.

For instance, Tim mentions: *"For this type of product (motorcycle) I trust more traditional channels... because of the issue of the product's value"*.

d) Potential association between perceived financial risk and perceived performance risk

Our study shows that consumers' perception of financial risk affects their perception of performance risk just as they do it in the previous stage. From our findings it seems that given the emerging types of perceived risk particular to digital environments and the lack of trust in digital information sources in some cases, consumers are concerned about facing financial losses and not getting what they expect in term of product quality. Thus, we observe that the potential association relationship between perceived financial risk and perceived performance risk is constant and consistent in stage 3 of advanced information search.

For instance, when asked about what makes him trust on a review, Robert responds: *"I take short reviews and by repetition. You know that when you see a pattern is true... The problem with cars is that it is like a mobile phone. But the price of a mobile is 700€ But for example, a car is 20,000 - 30,000€ so if it goes wrong, it is not the same"*.

e) Action plans to reduce perceived financial and performance risk

What we observe in our study is that participants think of searching for more information but from a more selected sources in order to advance in the purchasing process. Participants verbalize that what they plan to do is to use key reference points to search for specific information.

For instance, Rachel affirms: *“Before I buy something, I send pictures of the products and ask her (her friend) what do you prefer?”*

Summarizing, we observe that participants move from stage 2 to stage 3 analyzing the information collected during the first two stages in terms of their personal beliefs and experiences. While we find that participants are able to decrease performance and financial risk perception by searching for information at stage 2, we see that in the cases that they don't trust the information risk perception can't be reduced. Thus, in stage 3 participants are motivated to search for more information in order to decrease those persistent risks. One of the most prominent information sources that we observe in our study is the use of key reference points. We see that our participants ask their close ones when perceived performance risk remains at stage 3 and the manner in which consumers use these key reference points seems more specific. (i.e. asking a person who owns the same type of product or brand). Moreover, we see that when perceived performance risk persists due to a lack of trust, participants engage in additional information search that in some cases results in emerging types of perceived risk perception particular to digital environments.

In addition, from our study it appears that unlike in stage 2 when consumers were able to decrease perceived financial risk by searching for information, in stage 3 the additional information search doesn't contribute to this reduction due to the lack of trust in digital information. In fact, we see that the potential association relationship remains constant at stage 3.

Thus, instead of observing a reduction of perceived performance risk and perceived financial risk by means of information search, we see that in the case of lack of trust in digital information, the reduction in risk and advancement in the purchasing process is not possible. Table 8 illustrates how the codes identified in stage 1 and stage 2 evolves at stage 3.

Table 8. From Stage 2 to Stage 3

Codes identified at stage 1	Evolution at stage 2	Evolution at stage 3
Use of key reference points	Constant. Consumers seek for more specific references	Increases. In the case of persistence of perceived performance and financial risk due to lack of trust in digital information increases and becomes more specific
Initial perception of performance risk	<ul style="list-style-type: none"> • Increases when consumers don't trust in digital information • Decreases when consumers trust in digital information 	Constant. Causes additional information search that can result in emerging types of perceived risk
Initial perception of financial risk	Decreases when consumers discover mechanism of financial loss recovery	Increases as a result of emerging types of perceived risk
Action plans to reduce perceived financial and performance risk	When perceived performance risk persists consumers engage in additional information search in order to diminish it	Search for more information but at selected sources

2) Emerging codes in stage 3

We observe that perceived performance and financial risk persist in stage 3 when consumers don't trust in the information collected at this point. Moreover, looking at participants'

experiences it appears that when performance and financial risk perception remains at this point, participants engage in additional information search in order to manage that risk. However, we find that participants perceive emerging types of perceived risk from this information search activities that are particular to digital environments.

We code consumers’ perception of their contact at different information sources in the following codes:

- Emerging perceived risk of fraud
- Emerging perceived risk of product loss or damage
- Emerging perceived risk of not using the product
- Emerging perceived risk of returns
- Initial social risk perception and its relationship with cognitive effort perception

Table 9 details the identified first order codes that surge in stage 3 with the description and a verbatim quote.

Table 9. Summary of Emerging Codes Identified at Advanced Information Search Stage

Code name	Description	Verbatim quote
Emerging perceived risk of fraud	Perceived risk related with trusting false, biased and/or dishonest information that can lead consumers to being cheated or scammed by someone	“...because I didn’t want that a blog sells me like “everything is good! Everything is good!” It’s like a car magazine that says that everything is perfect and that it barely consumes gasoline and then you go for it and ... BAM! (Mike, male participant buying a smartphone)

Emerging perceived risk of product loss or damage	Perceived risk related to the possibility to lose or damage the product in the future	<i>“In Barcelona cars get scratched, they scratch it with a key when they see a brand-new car, So... Although having insurance, if the car gets scratched you must take it to have it fixed. And this is every time the car gets scratched. Then when they fix it, it takes days. It's not that they fix it right away. (Paul, male participant buying a brand-new car)</i>
Emerging perceived risk of not using the product (product redundancy)	Perceived risk related to the possibility of not exploit the product and thus, waste resources	<i>“I think it's more like a personal fear. I always wanted this but I'm not the best photographer. I enjoy it (photography) and I think I developed an eye but I do not dedicate myself to this. I was afraid of having made such an expense to put it in a drawer in my closet in the end” (Zoe, female participant buying a digital camera)</i>
Emerging perceived risk of returns	Risk of spending resources (i.e. time, effort, money) in engaging in return activities after purchase	<i>“I don't buy online because I am too lazy of waiting to receive it at home, sending it back. What makes me feel lazier is to return it and then check that they have sent the money back accordingly and then search for another option and go back and forth...Ostia! (Spanish expression of “too much”) even sometimes I have bought a book online and I suffer though” (Ed, male participant buying a laptop)</i>

Initial social risk perception and its relationship with cognitive effort perception	Initial perception of social risk and consumers perception of increased cognitive effort as a result of perceived social risk	<i>“I think that what others think influences my purchase decision. I think we live in a world where what you see at the first moment creates a profile of a person or a company. So, I will search for a sophisticated and beautiful PC, for the moment I will open my Architecture Office. I will do my best for the image...”</i> (Craig, male participant buying a desktop computer)
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As table 9 describes, emerging types of risk are perceived by consumers at stage 3.

a) Emerging perceived risk of fraud

Specifically, we find that as participants learn more about products at digital channels they get concerned about being cheated by trusting biased or dishonest reviews or being scammed by false websites. These consumers recognize that they are aware of the existence of unreal information, sponsored and biased reviews and information generated by brand-fanatic users on the web. Thus, we find that at advanced information search participants engage in additional information search on the web in order to filter out fake or biased reviews from honest ones. These consumers use to search for more information in order to contrast information from different sources, identify patterns, ask their key reference points and use cues in order to identify and trust true information and discard misleading information.

Similarly, participants state that they perceive risks related with being scammed when they find a website that is unknown to them. Participants assert that they are aware of

unreal and fraudulent sites and thus are concerned about being scammed by these sites. In this case we also observe that participants engage in more information search but in this condition, we observe a preference for the use of key reference points (i.e. asking friends) over reading unknown people's opinions. Moreover, we learn that participants use cues to identify dishonest sites. Thus, when found, these types of risks increase (i.e. extremely low prices) that raises suspicions around the seller.

For example, Daniel who is purchasing a laptop says: *"I got together with my sister's boyfriend because he knows a lot about laptops, and he knows how not to be cheated by these pages. He has experience; thus, I think it is always better to trust someone who has more experience than you"*

b) Emerging perceived risk of product loss or damage

Another emerging type of perceived risk that we observe at advanced information search is a risk related with product loss. At this stage, participants verbalize their concern about products from a long-term perspective in relation to future events that can occur to the product. For instance, they state that at the moment of information search their consideration of being stolen or that the product could be damaged shape their current decisions and information search patterns. In fact, at the moment of information search we observe that these consumers get informed about warranties and insurances as these factors are taken into account for the purchase of products of high to moderate involvement for these consumers. We learn that participants take into account the probabilities that the product could be stolen or damaged (i.e. leaving a laptop in the University, parking the car on the street). Thus, they consider these possible future events when searching for information and choosing among ranges of prices and brands.

As Craig mentions: *"The new one (laptop) I wouldn't leave it at the university lockers... never, never"*.

c) Emerging perceived risk of not using the product

On the other hand, we find that as participants learn about products and brands and advance in their information search process they tend to think more seriously about their future with the product. The study participants state that at some point after having experienced many touchpoints, they reflect about their purchase decisions and get concerned about the utility they expect to obtain through purchase. We identify this type of risk and code it as *risk of not using the product*. This risk perception reflects consumers' concern about not maximizing the utility of the product. Participants explain that they perceive a risk of wasting resources (i.e. time, money) and also of regretting of buying a product if they don't use it or get the expected benefits from the product. Moreover, they state that they fear to unnecessarily lose money if they purchase additional products in order to take advantage of free delivery service or to invest in a product that they will not use as expected in the end. Thus, the participants perceive they can regret after purchase and this represents to them a new type of risk that is perceived during the purchase decision-making process.

As Paul comments: *"While we were having the interview it came to my mind. If I work 4 hours in the afternoon and I study 4 hours in the morning, when will I take this car? Weekends? So, does buying this car pays off?"*

d) Emerging perceived risk of returns

Finally, we find another emerging type of perceived risk identified at advanced information search that is the *risk of returning products*. We find that participants search for information about returns during information search but although having the opportunity to return items in case of regret or dissatisfaction, participants avoid investing resources (i.e. effort, time or money) in order to return products. In fact, we find that consumers are able to decrease perceived financial and performance risk by considering the possibility of returns, however we see that consumers avoid engaging in them. Thus,

we find that in order to avoid engaging in return activities consumers seek to maximize the accuracy of choice by searching for information.

As Ben explains: *“When it's time to buy online, especially clothes I think about it much more, especially in clothes. Because of course, it is not the same to see it on a screen than to see it in person. Seeing it on (laughs) is another world ... Then the size, if the size does not work, you have to return it...”*

e) Initial social risk perception and its relationship with cognitive effort perception

In addition to the emerging codes that affect consumers' perception identified in the previous stages, we find that participants perceived social risk at this moment in the process of information search. The consumers that were interviewed show perception of social risk from the stage of advanced information search. They state at advanced information search stage that they perceive higher social risk in digital contexts due to the fact that their decisions are more exposed whether voluntarily or involuntarily on the web as they search for information. Analyzing all the data we disclose that the manner in which social risk increases during advanced information search in digital contexts is explained through a cognitive effort path that we describe as follows:

i) Perceived social risk and increased cognitive effort

We find that participants perceive higher social risk in digital contexts because as they verbalize, there is high psychological pressure on the outcome of their purchase decisions in digital environments. Going in depth we find that this is due to the following reasons:

1. Higher consumer responsibility of purchase outcomes

At advanced information search participants perceive that in digital contexts all the responsibility of the purchase decision outcomes lies on the individual

consumer. Participants state that given the fact that there is higher autonomy and no sales personnel intervention, the responsibility of purchase outcomes is higher and funneled to the individual consumer in this context. For instance, participants comment that they can't blame a salesperson or the store in case of product's dissatisfaction in digital information search. Moreover, given this consumer's independence in digital information search the need to justify not only the purchase outcome but also the ability of the shopper to take good purchase decisions seems increase in digital contexts.

Moreover, we find that participants perceive peer pressure on themselves and their purchase decisions because there are higher expectations from peers on the purchase outcomes in digital contexts due to high availability of information in digital channels.

Therefore, given the peer pressure on buyers' ability and purchase outcomes, participants affirm that with the availability of digital information the need to take good purchase decisions makes them put a lot of cognitive effort in searching purchase-related information. Thus, participants' perception of cognitive effort in digital channel is high given the high perception of social risk that their decision-making is causing. In other words, information search in digital context increases social risk because consumers have to select the best choice as it is viewed and judged by others. Moreover, cognitive effort perception intensifies as consumers advance in information search, thus at advanced information search their perception of social risk and cognitive effort is prominent.

As Oliver mentions: *"I think digital channels are very good, but you have to search for all the information and that requires effort"*

2. Higher pressure from peers to share purchase decisions and higher standards on consumer's image in public profiles

Also, our results show that nowadays consumers of the digital natives are used to share their purchase decisions with friends, colleagues and family due to the ease of sharing digital content. It seems that is socially accepted that consumers share in private (i.e. private message) or public (i.e. Facebook post) manner their experiences when purchasing. We find that during digital information search participants perceive higher social risk as their purchase decisions will be shared with others.

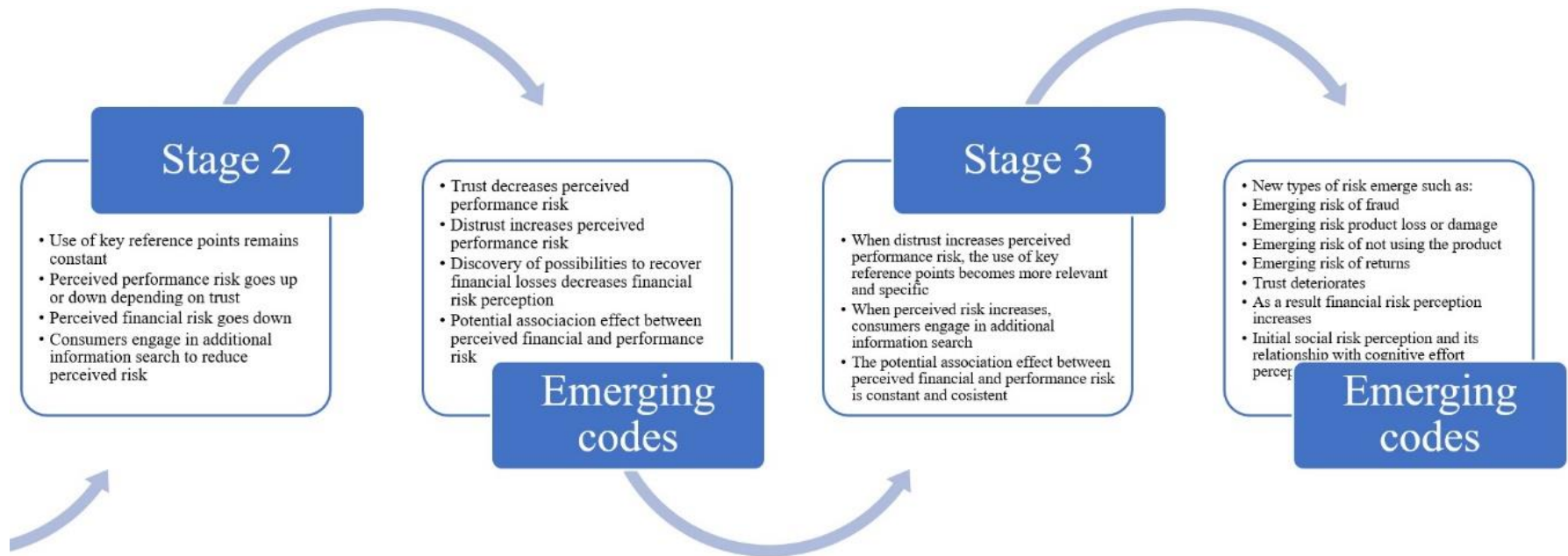
Finally, although consumers are independent decision takers, they take care about their image and what they share in social media and other digital channels. Participants affirm that they have an image to take care of and they give importance to what others think about them. For instance, potential clients or employers, friends, partners etc. Moreover, participants believe that their purchase decisions reflect their image thus, they are influenced by social norms and prestige among groups of consumers.

As Amelia, a female participant buying shoes says: *“I send my friends a picture... saying I have these three.... I send the picture from my mobile directly, I send it through WhatsApp and that’s it”*.

Concluding, we find that at advanced stages of information search participants analyze the information they have collected, and they contrast it with their previous reference points and personal traits. Moreover, we learn that as a result of information search some new types of perceived risk emerge that are particular to digital channels. Finally, participants’ stories evidence that social risk perception has a significant role on the manner in which they search for information. We find that as participants move forward in the information search process their perception of social risk encourages them to put more effort in order to make a good choice that satisfies consumers themselves as well as their peers.

Figure 8 summarizes the manner in which the perception and actions of participants evolve as they advance in the process of information search.

Figure 8. Dynamic Relationship between Information Search and Perceived Risk from Stage 2 to Stage 3



Stage 3 - Narratives

Participants' narratives show an advance in their information search processes that is characterized by the weakening of initial risks perception but the emergence of new types of perceived risk. Moreover, participants verbalize that at this point in the process they stop and analyze the information they have collected.

Rachel at stage 3

Rachel advances in her information search process of high-end garment for her vacations by visiting different websites, looking at YouTube's unboxing videos, searching at the fashion store's app she has installed in her mobile and also talking with her friends about her purchasing plans. However, she explains that at some point in the process she had to stop and think about the information she has found.

Referring to her experiences of reading reviews, Rachel affirms: *“What worries me is that quite a lot (reviews) are sponsored and you don't know it. Usually companies are sending them (reviewers) their products and they talk about them positively. So, I think that's why I watched so many videos because I wanted to filter out or at least get a more or less accurate opinion because some of them are sponsored are really biased. And yeah, it's hard.”*

Moreover, Rachel discovered that in addition to biased reviews there are possibilities of engaging in online purchase with dishonest sites. She recognizes: *“I found a random website and it claimed that it was from China but all the products looked amazing, but the prices were so cheap. So, I was like: what on earth is this? How does this even exist?”*

Also, she analyzes the information, search for more reviews and use cues that concerns her of being scammed. She adds: *“Watching these videos I saw that some of them were claiming it and they were actually saying good things and other ones were saying “ooh*

it's a scam, it takes weeks and weeks for the products to arrive" and I was just not going to take that risk, it looked so sketchy".

In terms of risk of not using the product in the end Rachel says: *"I think that when we buy in digital channels there's also a lot of wastage in terms of buying things that we don't really need".*

Tim at stage 3

Continuing with his purchasing process, Tim also thinks about his purchase and the information he has collected so far and recognizes that at this moment in his life he is inclined towards buying a second-hand motorcycle. He also considers the risk of product damage or loss. He says: *“Right now I’m a bit more oriented towards buying the second hand bike because I have to leave it on the street so obviously leaving a brand-new motorcycle on the street entails that firstly it will get damaged more quickly; Rain, wind, atmospheric things... Secondly, it’s riskier because someone can steal it”*.

Tim continues: *“Instead, a second-hand motorcycle... you don’t care much if it deteriorates a bit more because you don’t see it as it already has some scratches and such... And in return it looks less attractive to anyone who steals or wants to steal it”*.

Also Tim shares with us: *“Let’s say I am fortunate person because I live in a neighborhood that is not too dangerous from standpoint and I can leave it outside. I live near a police station and I can also take advantage of it and leave it at the front of the station... but come on, generally is easier to leave on the street a second hand bike than a brand-new motorcycle. Then of course, the fact that it is second-hand is an important factor of my choice right now”*.

Oliver at stage 3

On the other hand, Oliver continues his journey to purchase the Apple Watch. In terms of social risk Oliver believes he is doing a lot of effort in order to choose the best option from his desired smartwatch and this has to be with social risk. Oliver is convinced since the beginning of the information search process that he wants the Apple Watch. However, there are product specifications that are not clear for him yet.

He explains: *“There are different screen sizes, in fact there are two sizes for men and then there are several colors”*. And he continues: *“Moreover, you can change the watchbands so the options increase in an exponential way ...”*

Moreover, he states that choosing among these characteristics are more important as this is a product that is visible to everyone. He affirms: *“With this product the thing is that you have to match (i.e. with clothes)”*.

And he recognizes he asks friends about these product characteristics as he trusts their opinion and they can help him make the best decision. When asked about whether he asks close friend Oliver responds: *“Well I asked mainly to choose the model and the color. Thus, I asked my friends, my girlfriend and some relatives which one they like the most”*.

He continues explaining why he asked his close friends: *“I asked about aesthetics, because I am buying the one in aluminum which has many colors and I asked my friends because I am not a fashion expert”*. And also: *“I like to ask them because maybe there is something I don’t take into account, something important. For instance, when I asked my friends, they told me something really true which is that the golden one is very beautiful but is really hard to match”*.

Finally, Oliver decides to visit the iconic Apple Store in the center of Barcelona. Oliver says: *“Then I went to the store and they had it, so I tried it on”*. Before visiting the store, Oliver had watched the presentation of the product, read some blogs and surf into the brand’s website. Moreover, after trying on the smartwatch he was clearer on which screen size is the one he likes the most. He asserts: *“So what I basically did at the store was to*

try it on and I could see it directly in my wrist”. And he adds: “And after visiting the store I decided I was going to buy it”.

In terms of social risk, we find that consumers perceive higher social risk in digital environments and in order to reduce that risk they search for more information. Oliver assesses his experience during the process of information search so far in the following way: *“The process between the moment I saw the advertisement and now that I am deciding to buy has been longer than with other products”.* When asked about why he responds: *“Because this is a new product type for me... I have discovered the value of the product along the process to decide whether to buy it or not and it has entailed more work for me”.*

When asked to elaborate more on this he explains: *“The thing is that with these digital information sources I think you can take, maybe, a better decision regarding finding the product that satisfies your needs but it makes us work much more”.* *“I mean, the work that was associated to a sales-man before (At the store helping you chose among brands) now they have delegated to people”.*

Finally, he adds: *“Thus, for people who use more the digital world is an extra cost in terms of the level of effort. It is actually an effort because if you don’t search much and you make a mistake buying the wrong product you have to justify that product in front of your peers and also justify how good shopper you are and yourself. You have to feel good with your purchase decisions. So, I think it carries an extra mental load on people who buy now”*

Table 10. Summary of Stage 3 –Narratives

Stage 3	Rachel	Tim	Oliver
narratives	<ul style="list-style-type: none"> • Collects lots of information regarding the product and feels the need to evaluate 	<ul style="list-style-type: none"> • Seems to have framed his consideration set after having analyzed 	<ul style="list-style-type: none"> • Perceives an increase in social risk perception. He recognizes that he is making

	<p>all that digital information</p> <ul style="list-style-type: none"> • Perceives a net type of risk related to <i>sponsored reviews</i> and related with <i>fake sites on the web</i> or <i>being scammed</i> • She also perceives <i>risk of not using the product in the end</i> 	<p>information collected at digital and traditional information sources</p> <ul style="list-style-type: none"> • He perceives the type of risk of <i>product loss or damage</i> 	<p>an effort in searching to reduce social risk</p> <ul style="list-style-type: none"> • Uses key reference points (that he trusts) to reduce social risk perception that is related with performance (appearance) risk perception • Engages in information search at a physical store in order to continue reducing performance and social risk perception
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So far, we learn that consumers start information search experiencing a phase of preparation for information search and a phase of initial information search that entails conducting activities of information search at traditional and digital information sources. Continuing the process of information search, consumers reach an advanced level of information search where they analyze the information collected so far. Although some risk types diminish by engaging in information search at initial information search, some new types of perceived risk emerge and thus consumers engage in additional information search in this stage.

Therefore, we observe that the process of information search becomes cyclic as consumers switch channels and seek at different information as they advance in information search process. In fact, as they collect information, they stop searching for some type of information but engage in other types of information search. We also learn that at this moment, the manner in which perceived risk shapes purchase decisions is evidenced as consumers deal with risk by discarding initial options in the consideration set and start considering new alternatives in some cases. Also, in other cases, the process of information search reaffirms their initial options in the consideration set. Thus, we observe an influence of perceived risk on purchase decisions.

In the following stage we analyze how consumers start being clearer about purchase decisions and thus start preparing for purchase decision. Moreover, we see the role of risk in decision-making.

5.5 Stage 4: Preparing for purchase decision

Content

Stage 4: Preparing for purchase decision
1) Evolution of codes from stage 3 to stage 4 <ul style="list-style-type: none"> a. Use of key reference points b. Perceived performance risk c. Perceived financial risk d. Trust e. Perceived social risk f. Action plans to reduce perceived financial and performance risk
Table 11. From stage 3 to stage 4 (evolution of codes)
2) Emerging codes in stage 4 <p>Table 12. Summary of emerging codes identified at preparation for purchase decision stage</p> <ul style="list-style-type: none"> a. Acceptance and conviction b. Fatigue c. Discovery of financing options d. Hedonic value
Figure 9. Dynamic relationship between information search and perceived risk from stage 3 to stage 4
Narratives <ul style="list-style-type: none"> Monica at stage 4 Tim at stage 4 Monica at stage 4 part II <p>Table 13. Summary of Stage 4 - Narratives</p>

As we have described in stage 1, in stage 2, we found that consumers advance in information search process experiencing a series of stages such as preparation for information search when they prepare for their journey and create expectations about it in terms of brands to be considered, retailers and channels to search for information. Then, we found that they engage in activities of information search when they are able to face real information that are contrasted with their expectations created at preparation for information search. As participants advance in the process, they are able to decrease some types of risk, however

new types of perceived risk emerge. Thus, in stage 3, participants at advanced information search dealt with these risks and at this point we identify that they behave in a way that indicates that they start directing towards a final decision.

As participants advance in their information search processes, they search for information and then analyze all the information regarding the options in their consideration set. Participants' narratives show that as the process of information search provides consumers with lots of information and they analyze many options in terms of products and sellers, they start showing the need to take a final decision as the time passes.

Moreover, we observe in the narratives that participants' behavior at this stage is still being influenced by risk perception. Also, we identify participants' attitudes or turning points at an advanced moment in the life course of the process of information search that show their need to take actions and shape their decisions. These actions appear to be targeted to reduce different types of risk when it is possible for consumers (i.e. increasing their budget to reduce perceived performance risk, accept a lower level of product quality in order to decrease perceived financial risk).

On the other hand, we observe that participants assume or make the best with the options in their consideration set and the risks entailed on them at an acceptable level in order to finally take purchase decisions.

1) Evolution of codes from stage 3 to stage 4

In stage 3 we observe that as consumers engage in information search in order to decrease financial and performance risk perception, new types of perceived risk emerge. These new types of perceived risks were found to emerge as a result of new information that alerts consumers of possible fraud or new product attributes to take into account that they were not considering since the beginning of the search process. Moreover, in stage 3, participants show their initial perception of social risk and how they plan to manage it.

Following up participants' stories, we observe that at stage 4 consumers search and use specific information to decrease persistent types of risk perception and advance in their

search process heading towards a final purchase decision. Specifically, we observe changes in:

a) Use of key reference points

Participants' narratives show that at stage 3 when participants need to take purchase decisions and perceived financial risk and perceived performance risk remain deterring them to make a choice, participants make use of close friends' advice. In fact, we observe that through the entire search process participants use references from friends and search for information asking friends, relatives or colleagues. However, at stage 4 of preparation for purchase decision, we observe that trust in close friends intensifies more as consumers cumulate fatigue given the amount of information on the web they have evaluated, and the effort invested in filtering out unreliable information from reliable information at stage 3. In fact, the participants state that given that their risk perception persists, they trust more on the information from friends than on information from the web at this stage.

Participants show that information from friends is easy to obtain through digital channels which reduce the cognitive effort consumers invest in information search. Moreover, digital sources enhance communication among friends and family as they reduce the cost of communications and geographical boundaries. Thus, participants reduce financial and performance risk perception at preparation for purchase decision by using information coming from friends' advice and experiences with product and brands in order to take a purchase decision. In fact, at this fourth stage trust in key reference points increases and is used as a strategy to shape their final purchase decision.

For instance, Sarah, a female participant buying a car states: *“So we chose that car because it was from a friend and he is trustworthy, he knew everything about the car, if it had a problem or if something needed to be changed or whatever...”*

b) Perceived performance risk

As we learn in stage 3 consumers engage in more information search in order to decrease perceived performance risk. However, we observe that as a result of this additional information new types of perceived risk particular to digital environments emerge. At stage 4 what we observe is that consumers reduce the emerging types of perceived risk by using key reference points, such as asking friends about sellers, brands or products. Moreover, from our data it seems that also consumers reach a state when they assume acceptable levels of risk by accepting the options and purchase conditions that they have learned about during information search.

Moreover, participants show that at this stage 4 they attain a level of conviction and also decide to take the decision to stop their effort and fatigue caused by engaging in information search. Thus, we see that perceived performance risk is reduced to an acceptable level as trust in key reference points and its use increase. Also, as a result of consumers' acceptance, conviction and fatigue at this stage of the process.

In addition, we find that the emerging types of perceived risk of fraud and risk of product loss were also diminished mainly by the use of key reference points.

Zoe, a female participant buying a digital camera shares: *“Canon is a very good brand. I have a lot of confidence in the brand and what I read was good... So, I said, I will risk everything, I am spending what I would spend on a trip and it is something I want and if I don't buy it, I will never buy it”*.

We deepen into these concepts of acceptance, conviction and fatigue that emerge in stage 4 later in the sections of emerging codes.

c) Perceived financial risk

We learn that at stage 3 participants perceive financial risk and that the lack of trust prevents them to reduce that type of risk by searching for information in digital channels. However, as they advance in information search, we observe that participants are able to

reduce perceived financial risk as their trust on the information improves. Moreover, at this stage we can observe the manner in which participants make use of the information to reduce perceived financial risk. Namely, the discovery of financing options or flexible payment methods are able to reduce perceived performance risk at this fourth stage. We will expand the concepts that emerge in the participants' explanation on how to reduce financial risk perception at stage 4 in the section of emerging codes.

We see that as participants experience the process of information search advancing from stage 1 to stage 4, they are able to learn which information to trust and which not. Moreover, the participants say that by searching for information they learn that they have options and warranties that causes them to trust and perceived lower financial risk.

Following up the emerging perceived risks of not using the product and risk of returns we observe that participants learn which information to trust and which not. Thus, they select those brands where they are able to gain trust.

As Monica, a female participant buying a smartphone says: *“Then I looked at them (smartphones) and I liked them because in BQ (brand’s website) they maintain the guarantee and all the trust matters that I thought didn’t exist on the Internet and I found it on that page.*

d) Trust

We observe in our data that during the stages 2 and 3 the lack of trust in digital information sources deters consumers to take purchase decisions and advance in the process of information search due to the inability to reduce perceived financial and performance risk. Nevertheless, at stage 4 we see that participants are able to increase trust in digital information using key reference points and key information that allow them to reduce risk and advance in the purchasing process. In fact, we observe that participants learn how to search for information, how to learn about the product and the seller and how to be able to develop trust.

Participants state that at this point in the information search process they have observed, contrasted and compared information that allows them to understand better digital information. In fact, they state that during the process they have learned about products and sellers as well as about digital information sources.

Garret who is buying a laptop illustrates this well. As he explains: *“From Dell there were two models that were recommended to me, then from HP there was also another and, in the end,, ASUS, that was a bit more expensive, but I can take more advantage of the features it has”*

“So, I was considering paying 500 - 600 euros more, but I have many more things to do according to all the reviews I looked at. Many said that as it is made for games, it has a very good processor, very fast, the computer goes very well”.

e) Perceived social risk

We observe that the study participants are more concerned about what others will think about their purchase decisions at this fourth stage of the process of information search. We see that as participants have used key reference points and more specifically, have asked their friends and colleagues about products and sellers, other people are involved in their purchase decisions and thus, will be aware of the final purchase outcome. Thus, we find that at stage 4 when participants are close to take a final purchase decision their social risk perception increases, and they seek to comply with others and not only to themselves. Moreover, participants state that at this stage of the process the information about their purchase activities and plans have been shared with them and thus some expectations and standards have been established in their environment.

Paul’s interview illustrates this well. When asked about whether he cares about what others think he responds: *“Yes! Imagine, if I am earning 1000 Euros and I only have 1 year working and I am only 23 years old and then they see me with an 80,000 euros car they will look at me like... badly”.* And he continues. *“And I do not think that it would be*

very proper with my friends, with my relatives. Because I would give an image maybe a little bit wrong. An image of proponent” ...

f) Action plans to reduce perceived financial and performance risk

As we mention at this fourth stage in the process of information search participants plan to reduce perceived financial risk and performance risk perception in order to continue with their purchasing process. Moreover, now participants are also concerned about social risk. What we observe in the process is that, as we state regarding the use of key reference points, participants don't plan to engage in more information search. Rather, they trust in their key reference points in order to diminish risk.

Finally, in terms of the discovery of mechanisms of financial loss recovery particular to digital channels and the potential association between perceived financial risk and perceived performance risk, we find that participants' perception about this remains constant and consistent. However, we find that at stage 4 of the process participants are more convinced to purchase the product and they only need to reduce perceived performance and financial risk to an acceptable level in order to take a purchase decision. In fact, during the whole process of information search we have observed and claim that perceived financial and performance risk go hand in hand during the purchasing process.

Table 11 shows the manner in which the concepts identified in initial stages behave as the information search process develops. Moreover, the emerging concepts are highlighted in table 11.

Table 11. Codes Identified at Preparation for Purchase Decision Stage

Codes identified at stage 1	Evolution at stage 2	Evolution at stage 3	Evolution at stage 4
Use of key reference points	Constant. Consumers seek for more specific references	Increase. In the case of persistence of perceived performance and financial risk due to lack of trust in digital information increase and becomes more specific	Increase and intensifies because of an increase trust on key reference points
Initial perception of performance risk	<ul style="list-style-type: none"> • Increases when consumers don't trust in digital information • Decreases when consumers trust in digital information 	Constant. Causes additional information search that can result in emerging types of perceived risk	Decrease as trust in digital information improves due to learning.

Codes identified at stage 1	Evolution at stage 2	Evolution at stage 3	Evolution at stage 4
Initial perception of financial risk	Decreases when consumers discover mechanism of financial loss recovery	Increases as a result of emerging types of perceived risk	Decrease as a result of: a) Discovery of financial options b) Flexible payment methods c) Improvement of trust
Social risk	Not manifested by participants as something relevant	Emerges	Increase
Action plans to reduce perceived financial, performance and social risk	When perceived performance risk persists consumers engage in additional information search in order to diminish it	Search for more information search but at selected sources	Don't engage in additional information search. Rely in key reference points

2) Emerging codes in stage 4

We observe that at this point in the information search process, the participants that are able to decrease risk at an acceptable level, continue advancing on the search process and seem to be directed to take a purchase decision. We see that these participants reach this level of acceptance risk by trusting key reference points and obtaining information on the web that is able to generate trust.

On the other hand, we see that when participants are not able to decrease risk at an acceptable level, purchase deterrence seems to happen. Thus, participants seem to decide for other options where risk perception is not high or to postpone their purchase decisions.

We code our observations on participants' perception and behavior that shape this fourth stage of the information search process as follows:

- Acceptance and conviction;
- Fatigue;
- Discovery of financing options;
- Hedonic value;

Table 12. Summary of Emerging Codes Identified at Preparation for Purchase Decision Stage

Code name	Description	Verbatim quote
Acceptance and conviction	Through learning and due to the increasing need to purchase, consumers experience a phase of acceptance and conviction that reduces	<i>I am going to choose one. I have to decide now. I felt also a bit the pressure of saying to myself: Don't waste more time with this. I don't want to waste my time with this decision, it's not so important either".</i> (Monica, female participant buying a smartphone).

	perceived financial and performance risk	
Fatigue	Accumulated cognitive effort that accelerates purchase decision	<i>“I’ll go directly for this one because I know I can’t afford the one of more than 3,000 euros. And because it isn’t yet available on the store right now, and because I start the new semester now and it is complicated enough...”</i> (Ed, male participant buying a laptop)
Discovery of financing options	The discovery of financing options offered by retailers that accelerate purchase decisions	<i>“I bought it! My brother brought it from Dubai because there it is almost 300 euros cheaper and I can pay it by monthly payments, so I pay a little bit every month”</i> (Maurice, male participant buying a laptop)
Hedonic value surges and intensifies	The hedonic value of products emerges or increases due to information search and the marketing communications	<i>“Then I also started to consider two options that wasn’t the obvious option, but I liked them. The Audi A1, which has come out recently, very nice, and the one I really like, but it’s a bit weird is the Fiat 500. It is so beautiful, isn’t it?”</i> (Paul, male participant buying a brand-new car)

As shows in stage 4 of preparation for purchase decision, new consumers’ perception, beliefs and actions that shape their decision are identified and coded. We find that perceived performance and financial risk are reduced as trust in digital information sources improves. Moreover, we observe that as participants learn during the information search process their conviction and acceptance of a manageable level of perceived risk allow them to continue with their purchasing process. Moreover, we see that given all the information collected at

this point and the effort invested in learning about products and sellers participants perceive fatigue and are putting their efforts to take a final purchase decision.

In the following subsections we explain in more detail our findings on how acceptance and conviction as well as fatigue emerge and causes the reduction of performance and financial risk perception.

a) Acceptance and conviction

We find that by advancing in the customer journey participants learn that purchase decisions entail levels of risk. We observe that when participants search for information and evaluate it, a process of acceptance takes place and their perception of financial risk and performance risk seem to decrease. Moreover, when participants realize that there is no missing relevant information and they accept a manageable level of risk is when they reach a phase of preparation for purchase decision-taking.

In fact, we learn that by this phase of preparation for purchase decision-taking the intensity of search activities seems to decrease as well. Participants verbalize at this point in the process of information search that they don't plan to search for much additional information as they perceive that they are not missing relevant data.

Finally, we observe that when participants find potential alternatives among their consideration set, the desire of obtaining the product increases and leads them to the final choice assuming an acceptable level of perceived financial and performance risk.

As Zoe explains about the purchase of a digital camera: *"I was also looking at options like Wi-Fi but I said to myself: "wait, but I do not need Wi-Fi if I can take it out of memory and go to the computer ..." that is.*

And she continues: *"it was a difference of at least 50 euros between the one of 1200 euros and 1300 euros and I thought I can get the one of 1200 Euro".*

b) Fatigue

At this point in the process participants also articulate that the need for product possession and the effort invested in searching for information cause fatigue that triggers decision-making at an acceptable level of perceived financial risk, perceived performance risk and perceived social risk that participants encounter at initial information search. On the other hand, we find that participants experience levels of fatigue as a result of dealing with the emerging types of perceived risk encountered at advanced information search.

In this case, participants seem to conduct actions to take a purchase decision and not engage in more tiring activities. As we explained earlier, participants state that they appeal to close friends' advice in order to take a decision or simply chose the product that is more attractive to them in case of doubts.

For instance, Ed who is buying a laptop says: "*So I went directly for this one*". Moreover, when he is asked about why he responds: "*The semester starts now, and it was complicated enough*".

In addition to acceptance and conviction and fatigue, we also identify in participants' narratives that when they find financing options (i.e. flexible payment methods) they are encouraged to take the purchase decision. Thus, participants decide for one option in their consideration set. We observe that these financing options reduce participants' financial risk perception and prepares them to take purchase decisions.

c) Discovery of financing options

We find that participants advance to a phase of preparation for purchase when they are able to decrease mainly perceived financial and performance risk. We observe that participants who have searched for information during some time and experienced the different phases pointed out before, remain trusting more in physical stores. However, we find that at this point trust on sellers can be developed through digital channels and not only by visiting physical stores.

In addition to an improvement in trust we find that participants are able to decrease perceived financial risk through a learning process about digital information sources. Through the information search process participants learn about warranties, returns and contact information on digital channels. Thus, participants learn how to trust digital stores and their perception of financial risk decrease.

Financing options or flexible payment methods are one of the most recurrent concepts in our study. We find that having or discovering financing options helps consumers to deal with perceived financial risk. In fact, we see that as participants search for information, they also find opportunities in digital channels related to financing options that results in perceived financial risk reduction and decision-making. For instance, participants find financing options from dealers at websites or payment options that create ways to deal with perceived financial risk. This encourages feelings of tranquility to participants that are facing perceived financial risk and helps them in decision making. Thus, we see in the participants' stories that as a result of information search, perceived financial risk can be diminished via expenses reduction (i.e. flexible payment options) encouraging decision-making.

As Maurice asserts: *"I would like to buy it in the next two months, next month maybe. Paying it by installments because paying it in one payment is too much!"*

d) Hedonic value surges and intensifies

Finally, we find that as participants advance from initial stages of information search to the preparation for purchase decision stage the product's hedonic value surges or increases. We learn that participants are increasingly motivated not only by products' hedonic attributes but also by websites' appeal. We find that as hedonic value increases, these consumers are more willing to assume perceived financial and performance risks and they are more willing to purchase the product. In addition, we observe that participants are motivated and influenced by website image and brand image.

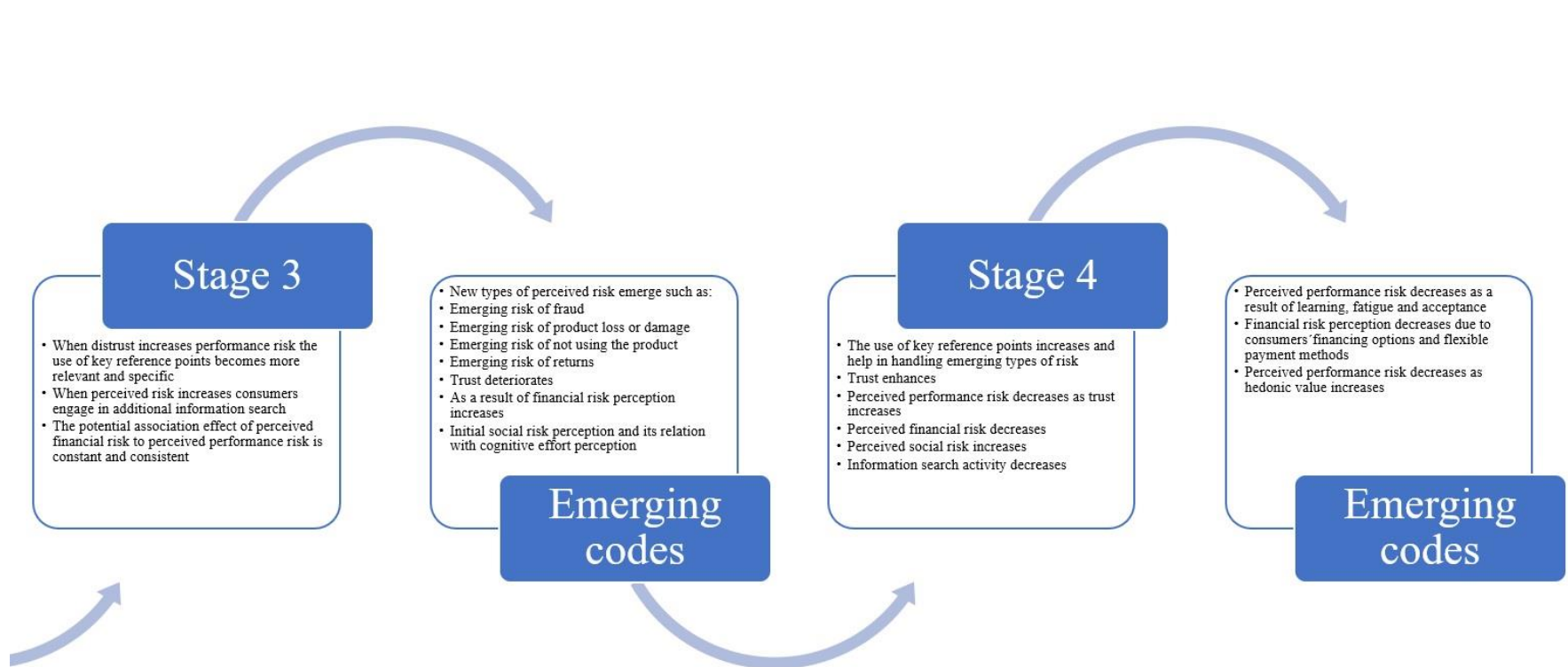
Thus, we learn that the value that consumers assign to the hedonic component of products increase at preparation for purchase decision. Moreover, from our findings it appears that as hedonic value increases, performance and financial risk perception are positioned to an acceptable level. Thus, consumers are motivated to purchase. In fact, participants state that their trust in websites improved as they evaluated websites' image (i.e. design, appearance) when searching for information.

Moreover, we observe that participants have learned during the process of information search about the value of the product, highlighting hedonic value and convincing them to buy. Moreover, when participants are motivated by the hedonic value of products, they are willing to pay more than their planned budget. Thus, hedonic value causes an easier perceived financial risk assimilation and lower risk perception in digital environments facilitating and encouraging decision-making.

Thus, we learn that at stage 4 is when participants decide to continue with their purchase process as they are able to manage risk or when they abandon as perceived risk is too high. Moreover, we see that participants that are able to decrease their initial perception of risk as well as those risks perception that surge during the process of information search are likely to take the purchase decision.

Figure 9 shows how the codes evolve in stage 4 and what other are codified in this stage of preparation for purchase decision.

Figure 9. Dynamic Relationship between Information Search and Perceived Risk from Stage 3 to Stage 4



Stage 4 - Narratives

In terms of the manner by which consumers are able to develop trust on sellers through digital channels and not only by visiting physical stores we find that consumers are able to decrease perceived financial risk and this helps consumers to prepare for decision making.

Monica at stage 4

Looking back at what Monica, the participant buying a smartphone, said at the beginning of her journey we remember that her concern about digital information sources was about being unable to contact a person in case of further problems or assistance with her phone.

At her initial information search stage, she visited her known physical store, she had previous experiences with it but this time she didn't find options of smartphones with the attributes she established. She states: *"I went to the store and the smartphones were beautiful and with a reasonable price but looking at the characteristics they didn't fulfill with what I had proposed"*.

So, then she decided to ask a friend from her University because she thinks he knows a lot about technology. She continues: *"So I spoke with my friend, as he knows a lot about smartphones, and I asked him about a phone with the characteristics I had in mind. And he sent me three or four links of some smartphones"*.

Following his friend's advices Monica visited several websites, such as Amazon and smartphone brands' websites. *"So, I saw these pages and at the beginning I wanted to get one of the cheapest. But then I saw the "BQ" brand website and they offered insurance in the case it gets wet, or if the screen breaks or if it gets stolen. I was very interested about these insurances because as I said my last phone was stolen"*.

Moreover, she could find in the BQ options with the product's attributes established before. *"So, from what I saw at the website I know the camera is good, I also know that the options of this brand have radio, I was interested about it since the beginning"*.

In terms of perceived financial risk reduction and the increase in the value of hedonic attributes, Monica followed the advice of his close friend and started looking at one of the recommended brands. She explains: *“So when he sent me the links I entered there and I think I got a bit influenced by the interface of the BQ Website that is so beautiful and the smartphones are so beautiful... there is the one in gray and the one in golden that I really like”*.

Moreover, when asked about why she is searching at websites, Monica responds: *“To avoid going to the store”*. And she adds: *“I already went to my known store (where she didn't find options) but as I don't have any other known store in Barcelona, I trusted what my friend told me. So, I decided to look on the Internet. So, I looked at the BQ Website and I liked it because they maintain the warranties and they maintain all the matters of trust that I though didn't exist on the Internet. But I have found it in that page, and they have assured me that I can trust”*.

Finally, Monica concludes: *“So the brand BQ seduced me with its interface they have. So, I have started searching among their options and I have decided to choose one from there as people have said good things about this brand”*.

In terms of the discovery of financing options we observe that consumers hasten to take a purchase decision when they find financing options that reduce their perception of financial risk. Monica found at the brand's website options in terms of financing that helped her being more comfortable about expected cash outlays and thus, she is decided to make a purchase decision under those conditions. She explains: *“So I was deciding among two options and also it has appeared on this website some days after, a financing plan of paying it in a term of three months and exempt of interests. I think it is Christmas campaign, so I decided to purchase one”*.

Tim at stage 4

In terms of trust in close friends, we find that friends' advice is crucial when consumers are at the final stages of information search and thus, have some options in their consideration set. We observe that our participants use to choose what their friends recommend and trust the information coming from friends.

At this point in the search process Tim is more convinced to purchase a second-hand motorcycle because it is more in line with his budget. Moreover, analyzing his options at advanced information search Tim pondered his budget and the expected use of the motorcycle (i.e. leaving it at the street at nights) and thus decides to invest in a second-hand motorcycle. In fact, he already has found serious options of second-hand motorcycles dealers as a result of his information search and his friend advice since the beginning of his information search process.

After having searched for information at initial information search and advanced information search Tim states that he is going to analyze all the information with charts, in order to be able to compare important characteristics such as final price, kilometers, product's current state and quality. Finally, he verbalizes that his next steps are to synthesize the information including some financing options that a dealer has offered to him: *"I want to control about the final price for each alternative, I have thought to do a sheet with all the options and compare them in a page with all the costs, reviews and advices... So, I can have a global perspective"*.

However, when we meet Tim short time after, he explains to us that something has happened regarding his purchase process. Tim explains that he has found a friend that is selling a motorcycle. He seems enthusiastic about having found this option. He states: *"Talking with a friend I found out that one of our friends is selling his motorcycle and this motorcycle has the characteristics I am looking for. Obviously, as the motorcycle is from a friend, I am more convinced than any other unknown person on the Internet"*.

Moreover, Tim trusts the veracity of the information coming from his friend, in terms of the actual state of the motorcycle, history and quality. This seems to significantly reduce his performance risk perception. He affirms: *"They assured me that the use and the care*

he has given has been good. I mean he has never mistreated the motorcycle; he has never had accidents and so on”.

In terms of acceptance and conviction Tim recognizes that after comparing his friend’s motorcycle with the second-hand dealer motorcycles and other second-hand motorcycles found on the Internet he is more inclined towards his friend motorcycle. He affirms: *“I have found that there are motorcycles similar to the one I think to buy (His friend’s) that have much more kilometers and they sell it even at higher price than the one I think to buy”*. Thus, after considering this information Tim seems convinced about his friend’s option. He states: *“The thing is that this one has been treated better as it has been always in a garage”*. Moreover, despite some weak points he seems to accept and prepare for his purchase decision: *“It has a scratch on the seat but Cooltra’s motorcycle also had so...”*

Finally, Tim saw and drove his friend’s motorcycle and now he accepts the weak-points and is convinced by the strong points (i.e. good price, trust in friends). When asked about whether he changed his preference from the first option (Cooltra, recommended by another friend) to this new option, Tim responds: *“Yes, because the idea that is from a trustworthy person attracted me... Thus, he will not cheat me in terms of the motorcycle state”*.

Monica at stage 4 part II

In terms of fatigue we observe that as consumers reach the final stages of information search their perception of cognitive effort of taking a decision cumulates, thus they verbalize their fatigue at this point in the process.

Monica recognizes that when his friend offered to send her more links of mobiles she refused because she was tired. She explains: *“I told my friend: “Don’t send me more” because he continues sending me, and I said: I don’t want more”*. And she adds: *“When you go and search for more information it is harder to compare. It’s true that on the Internet the information is quite good but the thing is that when you start comparing you lose time and I was busy working and studying so I felt the pressure of stop losing time and take a decision”*.

Finally, we perceive Monica’s fatigue and determination to take a decision as she continues. She verbalizes: *“In the end it took part of my time, more than I was expecting so that’s why I say I will take the decision I don’t want to look anymore, I don’t want to know more, about smartphones or anything else”*.

In terms of our finding that hedonic value decreases perceived financial and performance risk and encourages purchase, our participants show that as they advance in the information search process the value they give to hedonic attributes increases as they engage with brands, read positive reviews and see appealing images on the web. This information favors options that highlights hedonic attributes and are likely to be included in consumer’s consideration sets.

Remembering what Monica said, about how beautiful was the website and the phones and how it influences her to favor that brand she also states how she decided to make an effort and exceeds her budget. *“I liked the mobile that was exhibited there, so I said: “I will make one more effort, but I will get at least what I want”*.

Table 13. Summary of Stage 4 – Narratives

Stage 4	Monica	Tim
narratives	<ul style="list-style-type: none"> • Has visited physical stores and consulted key reference points • Following the advice of a friend (a key reference point) she engages in digital information search and realized she can reduce financial risk perception using digital information sources too • She reduces perceived performance risk by searching for information in digital channels • At some point in her purchase journey, she feels overwhelmed with information load. However, she is able to reduce her financial and performance risk perception by increases in hedonic value of the product (mobile phone) 	<ul style="list-style-type: none"> • Advances with the evaluation of the information collected at digital and traditional channels. • Discovers a convenient purchase opportunity from his search at key reference points (a friend sells a motorcycle) that reduces his overall perception of risk

Concluding we observe that after having collected and analyzed information consumers prepare for purchase and seek to dissipate their last concerns about products and sellers. One of the first things we learn is that consumers trust their close friends (i.e. family, partner) and use the information coming from them as the last word in many cases.

Moreover, we learn that perceived financial risk seems to decrease at the last stages of information search which allows consumers to prepare for decision-making. We observe that as consumers gain trust of digital information or overcome distrust in digital information through mechanisms of learning and WOM, perceived financial risk decreases. Also, perceived financial and performance risk decrease at an acceptable level when consumers learn about financing options, and also as a consequence of fatigue, acceptance and conviction.

In the following part, we learn what occurs at the end of the information search process. As this research focuses on the stage of information search of the customer journey, we take into account those processes that end with a purchase as well as those that end in deterrence or postpone of purchase. In the following part we explain both situations and learn more about how perceived risk at purchase decision-making stage behave and influence consumers' behavior.

5.6 Stage 5: Purchase decision-making and post-purchase behavior

Content

Stage 5: Purchase decision-making and post-purchase behavior
1) Evolution of codes from stage 4 to stage 5 <ul style="list-style-type: none"> a. Use of key reference points b. Perceived performance risk, perceived financial risk and trust c. Perceived social risk
Table 14. From stage 1 to stage 5 (evolution of codes)
2) Emerging codes in stage 5 <p>Table 15. Summary of emerging codes identified at purchase decision-making and post-purchase behavior stage</p> <ul style="list-style-type: none"> a. Reinforcements of decisions b. Decision-making that is worth the cognitive effort c. Ability to maximize digital information d. Purchase deterrence
Figure 10. Dynamic relationship between information search and perceived risk from stage 4 to stage 5
Narratives <ul style="list-style-type: none"> Monica at stage 5 Tim at stage 5 Oliver at stage 5 Rachel at stage 5 <p>Table 16. Summary of Stage 5 - Narratives</p>

We see that once participants have overcome the cycle of risk perception and information search and reach an acceptable level of risk; they increase their urgency to purchase and engage in the last activity of purchase. Thus, we observe that participants take purchase decisions such as buying and in fact, we are able to observe their post purchase behavior. Moreover, we also see that when a type of risk is too high, participants desist of purchasing or postpone the purchase with hopes of improving their current situation at this stage.

We learn that at the moment of purchase participants have been able to reduce risk, but also, we observe that they perform post-purchase analysis and activities to reduce specific types of risk that remain after purchase and also to validate their decisions.

1) **Evolution of codes from stage 4 to stage 5**

Participants show that when they reach their final stage of purchase decision-making, they are ready to purchase or abandon. What we observe is that in the case of purchase, participants have managed their initial risk perception to an acceptable level thanks to the use of information that in their case is able to reduce risk. Moreover, we see that participants still perceive risks, mainly social risk but that risk perception don't deter them to purchase.

Following up the perceptions, beliefs and actions that participants show during the previous four stages we find the following:

a) **Use of key reference points**

At the moment of purchase, we observe that participants have many options in their consideration set and they are urged to select one. We see these participants asking their close friends rather than searching for information on the web. Moreover, we learn that participants' trust on key reference points (i.e. friends), when choice is not clear, is necessary for them to take a decision with confidence. In fact, we observe that the use of key reference points is used in the majority of the purchase process that we followed.

As George, who is buying contact lenses for the first time says: *“But it was my friend's girlfriend who... I talked to her and I felt like her honesty. It was her honesty and conviction, so I said: OK, yes! Let's do it!”*

Moreover, we observe that the manner in which participants make use of key reference points responds to the need to justify their purchase decisions. We find that participants

need to substantiate their purchase decisions by highlighting the products' benefits and good deals not only to themselves but to others.

Moreover, we see that participants relate this need to justify a decision with their perception of social risk. From our findings it seems that participants use key reference points to reduce social risk perception as they are concerned about what other think about their purchase decisions.

For instance, Paul who is buying a brand-new car says: *“Traveling by train is more and more difficult. There is a lot of strikes, delays and lots of people. The trains themselves are smaller so I decided I am going to look for a car right now!”*

b) Perceived performance risk, perceived financial risk and trust

We observe that at this point purchase decisions are taken when perceived performance and financial risk are managed to an acceptable level. Moreover, we observe that the information that shapes participants' decision-making is the one that they trust. Thus, comparing participants' perception of performance and financial risk at stage 4, we see that at stage 5 of purchase decision-making they remain stable. Therefore, we see participants deciding to take actions in order to take a purchase decision.

Moreover, we observe that participants learn that in order to manage performance risk and financial risk perception it is necessary to invest effort in digital environments. We deepen this finding in the emerging codes section.

c) Perceived social risk

Following up participants' stories we observe that in terms of their previous perception of social risk and the subsequent increase in stage 4, they seek to reinforce their purchase decisions in order to manage social risk. As participants verbalize, their purchase

outcomes are observed by others mainly after they take the decision. Thus, there is a time after purchase when they are still dealing with social risk.

Consequently, we see a reinforcement of decisions in order to reduce social risk. Participants' behavior after purchase shows that they seek to reinforce purchase decisions by sharing them with others and getting their approval.

For instance, Oliver who is buying a smartwatch says: *“I shared it because I like it. To reinforce my good choice. And also, because these are not devices anymore, but also fashion. It is like if you buy a new dress and you share it. It's the same!”*

Ultimately, what we observe is that when consumers are able to manage risk, they take purchase decisions. Moreover, even after purchase there are risks that consumers seek to reduce.

Table 14 shows these findings and how the codes identified earlier unfolds as it reaches the last stage in the process of information search and risk management.

Table 14. From Stage 1 to Stage 5

Codes identified at stage 1	Evolution at stage 2	Evolution at stage 3	Evolution at stage 4	Evolution at stage 5
Use of key reference points	Constant. Consumers seek for more specific references	Increase. In the case of persistence of perceived performance and financial risk due to lack of trust in digital information increase and becomes more specific	Increase and intensifies because of an increase trust on key reference points	Decisive at the moment of purchase
Initial perception of performance risk	<ul style="list-style-type: none"> • Increases when consumers don't trust in digital information • Decreases when consumers trust in digital information 	Constant. Causes additional information search that can result in emerging types of perceived risk	Decrease as trust in digital information improves due to learning.	Are managed at an acceptable level

Codes identified at stage 1	Evolution at stage 2	Evolution at stage 3	Evolution at stage 4	Evolution at stage 5
Initial perception of financial risk	Decreases when consumers discover mechanism of financial loss recovery	Increases as a result of emerging types of perceived risk	Decreases as a result of: a) Discovery of financial options b) Flexible payment methods c) Improvement of trust	Are managed at an acceptable level
Social risk	Not manifested by participants as something relevant	Emerges	Increase	Persists
Action plans to reduce perceived financial, performance and social risk	When performance risk perception persists, consumers engage in additional information search in order to diminish it	Search for more information search but at selected sources	Don't engage in additional information search. Rely in key reference points	Reinforce purchase decisions and comply with others

2) **Emerging codes in stage 5**

At stage 5 of purchase decision, we see that participants' perception shape their last actions of the process. As we mention there are consumers' perception, beliefs and actions that explain their final purchase decision and that emerge during this last stage. These concepts are:

- Reinforcement of decisions
- Decision-making that is worth the cognitive effort
- Ability to maximize digital information
- Purchase deterrence

Table 15 summarizes the last concepts being coded that affect participants' decisions at the last stage of the process of information search.

Table 15. Summary of Emerging Codes Identified at Purchase Decision-making and Post-purchase Behavior Stage

Code name	Description	Verbatim quote
Reinforcement of decisions	Consumers effort and behavior (i.e. returning to information sources to validate or clarify doubts) towards reinforcing their purchase decisions	<i>“In fact, I went to Corte Ingles (a department store) afterwards and I went through the stand of this brand and I said uff I don’t want to look in case it’s cheaper here. I looked but my jacket wasn’t there. In the end I really like my jacket!” (Brian, male participant that was considering buying high range sneakers but purchased high range clothing)</i>
Decision-making that is worth the cognitive effort	Justification of the effort invested in information search as a result of perception of having made a good choice	<i>“Of course, the bad thing is that there is too much information, so of course there is no tool here that filters everything, it is you who have to filter it and that’s the worst. But it’s totally worthy as you chose the option being sure about how bad the cell phone is and how good the cell phone is. So, I prefer to be conscious about the product at the moment of purchase” (Mike, male participant buying a smartphone)</i>
Ability to maximize the benefits of digital information	Consumers’ perception of having acquired skills on how to use digital information to reduce risk in future purchase processes.	<i>“I learned mainly about reviews; I think they are very important. If you have five reviews for instance one pro-Samsung and the other pro-other brands, you will see all the differences. Thus, you don’t get negative surprises when buying” (Mike, male participant buying a smartphone)</i>

Purchase deterrence	Consumer's postponement of purchase decision	<i>"I would say that what influences me the most to postpone it is money. If I had a lot of money of course I had already bought it. But as I have to be managing the money that I have and in what I am going to spend it, that is the big problem" (Craig, male participant buying a laptop)</i>
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From our findings it appears that at the last stage of information search participants overcome different difficulties at the previous stages where they have discovered and dealt with risks to take a purchase decision. About participants' behavior at this stage we find:

a) Reinforcement of decisions

We observe that right after taking purchase decisions participants seek to reinforce their decisions. At this point in the majority of cases participants are still able to return products and we observe that they seek to reinforce their decisions by searching for more information to reinforce the accuracy of their decisions and also to make sure they didn't miss any better opportunity. Thus, we observe participants going back to brand's websites and blogs to read about the product they just purchased. At purchase decision-making, these search activities are less intense than during the process of information search and it usually consists of a quick look just a couple of days after purchase.

However, we see that participants aim to justify their purchase to themselves and to others around them and this is more important for them at this last stage. Our participants verbalize the reasons why they purchase specific products. Also, they show how they prove others their good reasons to purchase. For instance, we find participants that argue to convince themselves and others that purchasing specific products is the best choice by listing a series of facts that are favorable to the purchase. (i.e. making good deals, improving life through product use).

As Zoe says: *“So when I started to see them, I said, uff, it's a lot of money. When I paid it, I said, ok, I assume. Now I say, it worked out really well, that is, it really worked out for me”*.

b) Decision-making that is worth the cognitive effort

We also learn that when evaluating their information search process, participants consider that searching for information in digital environments entails higher levels of cognitive effort. However, they state that the effort invested during information search process (i.e. making comparison, reading reviews, and filtering out honest from dishonest reviews) is worthy as they end up satisfied with their decisions.

We find that in general, participants perceive the process of information search as more complex than initially expected. For instance, some participants assert that the process took more time than they thought. However, these participants asserted that their effort was worthy as their level of satisfaction is high at the moment of purchase. In fact, we learn that participants associate their effort invested during information search with the accuracy of their decisions. Participants explain that their satisfaction with their information search process comes from the confidence they had at the moment of purchase as they controlled lots of information. Thus, they don't have perception of "missing information" or of having missed better options. In fact, participants articulate that through engaging in information search processes they are able to learn how to make use of digital information to take good purchase decisions and decrease risk.

Mike's interviews illustrates this well.

When asked about whether he believes that all the effort and time invested in searching for information is worthy, he responds: *"Yes, yes, yes. Totally"*. And when asked about why and how does he feel. Mike responds: *"Because you see the product and pay attention and then you go in a safe manner, understanding well what is wrong with the smartphone, what is good... And then when you have it and try it, you say it's true"*.

c) Ability to maximize the benefits of digital information

At this point in the purchasing process we ask participants about their post-purchase experiences and we find that participants trust on digital information as they learn about

them (i.e. differentiate biased information) throughout the information search process. Moreover, we find that participants trust and use other consumers' experiences such as reviews and blogs. In fact, participants explain that honest reviews and knowledgeable people on the web help them to take better purchase decisions. Moreover, participants also verbalize that trust in close friends is crucial at the moment of purchase as they provide knowledge and confidence.

As Tim says about digital information: *"In fact, I feel relieved in the sense that there are many people giving me information that I could not access otherwise. And he continues: "I feel more comfortable and confident about what I am purchasing"*.

d) Purchase deterrence

From participants' stories we also observe cases when risk cause purchase deterrence. Even though these participants search for information and advance in the process, at some point they decide to abandon or postpone their purchase decisions. Participants state their intentions to not continue with the purchase process having already searched for lots of information. In fact, they shared their intentions to abandon at this stage in the interviews.

As we identify and state earlier in cases where risk persists and reach levels that cannot be tolerated by consumers, purchase deterrence occurs.

As Craig, who has in the process of purchasing a laptop assert: *"The issue is the money, and I have decided to postpone it because with the money I have at the moment, I prefer to travel or go to restaurants"*. And he continues: *"The laptop was not an indispensable purchase although it is really important for my job. But I can continue using my current laptop till it works"*. *"I do not rule out that I'm going to buy the laptop this year, but surely I'll buy it financed, and if I do, I'll let you know"*.

Ultimately, we learn that consumers are able to take decisions after having dealt with perceived risks during information search. However, we find that participants remain perceiving some types of risk right after purchase and they engage in activities to decrease

it. For instance, we see participants perceiving social risk and thus, sharing their purchase decisions with other consumers to receive validation and reduce that risk.

Moreover, we find that participants also seek to reinforce their purchase decisions with friends, relatives or colleagues in order to decrease social risk. We observe that participants share their purchase decisions just after purchase (i.e. sharing in social media, sending pictures) in order to get a sort of approval from the people around them.

We observe that when it comes to social risk participants experience a transition process that goes from a perception of social risk during individual information search (i.e. searching for information without sharing with friends) to a more social or collective information search (i.e. asking friends, sharing consideration set or store experiences in social media) at the moment of purchase. Thus, consumers seek to reinforce their individual purchase decisions in the eyes of others by engaging in sharing in digital contexts his or her purchase decisions in order to reduce social risk.

Therefore, during information search consumers seek to reduce social risk by engaging in information search in an individual fashion but once they take decisions, they start sharing their actions on social media and seeking for validation from others.

Moreover, a self-reinforcement of their search decisions seems to be necessarily in order to take a purchase decision and to ensure purchase satisfaction and social acceptance. Thus, consumers share in a private fashion such as direct message or instant messaging or in a public way through social media brands selected and stores experiences in order to validate and reinforce their decisions and thus, reduce social risk.

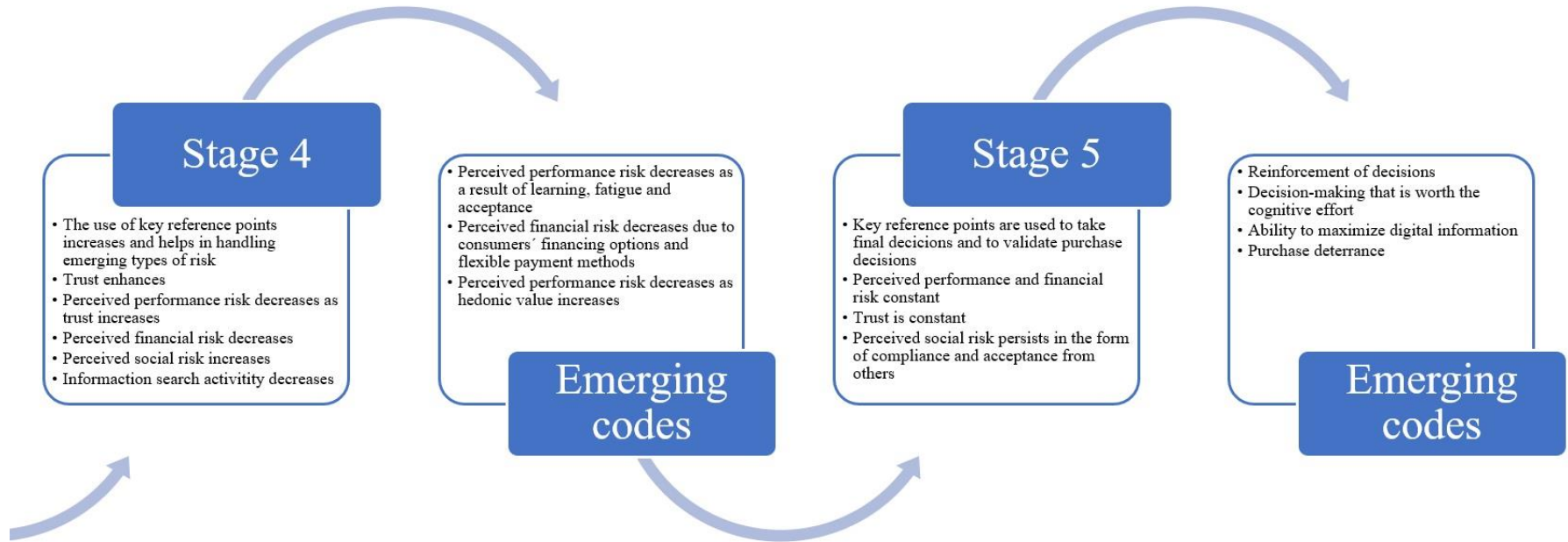
Definitively what we observe is that social reinforcement at the moment of purchase decision-making emerge as an evolutionary manifestation of social risk. In the end consumers seek to reduce social risk, but at the moment of decision-making there is a transition in consumers' effort from a perspective of taking the best decision to a perspective of reinforcing that decision.

Finally, we learn that at decision making consumers evaluate their journey and try to learn from it how to search for information in their future search processes. Finally, we observe that confidence leads consumers to take purchase decisions, and in many cases, confidence

is built from knowledge acquired on digital information sources as well as using the aid of friends that encourages purchase.

Figure 10 shows the manner in which the concepts that have a role on how perceived risk behaves during the development of information search in digital environments.

Figure 10. Dynamic Relationship between Information Search and Perceived Risk from Stage 4 to Stage 5



Stage 5 - Narratives

We find that when taking purchase decisions participants seek to maximize the accuracy of their decisions and short after the purchase, they seek to reinforce those decisions. Both Monica and Oliver decided to purchase the smartphone and smartwatch respectively they were considering buying. Whereas Monica entered into the brand's website two days after her purchase to read more about the product and compare her choice with her alternative model, Oliver checked at his usual blog to read some opinions about his smartwatch.

Monica a stage 5

When asked about whether she searched for more information about her smartphone Monica responds: *“Mm yes, to show to my friend what I bought. At that moment I was waiting for the delivery of the smartphone to my place. I entered also to see if a new model had come out, for curiosity but it hasn't come out yet and I really don't care, I have this and I am happy”*.

Moreover, she analyzes her information search process and recognizes that having friends that helped her during the process made her feel more confident when choosing a smartphone. She explains: *“The one that helped me the most was my friend... If I would start searching by myself, I would lose even more time and I wouldn't be sure about what I was buying. Thus, I trust on the advice of my friends”*.

Tim at stage 5

In terms of justifying purchase decisions, Tim is satisfied with his purchase decision and short after his purchase he asserts: *“In the end in my case I had found a much cheaper motorcycle but from a much closer source, from a friend. Thus, these two conditions satisfied me”*. Although Tim was initially convinced about getting a second-hand motorcycle from a company that his friend recommended him, he found a friend that opportunely was selling his motorcycle. The motorcycle was the type of vehicle Tim was looking for and thus, he started to consider this alternative. In the end, Tim asserts it was his best option given the price and the trust of the vendor, which in this case is his friend. Tim shows his satisfaction and is convinced of having taken the best purchase decision.

In terms of trust in digital information our results find that at the moment of purchase and after purchase consumers manifest that they learn about how to manage digital information and thus, how to trust and use it properly to decrease risk. While analyzing his journey Tim manifests: *“knowledge is power! I think that after searching for information at digital sources I got more information and it made me feel more comfortable with the option I was buying. Also, because with this information you are able to see things about the motorcycle that I wouldn't see otherwise”*.

Moreover, Tim adds: *“This has been one of the biggest purchase I have made and I felt that if you read the information well, and you make a series of schemes then you get knowledge, and thus you get more confidence when purchasing”*... So, it depends on what to choose to read, if you simply read a lot of information and you don't organize it then it is useless for your decision”.

Finally, Tim verbalizes: *“I learn that you have to make an analysis of what you are reading in the reviews, at a critical level to understand whether what you are reading is not sponsored by the brand. What I think you have to do is to take advantage of these modern tools that can help you in terms of accessing information in a faster way and being able to make comparison in a quick way”*.

Oliver at stage 5

Moving back to Oliver's journey, similarly to Monica, he went back to information sources after purchase. He asserts: *"Yeah I went back to a blog, but those I use to read"*.

Also, in terms of reinforcement of purchase decision in order to decrease social risk, we find that some of the reasons why participants share pictures of brand-new products is because it seems to be one way to reinforce decisions in front of others. Having recognition and approval from others seems to motivate consumers to share and thus reinforce decisions. One of the first things Oliver did after receiving his products was to share nice picture of the packages and products on social media. He asserts that sharing this with his friends makes him feel good. He says: *"I did share those pictures because I like to (silence)... to reinforce my good choice"*.

Moreover, Oliver recognizes that the process of information search took longer and that he invested more effort than what he was expecting. Also, he feels that this purchase decision took longer than other purchase processes he remembers. However, he thinks that all the effort invested in collecting information was worthy.

When asked about whether he thinks that all the effort and energy invested is worthy, Oliver responds: *"Yes, because if I had purchased maybe another model then I would be thinking or regretting about not having gotten the best choice. And as I am satisfied with the one I chose. I think that it did worth having thought well which one to buy"*.

In the end, after comparing information from different sources Oliver purchased the Apple Watch. He expresses his satisfaction and that he is enjoying his new device.

Rachel at stage 5

Similar to what Oliver does, Rachel use to send pictures of her purchases to her friends as soon as she receives the package. She recognizes: *“We would get excited over when the package was coming”*. And she continues: *“It would be like as soon as you have the package, your friends say: “Oh quick! Send me pictures of everything you just bought”*”.

And she adds: *“Also try everything on and you send pictures like in the mirror of everything you just bought, imagine”*.

In terms of effort, Rachel thinks that having digital information sources makes consumers put more efforts while searching for information. However, she believes that better choices can be made with digital channels as there are many more options and availability. She asserts: *“From one side when we are buying a product we can put like a lot more thought into it and see different reviews and getting information and to make sure that we are getting the best products and the best prices, and the best availability but then I think there’s is also a lot of wastage in terms of... we are buying things that we don’t really need.”*

At the moment of purchase Rachel found a website where the products seem beautiful and at a good price, but as we learn before Rachel read reviews and watched videos where people were saying good things, but others were claiming that it was scam. As she states before, she was not going to take that risk and thus she didn’t purchase her vacations garment from that websites. She says: *“I am glad I didn’t purchase from there”*.

She then found another online store called *“Triangle”*, an exclusively online store that doesn’t have a physical shop. Thus, as we learn, during her information search Rachel watched a lot of unboxing videos and found a girl with whom she felt identified in terms of sizing. Moreover, as she stated during her initial information search, in these videos she actually saw people unboxing real products from that store. Consequently, in the end, Rachel decided to purchase from there and after receiving her products she tells us: *“Yeah, I ordered all of them the same size and luckily they actually all fitted”*.

Table 16. Summary of Stage 5 – Narratives

Stage 5	Monica	Tim	Oliver	Rachel
narratives	<ul style="list-style-type: none"> • Engages in information search after purchase to make sure she made the right decision and share it with her friends • She explains that advices from friends (use of key reference points) helped her take her purchase decision 	<ul style="list-style-type: none"> • Is satisfied with the digital information he collected during search 	<ul style="list-style-type: none"> • Shared his purchase on social media • Recognizes that it was a long process, that he putted a lot of effort 	<ul style="list-style-type: none"> • Shares her purchase with her close friends (through direct message and photos) • Says she feels that she has to put lots of effort filtering out information at digital channels. However, she thinks better purchase decisions are made thanks to digital information • Because of high-risk perception she experienced during search she didn't buy at one website. She rather purchased from another web store when

				her overall risk perception was at an acceptable level. She could decrease risk at this acceptable level engaging in information search at digital channels
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5.7 Conclusion of findings

The findings that we obtain from the empirical study conducted in this research identify five stages in the process of perceived risk processing during information search. This enlarges the understanding of perceived risk as a process, consisting of stages stated by Conchar et al. (2004) and the research reviewed for this study that suggests the need of a finer grained approach to theorize perceived risk in digital environments. We find that consumers advance in this process by moving through these stages that are characterized by the perception of risks, the information search activity directed towards the reduction of risk perception and the emergence of new concepts and relationships. All this occurring in an interactive manner that ultimately, shapes consumers' decision making and choice during information search and in some cases, until purchase decision.

Table 17 summarizes the five stages in which perceived risk develops during information search. This table illustrates the initial concepts, relationships and meanings that are identified at the early stages of information search and how they evolve during the subsequent stages.

Moreover, table 17 shows the emerging concepts, relationships and meanings that appear in specific stages as consumers advance in the process of perceived risk during information search

Table 17. Summary of the Concepts, Relationships and Meanings and its Evolution through the 5 Stages of Perceived Risk Processing during Information Search

Initial perceptions and behavior at stage 1	Evolution of perceptions and behavior from stage 1 to stage 2	Evolution of perceptions and behavior from stage 2 to stage 3	Evolution of perceptions and behavior from stage 3 to stage 4	Evolution of perceptions and behavior from stage 4 to stage 5
<ul style="list-style-type: none"> - Use of Key Reference Points - Importance of product's attributes and initial perception of performance risk - Initial perception of financial risk - Actions plans to reduce initial perceptions of financial and performance risk 	<ul style="list-style-type: none"> - Use of key reference points is constant - Performance risk perception increases when there is no trust on the sources of information - Performance risk perception decreases when consumers trust the sources of information - Financial risk perception decreases as a result of information search 	<ul style="list-style-type: none"> - Use of key reference points increase when consumers don't trust the information - Performance risk perception is constant - Financial risk increases as a result of emerging types of risk - There are still evidences of a potential association between financial risk and performance risk 	<ul style="list-style-type: none"> - Use of key reference points increase - Performance risk perception decreases - Financial risk perception decreases - There are still evidences of a potential association between financial risk and performance risk - Perception of risk of fraud, product loss and risk of return decreases with information search - Perception of risk of product misspend disappears as consumers confirm their purchase intentions - Social risk perception increases 	<ul style="list-style-type: none"> - Use of key reference points remains high and becomes decisive influence for purchase decision - Performance risk perception is managed at an acceptable level when purchase happens - Financial risk perception is managed at an acceptable level when purchase happens - There are still evidences of a potential mediation effect of financial risk to performance risk - Social risk perception remains - Attitudes of acceptance and beliefs of conviction remain - Consumers experiencing fatigue remain - Hedonic product value consolidates
	<p>Emerging perceptions and behavior in stage 2</p> <ul style="list-style-type: none"> - Discovery of mechanism of financial loss recovery - Potential association between financial risk and performance risk 	<p>Emerging perceptions and behavior in stage 3</p> <ul style="list-style-type: none"> - Perception of risk of fraud - Perceptions of "product loss" risk - Perception of risk of not using the product (product misspend) - Perception of risk of return - Initial perception of social risk 	<p>Emerging perceptions and behavior in stage 4</p> <ul style="list-style-type: none"> - Attitudes of acceptance and beliefs of conviction - Consumers experiencing fatigue - Discovery of financial options - Hedonic product value surges and/or intensifies 	<p>Emerging perceptions and behavior in stage 5</p> <ul style="list-style-type: none"> - Reinforcement of decisions - Satisfaction with the purchase process and cognitive effort invested - Purchase or Purchase deterrence
Tim and Monica	Tim, Oliver and Rachel	Rachel, Tim and Oliver	Monica and Tim	Monica, Tim, Oliver and Rachel

CHAPTER 6: DISCUSSION

6.1 Introduction

This section deepens in understanding the findings presented in chapter 5 by analyzing the concepts, constructs and relationships identified in our data and contrasting them with existing literature.

The discussion follows an iterative process of analyzing the findings, contrasting them with existing theories, going back to data, codes and narratives; and reflecting upon the results under the lenses of our theoretical framework. Also, we interpret the new insights that are not considered by existing literature through contextualizing them in the phenomenon that we are understanding and thus, give meaning to the findings. This analysis of findings is guided by the research questions stated before. Thus, by analyzing the findings we provide answers to the questions that motivate this research work. Finally, we provide propositions to the model of perceived risk processing of Conchar, Zinkhan, Peters, & Olavarrieta (2004), the theoretical framework that we use to guide the analysis of our results. We do this in order to provide a more detailed and contextualized understanding of perceived risk processing during information search process in digital environments.

This section is structured as follows: First, by following the process of phenomenological research discussed in Goulding,(2005); Mick & Demoss (1990) and Thompson (1997) we reflect upon the big picture of the phenomenon. That is, we analyze the findings from the perspective of our overarching question on how the digitalization of the marketing environment affects consumers' perceived risks during the process of information search. Second, we tackle the analysis of perceived risk from a time-driven perspective that allows us to have an appreciation for the role of time in the manner in which perceived risk unfolds during the process of information search. This analysis provides answers as to why there are contradictory findings in the literature about the relationship between perceived risk and

information search when it comes to digital environments. Moreover, we discuss how the interplay between perceived risk and information search develops over time.

This gives rise to go in depth into the factors that explain the changes in the process of perceived risk and information search. Then, the analysis of findings focuses on the new concepts, relationships and meanings that emerge in perceived risk processing during information search in digital environments. This also explains the changes in perceived risk processing during information search as part of the digitalization of the marketing environment.

Finally, the discussion engages in contextualizing the findings in the context of the phenomenon of perceived risk during information search in digital environments to make the contribution. Accordingly, as an outcome of the discussion of findings we make propositions to the traditional model of perceived risk processing.

6.2 On the nature of perceived risk and the relationship with information search

Following our data analysis strategy, we review our findings in a holistic manner and get the sense that the current use of digital information has transformed the manner in which consumers search for information and how they perceive risks in a purchase situation.

Also, we identify that consumers manage risk using different strategies that are constructed during the purchasing process. Thus, we see that consumers react to information and construct their risk management strategies right away. As Bettman, Luce, & Payne, (1998) suggest “*due to limited processing capacity, consumers often do not have well-defined existing preferences, but construct them using a variety of strategies contingent on task demands*” suggesting that constructive approaches fit more when understanding this phenomenon. In this sense, initially we observe that due to the high amount of information that digital sources facilitate, consumers can’t anticipate or define their risk management strategies but rather construct them as well as their search path and decision-making in a constructive manner.

Thus, we find that the digitalization of the marketing environment affects the manner in which consumers perceive risk, how they search for information and the relationship of these two constructs in purchase situations. In this chapter we discuss our findings that shed light on how consumers experience perceived risk during the process of information search and how they construct their search path as they manage risk and search for information.

1) Understanding the effect of digitalization on perceived risk during information search

Moving forward in the process of hermeneutic endeavor, a stage in the process of phenomenological research (Mick & Demoss, 1990) and approaching the rich description of the phenomenon and the explanation of consumers' behavior, our findings provide a finer grained perspective of perceived risk. This finer-grained perspective provides an understanding of the dynamics of the different types of risk and information search in digital contexts. Moreover, unlike dominant literature (Biswas & Biswas, 2004; Campbell & Goodstein, 2001; Cox & Rich, 1964; DelVecchio & Smith, 2005; Mandel, 2003; V.-W. Mitchell & Papavassiliou, 1999) that focuses on a one-time and static perspective of perceived risk, our findings provide an over-time perspective of how perceived risk behaves during the process of information search in digital contexts. The identification of five stages in our findings provides the evidence that shows how the different types of risk develop and evolve through information search demonstrating the process nature of perceived risk.

More specifically, we find that through these five stages consumers change the way they build trust on information, both digital and traditional. This is because digital channels offer access to information beyond consumer's physical location. Thus, they can obtain information from experts, from real consumers or from honest reviewers. These are called key reference points, which aid consumers in building their search strategy to diminish perceived risk. Moreover, one particular aspect that highlights in the new customer purchase journey is how social risk perception have a role in the way consumers take purchase decisions. Perceived social risk seems more prominent in digital purchase environments.

Consumers, that now demand better experiences from brands also seem more demanding to themselves as there is a clear need to reduce social risk perception to comply with others when buying.

Thus, as it is shown in figure 12, we find that in digital purchase environments consumers use different and seamless sources of information in a dynamic manner in order to construct their information search strategy in order to reduce risk perception. This causes more informed and demanding consumers that build communities (interacting online and offline) that encourages peer-to-peer collaboration that is able to reduce for instance, perceived performance and financial risk but that can increase social risk or perceive new types of risk particular to digital environments at the same time.

In the following sections we broaden the discussion of these findings on how perceived risk develops as a process during information search; this tackles the role of time in the manner in which perceived risk unfolds.

2) Perceived risk during information search as a process: the role of time

Our results uncover mechanisms that explain the contradictory findings in recent literature on the expected relationship between perceived risk and information search in the digital context. While some studies find that perceived risk decreases by searching for information (Chaudhuri, 2000; Schmidt & Spreng, 1996), others find that information search can increase perceived risk (Biswas & Biswas, 2004; Mandel, 2003). The potential paradox identified in the literature on this relationship and building on the theories of risk that consider phases of risk processing (i.e Conchar et al., 2004) and taking as a reference the work of George & Jones (2000) on the role of time in theory, this research puts the focus on the role of time in perceived risk during information search.

We find that consumers' perception of the different types of risk changes and fluctuates over the time that takes the process of information search. During this process we see that consumers move forward in searching and evaluating purchase-related information and that they experience different types of risk perception in different manners depending on the

specific moment during this process. Consumers experience the different types of risk during the process of information search as reduction, increase or emergence of risk. For example, the participant named Monica starts her information search process perceiving high financial risk, but as she interacts with information this perception decreases. Thus, by looking at perceived risk in a one-spot and isolated point in the information search process, the interactions and the manner in which risk unfolds is missed leading to contradictory results on the relationship between perceived risk and information search.

Following the perspective of Conchar et al. (2004) that proffered the view of risk as consisting on phases, in the specific context of the purchase decision-making process we disclose five stages of information search where consumers deal with perceived risk. These five phases are characterized by dynamic loops where consumers construct their search path in order to manage perceived risk and take a purchase decision. We observe that these loops are characterized by moments of progress when consumers advance in their journeys by searching for information and reducing some types of risk and moments of regression when consumers revolve around the discovery of new types of perceived risk or an increase of existing risk types from the information collected in the process. George & Jones (2000) point out that some phenomena in consumer behavior occur and reoccur in cycles. Moreover, that study asserts that given that some causal relations occur in cyclical patterns over time (i.e. moving upwards and downwards) in trying to understand these relationships, it is important to determine why they are actually cyclical and take into account the role of time.

Thus, our explanation focuses on providing an understanding of how perceived risk develops during information search in the digital era with a more dynamic and time-driven perspective. As we mentioned before, this understanding contrasts with traditional theories such as Campbell & Goodstein (2001); Chaudhuri (2000); Cox & Rich (1964); DelVecchio & Smith (2005); V.-W. Mitchell & Papavassiliou (1999); Stone & Grønhaug (1993) that doesn't consider the current consumers' use of digital information sources and the effect of this information on the perception of risk in a purchase situation. Rather, these studies only consider a traditional and non-digital context.

Therefore, the results of this research provide evidence that clarifies that there are contradictory findings in the literature on the relationship between perceived risk and

information search due to the lack of consideration of the role of time in these studies. Thus, to the limited scope conferred to perceived risk by traditional literature that doesn't contemplate it as a process. Moreover, this research suggests that perceived risk unfolds in digital information search as consumers search and evaluate digital and traditional information. Therefore, we find that time has a role in the manner in which consumers experience perceived risk during information search as perceived risk develops and changes as a result of the information collected by consumers in their purchasing processes. Also, this research finds that in digital environments, given that perceived risk unfolds and fluctuates as consumers search for information, the relationship between perceived risk and information search is dynamic during the information search process.

3) Perceived risk and information search relationship in digital environments over time

This research' findings bring a new perspective into the risk literature that helps understanding that in digital environments the relationship between consumers' information search and perceived risk in purchase situations is dynamic. We drive to this conclusion as we find that the information collected by consumers affects the perception of risks and that also this risk perception motivates different strategies of information search in order to manage them. The model of perceived risk processing of Conchar et al. (2004) considers that there are two main and exclusive paths in the relationship between perceived risk and information search: one that sees information search as an outcome of perceived risk and another one that sees information search as an input in the evaluation of perceived risk. For a more detailed analysis of these two paths see page 429 of Conchar et al. (2004).

Our study suggests that in digital environments this relationship is more dynamic and thus, in this context, both perspectives can be complementary rather than exclusive when understanding perceived risk processing during information search. In fact, perceived risk and information search relationship is determined by the interplay between the information collected by consumers and their risk perception over the time of the information search process. Observations from this hermeneutic endeavor in the analysis of consumers'

experiences recognize that during the process of information search and perceived risk consumers use digital and traditional information sources in an integrated manner and iteratively. Examples of this use of multiple information sources during purchase are Monica's website exploration and conversations with her friend, Tim's search in YouTube and his visits to the store and Oliver's readings on blogs and his concern about what others think about his purchase decisions. Moreover, we observe how risk is perceived in different manners. Thus, the multidimensional nature of perceived risk is evidenced in this study.

Also, we find evidence on the dynamic relationship between perceived risk and information search explained by the interplay between initial risk perception, information collected in order to decrease those risks, the emergence of new types of perceived risk from information search activity, and the reduction of other types of risk among others. As we explained above, all this occurring in an interactive manner as consumers move forward in the process of information search through the "progress" and "regression" loops. Moreover, we find that information search from digital and traditional sources occurs interactively and depending on consumers' perception of risk at the five different stages of the process of perceived risk and information search identified in this research. As Grant et al. (2007) point out, digital information sources provide consumers with real-time and easy accessible information allowing consumers to switch between digital and traditional information sources in an interactive manner. Regarding digital channels accessibility, we find that this causes that consumers move around different information sources changing their perception of risk along the process because that information affects the different perception of risks. Thus, this research's findings show that the dynamism in the relationship between perceived risk and information search is the result of the use of the multiple sources of information by consumers in their information search processes that is conducted in an open and dynamic manner; by the manner in which this information affects perceived risk and; by the manner in which those risks perception affects consumers' information search patterns.

Moreover, as we explain further, our findings suggest that in digital environments although information search helps consumers to reduce some types of risk, other types of risk increase and new types of perceived risk emerge. This finding is illustrated by Rachel, the participant purchasing high end garment. She starts searching for information to reduce perceived

performance risk, as she gets information on the web, she realizes that she can actually be scammed on the web. Thus, she engages in additional information search to learn more about dishonest websites. In the end she takes a purchase decision until she reduces all the risks perception to an acceptable level, after having searched in multiple information sources and channels. This explains the dynamic interplay in the relationship between perceived risk and information search as the interplay between information and perceived risk occurs as the process of information search progresses over time. Thus, we find a dual-causal relationship over time between perceived risk and information search in digital environments.

Lastly, the dynamism of perceived risk and information search relationship goes beyond the stage of information search as it shapes the whole purchase decision-making process. Our results highlight that risk has a role in the manner in which consumers take purchase decisions. We see that the perception of the different types of risk varies throughout the process of information search as the digital and traditional information that consumers collect during the process affect those risks perception.

Therefore, our approach that differentiates among stages of the process of information search and perceived risk management offers an appreciation as to why the purchase decision making process becomes more dynamic and cyclic in digital environments. In line with existing literature that asserts that the purchase decision-making process becomes more dynamic and cyclic in digital settings when compared to the more linear and sequential manner in traditional environments (Edelman, 2010; Grant et al., 2007), our research points out that as consumers search for information in order to decrease risk they interact across touchpoints of the customer journey in a dynamic manner.

Ultimately, this research finds that existing constructs in risk literature as well as emerging concepts, relationships and meanings explain the changes in the process of perceived risk and information search as part of the digitalization of the marketing environment. This research goes in depth into the understanding of the elements and relationships that have a role on how perceived risk is transformed by this digitalization. We detail this concepts and relationships below.

4) Summary and concluding proposition

The digitalization of the marketing environments affects the relationship between how consumers perceive risk and how they search for information in the purchasing process. Current theories propose that perceived risk could be studied as a one-spot and isolated point in the information search process and that the relationship between perceived risk and information search occurs in two main and exclusive paths: one that sees information search as an outcome of perceived risk and another one that sees information search as an input in the evaluation of perceived risk (Conchar et al., 2004).

Based on the results of this research work, we propose:

Proposition 1.

During the purchasing process in the information search activity, consumers' perceived risk develops through a process that accompanies the information search activity from the beginning to the end of the purchasing process.

For each stage in this process, different types of perceived risk can emerge. Each instantiation of perceived risk evolves over-time in cyclical patterns affecting the development of the journey towards the purchase decision, with moments of progress, and moments of regression in this journey.

Consumers apply different strategies of information search depending on the different cycles of perceived risks. These strategies integrate digital and traditional information, consider the interplay between obtained information and changes in perceived risk, and manage multidimensional nature of perceived risk.

6.3 On the changes of perceived risk concepts, relationships and meanings as part of the digitalization of the marketing environment

Our findings provide a better understanding on how the changes in the process of perceived risk processing and information search can be explained as part of the digitalization of the marketing environment. We find that the manner in which perceived risk changes and unfolds during the process of information search in digital environments is explained by constructs that are familiar in risk literature such as: trust (Boyd, 2002; Kim, Ferrin, & Rao, 2008); Key reference points (Bettman et al., 1998; Tversky & Kahneman, 1992); User Generated Content (Berthon et al., 2012; Kaplan & Haenlein, 2010) and social risk (Eisingerich & Bell, 2015; Mandel, 2003). However, given the new context, they interact with risk in particular ways that we analyze below. Those concepts and relationships are:

- The manner in which trust develops and is constructed by consumers as they search and collect information at traditional and digital channels
- The manner in which the use of key reference points affects perceived risk throughout the process of information search
- The role of user generated content
- The role of social risk

1) Trust in digital information develops through the process of information search

One of the first ideas that emerged in our findings is the concept of trust. Yet Kim, Ferrin, & Rao (2008) and Mou (2015) conceptualize trust as having a role in solving problems related to risk perception. We find that trust has a significant role in the manner in which consumers perceive risk during the process of information search when it comes to perceived financial and performance risk.

Moreover, Conchar et al. (2004) argue that risk information search helps in risk editing, the action of sorting and reducing the choice set until a manageable choice options are identified,

during risk framing (Kahneman & Tversky, 1979). Risk framing is considered as the initial phase of risk processing in the framework of Conchar et al. (2004). However, we find that consumers experience lack of trust in digital information that causes increases in perceived performance risk at phase two of initial information search. Thus, this prevents consumers of advancing and editing their choices.

We find that this lack of trust is a result of consumers' perception of absence of a human embodiment in digital information and also by a lack of physical contact which encourages senses of belonging to consumers. For instance, as Monica explains at her first interview, she didn't like online shopping as she thought she couldn't contact someone online to request warranties.

Moreover, in agreement with Mou (2015) our results evidence that as consumers advance in the information search process trust in digital information improves and thus digital information reduces perceived performance risk. For instance, when Rachel in stage 2, is able to reduce her performance risk perception by watching videos of other consumers on Youtube.

Without considering the role of trust, Li, Daugherty, & Biocca (2003) assert that consumers learn better about products' experience attributes by direct contact and that this contact reduces the amount of risk. Our findings, however, put in evidence that information coming from trusted and experienced sources (i.e. expert reviewers) are better at reducing perceived performance risk than the information directly obtained at the store (i.e. sales-personnel advices) as Oliver mentions about the lack of expert reviewers at stores. In fact, consumers state that this is the case because they get better information from the extended use and experience of others, which is available on the web, than from their own limited contact at the store, which doesn't provide them with information from extended use and experience. Thus, according to our study trust is developed through the time of information search.

Moreover, our study finds that not always direct contact with tangible and moderate to high involvement products is the best way for consumers to reduce perceived performance risk. Instead, we discover that indirect experiences such as online reviews are more efficient ways to reduce perceived performance risk, enough to allow consumers to take purchase decisions.

Ultimately, from our results it seems that trust determines whether indirect experience in digital environments is more efficient in reducing perceived performance risk than direct experiences at physical stores.

Additionally, whilst trust literature supports the notion that trust is weakest at initial interactions, growing stronger over time and repeated interactions (Boyd, 2002), we interpret that the development of trust in digital information through the process of information search is also explained by a learning process. In this research, this process consists on learning about brands and websites that makes consumers get familiar with the digital information and increase trust. Also, this learning process is a result of the repeated interactions with both traditional sources such as interactions with close friends and with digital sources (i.e. websites, online reviews) whose easy accessibility promotes and develops trust. According to Berthon, Pitt, Plangger, & Shapiro (2012) and Boyd, (2002) communities are created by user-generated content and they depend on mutual trust. Our results suggest that consumers use cues such as reviewer's referral or realistic pictures, to determine which information about product performance is reliable or not and determine trust as it can be seen in table 6 in Brian's verbatim of his experience buying high range sneakers. Thus, these cues regulate whether to adopt that information in order to reduce perceived risk.

Summarizing, we learn that consumers are able to develop trust during the time of information search process by using key reference points (i.e. friend's advice) and by learning from the interactions that they observe and engage with at digital channels. Our study suggests that trust is what consumers rely on to decrease risk.

Moreover, trust in digital information such as reviews is found to be developed when consumers share meanings and values with people on the web. We are reminded of Boyd (2002) research that argues that trust itself arises when a community shares a set of moral values that allow members to anticipate and comply with their expectations. In fact, our findings point out that in order to trust, consumers seek for information that is created and shared by consumers and not brands and this is developed though time.

2) **The use of key reference points**

Prospect theory (Tversky & Kahneman, 1992) and constructive consumers' choice process theory (Bettman et al., 1998) point out that consumers take decisions by comparing their outcomes with references. This implies principles of human perception (Bettman et al., 1998) when taking decisions. These studies point out that individuals' perception are attuned to noticing changes rather than absolute magnitude of stimuli and that outcomes will naturally be coded as gains or losses relative to some reference point.

Conchar et al. (2004) consider the influence of references on perceived risk processing and define them as benchmark positions against which possible outcomes are compared (i.e. past experience, ideal outcomes, social references, market information). Also, the study conceptualizes references as internal and external information that consumers use in processing perceived risk.

Our findings provide explanation on how consumers use key reference points in digital contexts when managing risk. We find that as Conchar et al. (2004) and Bauer (1960) assert, consumers use a multiplicity of reference points in their efforts to reduce perceived risk. However, our results agree with Anderl, Hendrik, & Kunz (2016) and go beyond the framing stage pointed out by (Conchar et al., 2004) as the stage when this occurs. From our findings it appears that the use of key reference points takes place during the whole process of information search intensifying in the stages that are characterized by consumers' analysis of information such as advanced information search and preparation for purchase decision. Moreover, building on findings of Chen et al. (2016) our findings suggest that references coming from other individuals seem to be more prominent in digital environments than in traditional information search specifically in these stages. The interpretation we give to this result is that references are used by consumers as benchmarks to compare and contrast the information collected earlier in the process. For instance, as our results point out at advanced information search participants don't fully trust on the information from digital channels and thus, ask friends that are easily reachable at digital sources, about that information.

Ultimately, it seems that consumers construct their search path by searching for information, using key reference points and reducing the risks that they have perceived throughout the

process and even after choice in a dynamic manner. Our findings support Bettman et al. (1998) notion that consumer choice is inherently constructive and Tuu et al. (2011) in the understanding of risk taking into account the context. In fact, by contextualizing perceived risk in digital search environments it appears that given the multiplicity of information sources, consumers construct their strategies based on information that is contrasted with key reference points in a dynamic manner. Moreover, the use of key reference points appears especially relevant at reducing social risk perception (i.e. social expectations and groups' references) in the digital context.

Therefore, our study contextualizes and complements Conchar et al. (2004) approach of perceived risk evaluation in that consumers take into account key reference points to decide whether or not to engage in decisions given a certain level of risk. Thus, citing Conchar et al. (2004, p. 431) regarding the question that consumers ask themselves of "*Is this choice, given the risk I believe it entails (i.e. the value of perceived risk), worth the amount of energy/effort it will entail?*", we suggest adding that consumers can ask to their key reference points to answer that question.

3) The Role of user generated content

Linked to the idea of peer to peer interactions on the web we deepen into the role of user generated content in perceived risk. Perceived risk in purchase contexts has been approached in existing literature from the perspective of firm to customer communication flow (Chaudhuri, 2000; Stone & Grønhaug, 1993). Once again, this perspective lacks the consideration of the change in paradigm in firm to consumer communications, power and value creation due to the digitalization of the marketing environment (Berthon et al., 1996; Edelman, 2010; Grant et al., 2007; Peterson & Merino, 2003). Moreover, we see limitations in risk literature as it has focused mainly on consumers' perception about online retailers and their credibility, leaving behind the role of the information coming from user generated content in managing risk. Thus, the influence of user generated content on perceived risk in purchase situations has been overlooked.

Furthermore, Haubl & Trifts (2000) and Swaminathan (2003) contribute to literature suggesting that interactive decision aids such as recommendation agents and comparison matrix have a role in decreasing perceived financial risk and decision quality. We advance in this line disclosing that user generated content influences how consumers search and manage risk in digital information search. Our findings provide evidence on how consumer to consumer interaction on the web is able to decrease perceived performance, social and financial risk as long as the sources of information are trusted.

4) The role of social risk

According to Bettman et al. (1998) when consumers make choices they seek to achieve goals that are constructed depending on the situation and context. Moreover, Bettman et al. (1998) assert that typical goals in a purchase context are; maximizing the accuracy of a decision, minimizing the cognitive effort required for the decision, minimizing the experience of negative emotion while making the decision, or maximizing the ease with which a decision can be justified. These are called metagoals in Bettman's et al. (1998) study.

In terms of social risk, constructive consumers' choice processes theory by Bettman et al., (1998) suggests that when consumers perceive social risk, they seek to take decisions by minimizing effort and maximizing the accuracy of decisions. Our study suggests that this assumption depends on the stage of the process of information search and perceived risk processing.

We find that at initial stages of information search consumers invest cognitive effort to minimize social risk. This effort is observed in consumers' investments of time and effort in order to search in multiple sources and contrast information. For instance, one participant admits he is working hard to take a good purchase decision at advanced information search stage. However, we find that as consumers get close to the final decision, (i.e. stage 5 of our findings) consumers decrease cognitive effort (i.e. searching, comparing and searching again) and resort to trust close friends in order to decrease social risk. Thus, trusting close friends is used as a mechanism of social risk and cognitive effort reduction as Bettman (1979) suggests.

We interpret these findings by considering the fatigue that the process of information search causes to consumers when they are dealing with risk when purchasing moderate to highly involvement products. In fact, our participants show fatigue since stage 4 of preparation for purchase decision and thus, use friends' advice in order to reduce risk and take a purchase decision.

Thus, our findings suggest a new perspective on Bettman's et al. (1998) metagoals of choice with the current consumers' use of digital information. Our results provide evidence of consumers' goals that depend on the stage of the search process in purchase situations. Namely, we find that social risk is persistent during information search and that consumers seek to reduce it using strategies that depend on the stage of information search. Therefore, we find that another relevant metagoal in consumers' decision-making, specifically in information search is *minimizing perceived social risk originated from a purchase decision*.

Ultimately, our study highlights that as consumers rely on others and as there is a multiplicity of risk types, social risk becomes more relevant in digital environments. This research puts in evidence that consumers are more concerned about the opinion of others in digital environments as they and their purchase decisions are more exposed on the web. Thus, as we point out in our findings, social risk has its particular way of affecting consumers' perception and behavior when they are dealing with risk in a purchase situation in digital environments. In addition, our study goes beyond literature that points out that the Internet facilitates consumers' participation and peer to peer interaction (Fortini-Campbell, 2001) evidencing that these interactions actually cause the creation of communities that have a role on perceived risk in digital environments.

5) Summary and concluding proposition

Thus far, we have analyzed how the digitalization of the marketing environment has changed the manner in which consumers perceive risk during the process of information search. This research finds that there are changes in trust, the use of key reference points, user generated content and social risk perception that explain these changes. As we state before, these

constructs and relationships have been considered and are related with perceived risk in traditional literature. However, the digitalization of the marketing environment has transformed the role of these constructs in consumers' risk perception in the process of information search.

Along with the analysis of the changes in trust, the role of key reference points, the role of user generated content and social risk perception; this research also discusses about the new concepts that emerge in the analysis of consumers' stories about their information search process and perceived risk.

Based on the results of this research work, we propose:

Proposition 2.

During the purchase process in the information search activity, perceived risk by consumers is affected by different characteristics like, Trust, Key references points, User generated content, and Social risk. In the digital environment, each one of these characteristics presents specific behavior generated by the new digital environment.

Proposition 2.1. Trust

Although consumers perceive the absence of human embodiment in digital environment, information coming from online reviews based on trusted and experienced sources supplies information of human embodiment. To make this transfer effective, consumers must follow a learning process to identify those trustworthy sources. In most cases, consumers find and constructs communities that match their perception and values.

Proposition 2.2. Key reference points

In digital environment, the use of key reference points by consumers takes place during the whole process of information search. And in this environment references coming from other individuals seem to be more prominent than in traditional settings. In fact, by contextualizing perceived risk in digital environments it appears that given the multiplicity of information

sources, consumers construct their strategies based on information that is contrasted with key reference points in a dynamic manner.

Proposition 2.3. User generated content

In digital environment, User generated content plays a differentiated role compared to traditional settings. Consumer to consumer interaction on the web is able to decrease perceived performance, social and financial risk when the sources of information are trusted. In some cases, information coming from reviews could be more effective in reducing perceived performance risk than physical inspection at stores.

Proposition 2.4. Role of Social Risk

In digital environment, social risk is persistent during information search and consumers seek to reduce it using strategies that depend on the stage of information search.

As consumers rely on others and as there is a multiplicity of risk types, social risk becomes more relevant. Social risk has its particular way of affecting consumers' perception and behavior and these interactions actually cause the creation of communities that have a role on perceived risk mitigation.

6.4 On emerging concepts, relationships and meanings in perceived risk processing during information search in digital environments

In addition to the changes in trust, key reference points use, user generated content and social risk that affects perceived risk, this research discovers that as a consequence of the digitalization of the marketing environment new concepts, relationships and meanings also explain the manner in which perceived risk is transformed by the current use of digital information sources. The emerging concepts, relationships and meanings that this research finds as affecting perceived risk in digital search environment are:

- An association relationship between perceived financial risk and perceived performance risk
- The discovery of mechanisms of risk reduction in digital channels
- The emergence of new types of perceived risk

1) Association relationship between perceived financial risk and perceived performance risk

By analyzing in depth consumers' narratives we find that perceived financial risk affects the extent to which consumers are concerned about the expected product performance and fit, namely perceived performance risk. Studies on risk such as Forsythe & Shi (2003); Hirunyawipada, Tanawat Paswan (2006); Liao et al. (2010); V. Mitchell (1999); Murphy & Enis (1986); Schmidt & Spreng (1996); Stone & Grønhaug (1993) identify and differentiate these two typologies of perceived risk. In addition, they study the role of the different types of risk in purchase behavior. However, although these studies advance in the understanding of perceived risk, they evaluate risk categories in a separate manner and not as related constructs. Thus, we are not aware of studies analyzing the relationship between two or more types of risk in purchase contexts. Our findings, suggesting that the higher the financial risk perception the higher performance risk perception and vice versa (See Monica's narrative), give rise to consider an association between perceived financial risk and perceived performance risk towards the theorizing process of risk in digital information search.

2) Discovery of mechanisms of risk reduction in digital channels

Another insight that arises from our study is the manner in which consumers find mechanisms of risk reduction that are particular to digital environments. As our findings in Oliver's narrative point out, during information search consumers discover information that is used as mechanisms of risk reduction in digital sources. For instance, we learn that at phase two and three of initial and advanced information search consumers discover financing options and possibilities to re-sell products that are particular to digital channels. We find that these

mechanisms reduce perceived financial risk and allow consumers to advance in the loops that link the five phases of information search and risk management.

Previous research advances in analyzing perceived risk by risk types and finds that consumers perceive risk during the customer journey. For instance Cunningham, Gerlach, Harper, & Young (2005) emphasize perceived performance risk during information search stage and perceived financial risk only at the moment of purchase and also that perceived risk is higher in digital environments in the services contexts. Biswas & Biswas (2004) suggest that perceived financial risk is higher in digital environments due to the buyer's inability to interact directly with the seller and also due to apprehensions about the credibility of the seller. Moreover, that study finds that retailers' signals have stronger effects on perceived performance and financial risk in digital environments over traditional environments. Finally, Mandel (2003) supports the notion of a cushion thesis when it comes to perceived financial risk. Cushion thesis states that through increases of awareness of family and friends, perceived financial risk decreases as the people around the consumer provides a cushion in the case of financial loss. Thus, by activating the personal trait of the "*interdependent self*" (Bernritter, Loermans, Verlegh, & Edith, 2017; Mandel, 2003) which depends on the context and where one's status depends on membership in a larger social group, consumers are able to decrease perceived financial risk.

Our study provides new insights on how consumers perceive financial risk and how they behave in order to diminish it during information search in digital contexts. First, from our results it appears that cushion theory works for traditional and digital settings. However, we observe that in digital environments the cushion becomes wider as consumers can access to a higher number of people and base their relationship with these people on common interests and not only on physical proximity.

Second, information search is not a one-step stage of the purchase process when consumers deal with perceived risk. We disclose five different phases of perceived risk processing during information search and find that perceived financial risk increases and is diminished

through this multistage process. Thus, financial risk perception fluctuates upward and downward as consumers search for information.

Third, we supplement previous risk literature by providing with a more detailed understanding as to why risk fluctuates as we elucidate that there are mechanisms of perceived financial risk reduction that consumers use in their purchase process and that are particular to digital channels. As we explain, in stage 2 consumers verbalize they discover possibilities to finance their purchase. For instance, through reselling products on the web. Thus, although we support previous research on the fact that in digital environments a buyer's inability to interact directly with the seller cause financial risk perception (Biswas & Biswas, 2004), we identify that consumers also find in this media ways to decrease financial risk perception and advance in their purchase processes by engaging in more information search. That's to say that in digital environments the impossibility to physically inspect products encourages information search that results in the discovery of ways to decrease perceived financial risk.

Another finding of our study is that as consumers engage in information search, despite perceiving financial and performance risk, they advance in the process due to the hedonic value they find in the product during information search. The positive influence of hedonic value when there is risk involved in online purchasing is proven also in the work of Chiu et al. (2014).

Furthermore, we find that the mechanisms of perceived financial risk reduction are possible thanks to the change in paradigm that is accepted in emerging literature (Berthon et al., 2012; Edelman, 2010) with regards of the changes in locus of value and power between firms and consumers. We provide evidence on how consumers interact with each other through digital channels and how these interactions generate information that is able to decrease consumers' risk perception in purchase situations. In this vein, we support and confirm Mandel's (2003) theory of cushion and Bernritter's et al. (2017) findings on the way consumers participate in endorsing brands online. We find that consumers activate their interdependent self by searching for information and sharing experiences with others on the web. We observe that consumers look for their communities on the web where they share meanings and values in order to decrease risk. Moreover, we interpret that peer to peer interaction on the web is able

to reduce perceived financial risk as opportunities to recover potential losses is perceived by consumers as easier to do in digital channels as trade (i.e. re-selling the product to other consumer) between consumers is possible and is an option to recover financial losses on the web. Thus, other consumers on the web act as a cushion for consumers when dealing with perceived financial risk.

3) Emerging types of perceived risk

Another finding that help us better understand how and why consumers experience moments of regression in the loops of perceived risk and information search, is the discovery of emerging types of perceived risk of digital environments. Our results suggest that despite digital information is able to decrease perceived risk, consumers also experience the discovery of emerging types of perceived risk at phase three of advanced information search that relapse them in their purchasing journeys.

Previous literature has advanced in examining how traditional types of risk behaves in digital environments. For instance, Chiu, Wang, Fang, & Huang (2014) and Forsythe & Shi (2003) focus on understanding how traditional types of perceived risk affect purchase behavior in online shopping settings. Additionally, Kim et al. (2008) suggest that due to perceived risk consumers are reluctant to purchase online and thus, prefer to go to brick-and-mortar stores where they can touch and try products in a physical manner. The study of Kim et al. (2008) focuses on transaction risks such as providing substantial personal information (i.e. address, phone number, confidential credit card information) in online stores websites.

However, studies going beyond the testing or application of offline-types of perceived risk in digital environments are scarce and few (Grant et al., 2007). Therefore, our study is directed towards uncovering the profile of perceived risk in digital environments. We provide insights on how risk behaves in digital environments discovering new types of perceived risk and explaining their particular performance in the digital era.

Our results suggest that despite consumers perceive risks in digital environments and that in some cases they still prefer the physical store to evaluate products with experience-types attributes, they do purchase online. Moreover, regardless of whether they purchase on digital stores or at brick-and-mortar stores in the end of their purchase process, their search activity in digital environments and the risks they encounter and manage during that stage are found to shape their purchase decisions.

Our findings disclose emerging types of perceived risks that are particular to digital environments. In fact, our results provide evidence that as consumers engage in information search in order to decrease risk, for instance, due to the impossibility to physically inspect products' experience attributes new types of perceived risk emerge. In fact, these emerging types of perceived risk are not necessarily a result of the lack of physical inspection. Thus, we suggest that perceived risk and information search dynamic goes beyond the need to try on and physically inspect products. That is, consumers seek to reduce diverse types of perceived risk, different from performance risk type, that emerge during the process of information search and that are particular to digital environments. These types of perceived risk are a) perceived risk of fraud, b) perceived risk of product loss or damage, c) perceived risk of not using the product in the end and d) perceived risk of having to engage in a return process, among others.

4) Summary and concluding proposition

In summary, we provide new insights about how perceived risk operates in digital environments by discovering that perceived risk typologies and particularities in digital environments are different from those of risk in traditional environment. These findings go beyond the understanding of the manner in which traditional typologies of risk affect consumers using digital information as they provide an explanation on the specific characteristics of perceived risk in digital environments. Ultimately, these characteristics of association relationship between perceived financial risk and perceived performance risk, the discovery of mechanisms of risk reduction in digital channels and the emergence of new types of perceived risk explain how perceived risk operates in the current digital era.

Based on these findings of this research work, we propose:

Proposition 3.

In digital environments, perceived risk presents new concepts, relationships and meanings to explain the manner in which it is transformed by the effect of digital information obtained in the purchase processes. At least, the following aspects have to be taken into consideration to understand these effects: a) An association relationship between perceived financial risk and perceived performance risk, b) The discovery of mechanisms of risk reduction in digital channels, and c) The emergence of new types of perceived risk.

Proposition 3.1. An association relationship between perceived financial risk and perceived performance risk.

Towards the theorizing process of risk in digital information search, we propose to consider an association between perceived financial risk and perceived performance risk. Perceived financial risk affects the extent to which consumers are concerned about the expected product performance and fit, namely perceived performance risk, in the sense that the higher the financial risk perception the higher performance risk perception and vice versa.

Proposition 3.2. The discovery of mechanisms of risk reduction in digital channels.

Although current literature suggests that perceived financial risk is higher in digital environments due to the buyer's inability to interact directly with the seller and also due to apprehensions about the credibility of the seller, consumers can find new mechanisms of risk reduction that are particular to digital environments.

The following mechanisms could be proposed:

Proposition 3.2a. Widening the cushion effect

In digital environments the cushion produced by awareness of family and friends to reduce perceived financial risk, becomes wider as consumers can access to a higher number of people and base their relationship with these people on common interests and not only on physical proximity.

Proposition 3.2b. Multistage process in the relationship between information search and risk perception

In digital environments, information search is not a one-step stage of the purchase process when consumers deal with perceived risk. Different phases of perceived risk processing during information search could be proposed. Perceived financial risk increases and diminishes through this multistage process. Thus, financial risk perception fluctuates upward and downward as consumers search for information.

Proposition 3.2c. Hedonic effect in the information search process.

In digital environments, despite perceiving financial and performance risk, consumers engage in information search due to the hedonic value they find in the product during information search. Mechanisms of perceived financial risk reduction are possible thanks to the change in paradigm that moves from the firm to the collective of consumers on the Web when it comes to value creation and power. Consumers activate their interdependent self by searching for information and sharing experiences with others on the web.

Proposition 3.3. The emergence of new types of perceived risk.

In digital environments, due to the new types of information and new information sources used to search for information about products, consumers encounter new types of perceived risks particular to the digital era. These types of perceived risk are : a) perceived risk of fraud; b) perceived risk of product loss or damage; c) perceived risk of not using the product in the end; and d) perceived risk of having to engage in a return process.

Proposition 3.3.a The emergence of perceived risk of fraud

In digital information search, a perceived risk of fraud emerges as consumers search for information and deal with risk in digital environments due to the proliferation of sources of information and sellers. This new type of perceived risk causes an increase in information search activity and the use of key reference points.

Proposition 3.3.b The emergence of perceived risk product loss or damage

During information search in digital environments, consumers perceive a new type of risk related to losing the product they are considering to purchase. This perceived risk of product

loss or damage increases information search activity because they search for information related to warranties and insurance services on the web in order to decrease this emerging risk perception.

Proposition 3.3.c The emergence of perceived risk of not using the product in the end

This particular emerging type of perceived risk is related to the impulse of purchasing too many items on the web described by participants. Thus, in digital information search, consumers perceive an emerging type of risk of not using the product if they conduct the purchase.

Proposition 3.3.d The emergence of perceived risk of having to engage in a return process

In digital environments, consumers perceive an emerging type of risk related with losing time, effort or money in the case they have to engage in a return process. Thus, this type of perceived risk boosts information search activity directed toward decreasing the probabilities to engage in a return process by making the correct purchase decision.

6.5 Relationships on the model of perceived risk processing and propositions: Towards the development of theory

Having iterated between reading the participants' narratives, identifying recurrent meanings and analyzing the rich description of the phenomenon, we continue with the phenomenological and hermeneutic inquiry course by analyzing the findings under the lenses of our theoretical framework of perceived risk in order to fusion the horizons between our frame of reference and the text that we are interpreting. This builds on Goulding (2005); Mick & Demoss (1990) and Thompson (1997) phenomenological process principles.

This angle of analysis enable us to think at a higher level of abstraction as pointed out by Goulding (2005) when conducting phenomenological research, that allows us to have an appreciation for the manner in which consumers handle risk to prepare for purchase during

information search, now that consumers use both digital and traditional information. Thus, we are able to understand the differences between the traditional model of perceived risk processing of Conchar, Zinkhan, Peters, & Olavarrieta (2004) and our findings that allow us to propose new relationships, concepts and meanings that result from contextualizing perceived risk during information search in the current digital environment. Therefore, considering the digitalization of the marketing environment and its effects on the way consumers handle risk and search for information.

Our findings suggest new concepts, relationships and meanings in the current model of perceived risk processing that explain the dynamism in the relationship between information search and perceived risk in digital environments.

These relationships that we explain are:

- The dynamic relationship between risk importance and information search
- The dynamic relationship between information search and perceived risk

Thus, having deepened in the analysis of the concepts identified in the study as determinants in the way consumers perceive and manage risk during information search in digital environments, we conduct a reasoning of the current model of Conchar et al. (2004). All this, as new insights emerge from our study.

1) Dynamic relationship between risk importance and information search

Conchar et al. (2004) consider that risk importance, defined in the study as a subjective weight system that reflects the importance of avoiding losses on a set of choice alternatives (Conchar et al., 2004 p. 421) and information search affect risk editing. Risk editing is understood in Conchar et al. (2004) as the sorting and reduction of the consideration set. This perspective proposes that at early stages of risk processing consumers prepare the scenario for managing risk. Moreover, the framework assumes that consumers perceive different types of risk with their different intensities or importance only at the beginning of risk processing and without any influence of information search or interaction with information. Our findings

suggest a more dynamic relationship between risk importance and information search now that consumers use digital information sources to acquire information in purchasing processes. Thus, the mitigation of risk types and the increase or emergence of new types of perceived risk depend on the specific stage in information search – risk management process. During this process consumers move from one stage to the other perceiving risk and searching for information in the progress or regression loops that we explain above.

This can be observed in table 11 and Rachel’s narrative of findings where in the cases that consumers perceived performance risk at stage 1, then increased that risk perception due to lack of trust in digital information at stage 2, but were able to reduce that risk at an acceptable level in stage 4 as a result of the information search activity conducted in stage 3. Those cases provide evidence on the interaction between perceived performance risk and information search that occurs throughout the process of information search and not only at initial stages of search.

Ultimately, the process of information search and risk management in the digital era seems dynamic and it is characterized by these loops that determine risk editing. Risk editing is defined as the action of advancing in consumers’ purchase process, reducing the consideration set as consumers are able to handle risk (Conchar et al., 2004; Kahneman & Tversky, 1979).

On the one hand, we find that consumers change the importance weights of the different types of risk at the different stages that we identify. We find that they are influenced by the information they collect during the process of information search. For example, as table 11 shows, when consumers change their initial perception of financial risk in stage 2 and 4, as a result of the information collected during stage 2 and 3 (i.e. discovery of financing options). More specifically, this research finds that consumers interact between perception of different typologies of risk, information search activities and information coming from traditional and digital sources in a dynamic manner during the 5 stages identified in this study.

On the other hand, our findings suggest that consumers respond to risk perception by building their search processes. For instance, as table 12 shows, when a consumer perceives emerging perceived risk of fraud at stage 3, she or he seeks to reduce it by a specific search activity dedicated to the risk of fraud in stage 4. This research provides empirical evidence that shows

that the different perception of risks and their different intensities along the information search stage, also affect the manner in which consumers search for information. This includes, the sources they select, the type of content (eWOM, blogs, Youtube unboxing videos) or the moment in the information search stage that they search or analyze information.

Therefore, the propositions to the current model are:

Proposition 4. Dynamic relationship between risk importance and information search

During the process of information search in digital environments, we propose that the interaction between risk importance and information search is dynamic, specifically that external information search actively affects risk importance and that risk importance affects external information search.

Proposition 4.1. External information search actively affects risk importance

External information, understood as the information from the integrated digital and traditional sources, affects the weights of risk perception several times and in different ways during the information search process of the customer journey.

Proposition 4.2. Risk importance affects external information search

We find that the perception of risk that is determined by the perception of different types of risk at different intensities, shapes information search patterns in the digital age.

2) Dynamic relationship between perceived risk and information search

Our research also suggests that there is a dynamic relationship between attention to risk consideration set, which leads to perceived risk and information search. Attention to risk consideration set is defined as *the focus on the important risk-related issues, references for assessment of risk, and the consideration set of choice alternatives relevant to perceived risk processing* (Conchar et al., 2004 p.422). Conchar et al. (2004) point out that after consumers

deal with the different types of risk by searching for information, that is risk framing, consumers reach an outcome of this process that gives rise to perceived risk. Conchar et al. (2004) assume that after consumers complete this initial phase of risk framing, personal characteristics influence perceived risk. Unlike this sequential assumption, our study suggests that personal characteristics and context affect the manner in which consumers search for information since the beginning of their information search process in a dynamic way. Thus, information search is actively affected and shaped by perceived risk during the development of the dynamic loops of risk processing and information search. And also, information search assists consumers when dealing with risk. Thus, information search affects perceived risk in digital environments.

On the one hand, as we explain before, as consumers search for information some types of perceived risk are reduced but new types of perceived risk can emerge and thus consumers engage in more information search. As information is able to reduce or increase the perception of the different types of risk in digital environments, we see that external information search affects the perception not only of the different dimensions of risk, but to the overall risk that consumers perceive. This risk perception affects the actions consumers make during information search. Thus, information search activity affects consumers' attitudes towards risk.

For instance, as narratives show in findings, Monica doesn't trust on digital information to reduce perceived financial risk at initial stages. However, as she engages in information search in digital channels and through key reference points in stage 4, her believes that digital channels don't offer the same warranties than brick-and-mortar stores change. This change in her perception allows her to reduce perceived risk through learning and developing trust. All this occurring during the interaction of information search and risk perception during stage 1, 2, 3 and 4.

One the other hand, as consumers construct their search strategies and path as a response to their risk perception, this research provides evidence on the effect that perceived risk has on information search behavior. For instance, the case of Tim shows that he searches for information by resorting to his key reference points in order to reduce his emerging risk perception of product damage or loss.

Thus, we propose that information search and perceived risk have a dynamic relationship that is manifested throughout the 5 stages of perceived risk and information search, in the specific relationships of risk importance and external information search on the one hand, and of external information search and attention to risk consideration search, that is perceived risk.

Therefore, the propositions to the current model are:

Proposition 5. Dynamic relationship between information search and perceived risk

During the process of information search in digital environments, there is a dynamic relationship between perceived risk and information search that causes that consumers advance in their information search phase of the customer journey by overcoming dynamic loops of information search and perceived risk.

Proposition 5.1. External information search affects perceived risk

External information search affects the perception not only of the different types or dimensions of risk, but to the overall risk that consumers perceive. Risk that affects the actions consumers make during information search.

Proposition 5.2. Perceived risk affects external information search

Information search and perceived risk have a dynamic relationship that is manifested throughout all stages of perceived risk and information search process.

Table 18 summarizes these propositions.

Table 18. Summary of propositions

Finding	Propositions	Sub-propositions
<p>On the nature of perceived risk and the relationship with information search</p>	<p><i>Proposition 1.</i></p> <p><i>During the purchasing process in the information search activity, consumers’ perceived risk develops through a process that accompanies the information search activity from the beginning to the end of the purchasing process.</i></p> <p><i>For each stage in this process, different types of perceived risk can emerge. Each instantiation of perceived risk evolves over-time in cyclical patterns affecting the development of the journey towards the purchase decision, with moments of progress, and moments of regression in this journey.</i></p> <p><i>Consumers apply different strategies of information search depending on the different cycles of perceived risks. These strategies integrate digital and traditional information, consider the interplay between obtained information and changes in perceived risk, and manage multidimensional nature of perceived risk.</i></p>	
<p>On the changes of perceived risk concepts, relationships and meanings as part of the</p>	<p><i>Proposition 2.</i></p> <p><i>During the purchase process in the information search activity, perceived risk by consumers is affected by different characteristics like, Trust, Key references points, User generated content, and Social risk. In the</i></p>	<p><i>Proposition 2.1 on trust (page 232)</i></p> <p><i>Proposition 2.2 on key reference points (page 232)</i></p>

<p>digitalization of the marketing environment</p>	<p><i>digital environment, each one of these characteristics presents specific behavior generated by the new digital environment.</i></p>	<p><i>Proposition 2.3 on User Generated Content (page 233)</i></p> <p><i>Proposition 2.4 on social risk (page 233)</i></p>
<p>On emerging concepts, relationships and meanings in perceived risk processing during information search in digital environments</p>	<p><i>Proposition 3.</i> <i>In digital environments, perceived risk presents new concepts, relationships and meanings to explain the manner in which it is transformed by the effect of digital information obtained in the purchase processes. At least, the following aspects have to be taken into consideration to understand these effects:</i></p> <ul style="list-style-type: none"> <i>a) An association relationship between perceived financial risk and perceived performance risk, b) The discovery of mechanisms of risk reduction in digital channels, and</i> <i>c) The emergence of new types of perceived risk.</i> 	<p><i>Proposition 3.1 on the association relationship between perceived financial risk and perceived performance risk (page 240)</i></p> <p><i>Proposition 3.2 on the discovery of mechanisms of risk reduction in digital channels (page 241)</i></p> <p><i>Proposition 3.3 on the emergence of new types of perceived risk (page 242)</i></p>
<p>Relationships on the model of perceived risk processing and propositions.</p>	<p><i>Proposition 4.</i> <i>During the process of information search in digital environments, we propose that the interaction between risk importance and information search is dynamic,</i></p>	<p><i>Proposition 4.1. External information search actively affects risk importance</i></p>

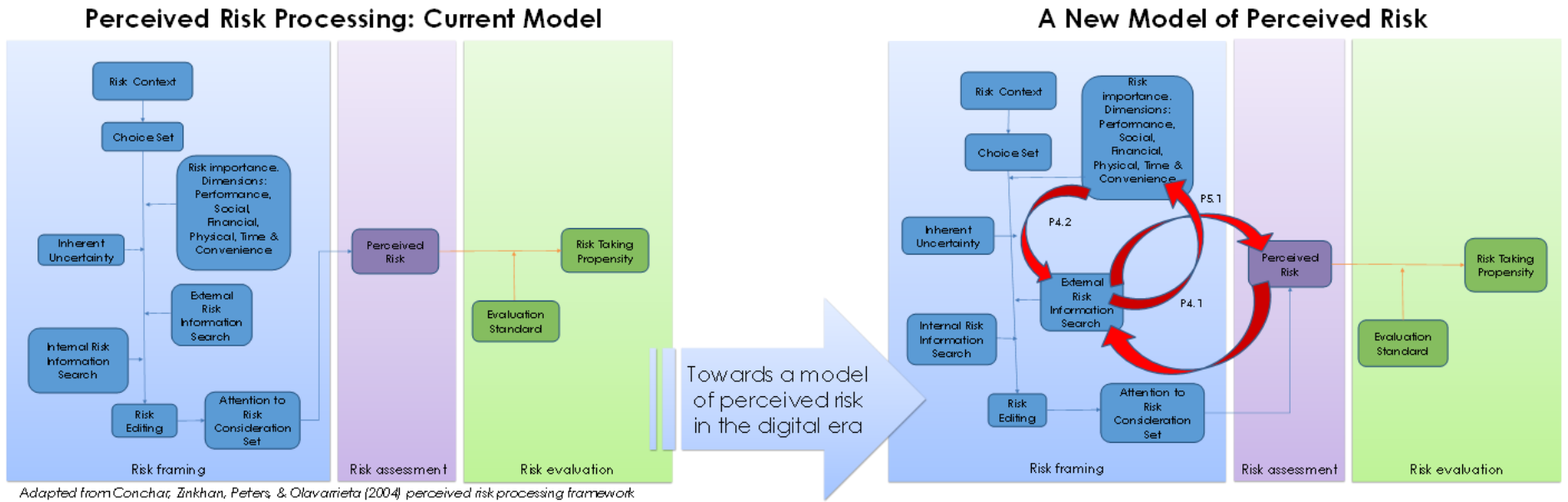
<p>1) There is a dynamic relationship between risk importance and information search</p> <p>2) There is a dynamic relationship between perceived risk and information search</p>	<p><i>specifically that external information search actively affects risk importance and that risk importance affects external information search.</i></p> <p><i>Proposition 5. During the process of information search in digital environments, there is a dynamic relationship between perceived risk and information search that causes that consumers advance in their information search phase of the customer journey by overcoming dynamic loops of information search and perceived risk.</i></p>	<p><i>Proposition 4.2. Risk importance affects external information search</i></p> <p><i>Proposition 5.1. External information search affects perceived risk</i></p> <p><i>Proposition 5.2. Perceived risk affects external information search</i></p>
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3) Representation of propositions on the model

Below, we present the current model of perceived risk by Conchar et al. (2004) and the propositions that results from our findings. As this figure shows, the different risk perception types with the corresponding importance, affect how consumers search for information. At the same time, as consumers conduct search activity, the perception and importance of the different types of risk change as a result of the information consumers collect. This includes the sources of the information, the trust they have on the information or the influence some types of information sources have on their perception of risk.

Moreover, figure 11 illustrates that perceived risk during information search affects consumers' search activity. As a result, consumers construct their search path that ultimately has a perceived risk outcome. All this occurring in an interactive manner during the information search stage of the customer journey.

Figure 11. Propositions towards a New Model of Perceived Risk in the Digital Context



6.6 Conclusion of discussion

By viewing the digitalization of the marketing environment and its effects on perceived risk during information search from a process-driven perspective, we uncover how consumers perceive and handle risk during information search to progress in their purchase decision-making processes in digital environments.

Our results show that in digital environments the purchase decision-making process is constructed by searching for information and processing risk. Thus, as figure 12 shows later we conceptualize perceived risk in digital environments as a set of processes and interactions rather than a one-shot event. Accordingly, our study discloses five stages during the search stage of the customer journey that enable us to observe the dynamics of information search process and perceived risk processing in digital environments. Our findings that explain that perceived risks fluctuate and change over the process of information search, shed light on why there are contradictory findings in the literature on the expected relationship between perceived risk and information search. That is, by understanding perceived risk as a process we make clear that perceived risk can't be measured at an isolated point in time as it unfolds along a process.

Analyzing our findings from the lenses of our theoretical framework of perceived risk we agree with theories of constructive consumers choice processes of Bettman et al. (1998) and prospect theory of Tversky & Kahneman (1992) in that due to limited processing capacity, consumers often do not have well-defined existing preferences, but construct them using a variety of strategies contingent on task demands. Thus, perceived risk is context-dependent and is constructed by consumers during their purchasing processes.

Furthermore, our study provides new insights on the understanding of perceived risk during information search when it comes to the current use of digital information. Specifically, we provide explanation on how the digitalization of the marketing environment affects the processes and interactions that build the model to describe perceived risk. In fact, we disclose new insights and differences from traditional theories that allow us to shed light on how perceived risk processing operates in digital environments and its implications on the whole purchase decision-making process.

This research' findings evidence that:

- 1) Trust;
- 2) The use of key reference points;
- 3) User generated content and;
- 4) How consumers perceive social risk in digital environments;

Explain the changes in perceived risk during information search as part of the digitalization of the marketing environment.

Moreover, emerging concepts, relationships and meanings also have a role in those changes. These are:

- 5) A potential association effect of perceived financial risk to perceived performance risk;
- 6) The discovery of mechanism of risk reduction and;
- 7) The emergence of new types of perceived risk are part of the digitalization of the marketing environment that causes the changes in the process of perceived risk during information search.

Ultimately, these findings allow us to suggest new relationships and meanings to the current model of perceived risk processing of Conchar et al. (2004) that contribute to the development of a new model of perceived risk processing that describes risk as an interactive process with dynamic interactions between perceived risk types and information search. A summary of the perceived risk variables of the digital era is shown in table 19.

Table 19. Summary of perceived risk variables of the digital era

Variable	Main findings
Trust	Determines whether information increases or reduces some types of perceived risk at some point in the process of perceived risk processing and information search

The use of Key Reference Points	Information used by consumers to reduce perception of some types of risk at different moments during the process of perceived risk processing and information search
User Generated Content	Available at digital information sources that helps consumers decrease perceived risk by searching for information at some moments during the process of perceived risk processing and information search
Social Risk	Changes consumers' search patterns as it has a more relevant role in digital environments at some points in the process of perceived risk processing information search and risk processing
New mechanisms of reduction of perceived risk	An outcome of information search that is able to reduce some types of perceived risk at some point in the process of perceived risk processing and information search
Emergence of new types of risk	An outcome of information search that is able to increase perceived risk at different moments during the process of perceived risk processing and information search

Moreover, figure 12 illustrates the findings on the interactions and processes that explain the process of perceived risk during information search in digital purchase contexts. Moreover, it contextualizes the changes in perceived risk due to the digitalization of the marketing environment in the whole process of information search. Thus, it considers the findings on the changes in the model of perceived risk in the digital era illustrated in figure 11, and integrates these findings in the whole process of information search.

Figure 12. Process Model of Perceived Risk during Information Search in Digital Purchase Contexts

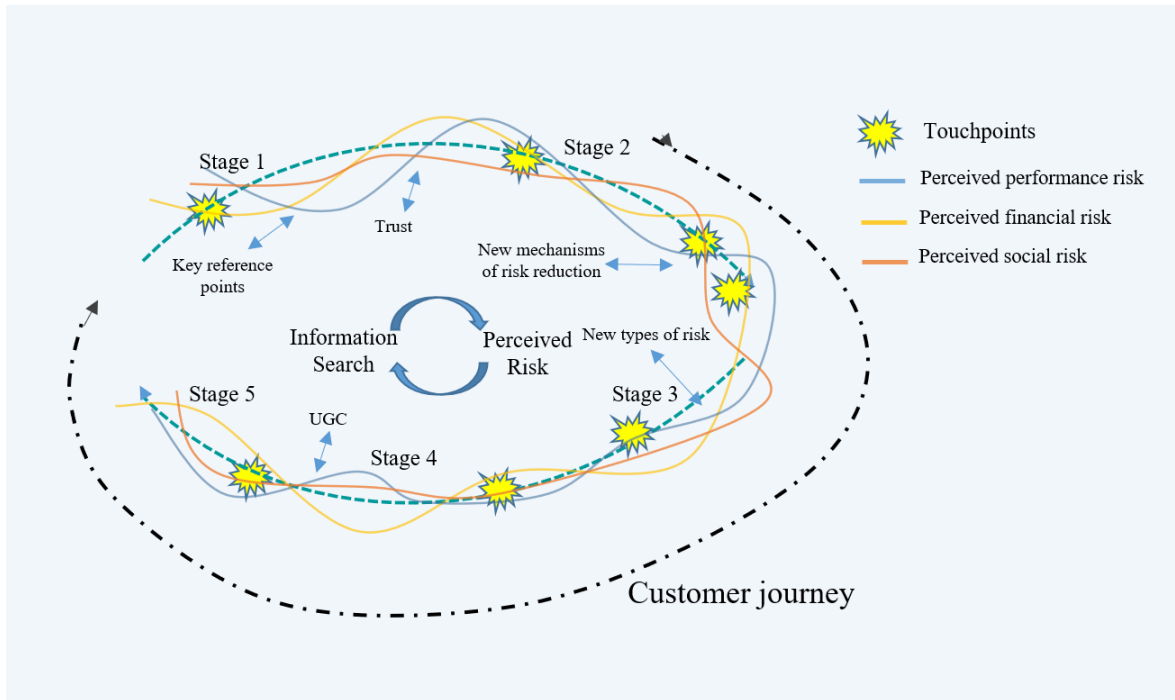


Figure 12 shows the cyclic and dynamic relationship between information search and perceived risk during the information search process. Moreover, it shows how the different types of perceived risks fluctuate upwards and downwards as consumers advance in their information search process. Finally, it illustrates how as consumers obtain information at touchpoints along the process, concepts, relationships and meanings (i.e. trust, new types of risk) affect risk perception.

All this allows us to provide with answers to our research questions.

Thereby, to recapitulate this dissertation, we refer to the focus of attention mentioned in the introduction of this work.

We started by identifying that a phenomenon originated by the digitalization of the marketing environment is occurring in the context of the purchase decision-making process. Moreover, we observed that perceived risk during information search in digital settings is a new and fast changing phenomenon. However, as far as the authors know, there is no theory that explains

how perceived risk unfolds during the process of information search in the digital context. Thus, our overarching research questions asks: How does the digitalization of the marketing environment affect consumers' perceived risks during the process of information search?

Going beyond in the literature review, we identified tensions between two branches of literature on perceived risk and information search stage of the purchase decision-making process. We saw that there were contradictory findings in research studies on the expected relationship between perceived risk and information search that looking at each study separately made sense but that together the results seemed paradoxical. This potential paradox found in the literature review leads us to seek for answers to the first specific research question of why are there contradictory findings in the literature on the expected relationship between perceived risk and information search in digital contexts?

This research finds that there are contradictory findings on the relationship between perceived risk and information search because studies in traditional literature on perceived risk tended to see perceived risk as a one-spot event. We find that perceived risk is a process and that it unfolds during information search in digital environments fluctuating upwards and downwards as a result of consumers' perception and responses to the information they collect during the process (proposition 1).

Moreover, from our findings it appears that the process of perceived risk and information search occurs in five stages during which consumers construct their search paths as strategies to reduce perceived risk according to the types of risk they perceive. Thus, the fact of only considering one specific moment of the process of perceived risk processing during information search, can explain the contradictory findings in the literature given that these studies could be focusing on different locations along the process while considering them as the same location in this trajectory.

Thus, this result leads us to answer the second specific research question on whether time has a role in the manner in which perceived risk unfolds during information search. This research answers this question by providing evidence of the process-driven nature of perceived risk in digital environments. Therefore, this study suggests that time has a role in the manner in which perceived risk unfolds as it allows the development of the cyclical process that occurs over time that is perceived risk. This allows the appreciation of how

perceived risk develops for a better theorizing as the ontological nature of perceived risk is better understood and the trajectory and interactions that occur over time and determine perceived risk can be contemplated.

The third specific research question that this study answers is: What is the interplay between perceived risk and information search in digital purchase context over time? This research finds the answer to this question in the manner in which perceived risk develops during information search. This research finds that perceived risk and information search have a dynamic relationship over time in digital environments. The dynamism of this relationship is explained by the manner in which perceived risk and information search activities unfold during the stage of information search of the purchase decision-making process. As we explain above, consumers advance in the process by dynamic loops in which they progress when they decrease some risk perception but regress when other types of risk perception increase or new types of perceived risk emerge. Therefore, this research finds that the relationship between perceived risk and information search is dynamic over time and importantly, this dynamism has a role on how the whole purchase decision-making process is dynamic in the digital age.

This research also finds answers on how the changes in the process of perceived risk processing and information search can be explained as part of the digitalization of the marketing environments. We find that when it comes to the process of perceived risk during information search in digital environments, concepts, relationships and meanings that determine perceived risk during information search are transformed as part of the digitalization of the marketing environment.

First, this research finds that trust has changed in the way it develops. In digital environments, trust determines when information, regardless whether it is traditional or digital information, is able to reduce perceived risk (proposition 2.1). Moreover, this research finds that trust is developed by consumers mainly at online communities where they share values and meanings. These communities act as a cushion that reduces perceived risk. Moreover, given the increasing availability of multiple ways of communication as part of the digitalization of the marketing environment, consumers identify the communities in which they trust more

often and easily. This supports Bernritter's et al. (2017) claim that consumers construct and express their identity in online and social media.

Second, the use of key reference points is part of the dynamism that characterizes the new relationship between perceived risk and information search in the digital era (proposition 2.2). This research finds that as consumers interact between the information they collect and their perception of risk, they use key reference points to check their risk reduction strategies. As part of the digitalization of the marketing environment the use of key reference points increases as they are more accessible and ubiquitous.

Third, in the digital environment user generated content has a role in the manner in which consumers perceive risk during information search. As part of the digitalization of the marketing environment there are shifts in the locus of value creation and power from firms to consumers as pointed out in the literature that explain how these changes affect consumers' perceived risk. This research points out that the changes in the loci of power and value creation allow consumers to use user generated content to reduce perceived risk. The increasing use of user generated content cause the democratization of knowledge that empower consumers in purchase situations and reduces risk (proposition 2.3).

Fourth, as part of the digitalization of the marketing environment social risk perception has changed the manner in which consumers behave during information search. This research asserts that in digital environments consumers are more concerned about what others think about them and their purchase decisions, that is that perceived social risk increases in digital environments. Thus, this research points out that social risk has a role on how consumers search for information as their risk reduction strategies are more directed towards decreasing social risk as the digitalization of the marketing environment widens the extent to which consumers' actions become more public (proposition 2.4).

Moreover, this research answers to the specific research questions of what are the emerging concepts, relationships and meanings that have a role on perceived risk during information search in digital contexts. First, this research suggests that as a result of the digitalization of the marketing environment there is a potential association relationship between perceived financial risk and perceived performance risk (proposition 3.1). Our results suggest that as

consumers are purchasing online and paying in digital channels, perceived financial risk has an effect on perceived risk as a poor product performance can carry financial losses.

Second, this research suggests that the manner in which consumers perceive risk during information search is influenced by new mechanisms of risk reduction that consumers discover and use in digital environments (proposition 3.2).

Finally, the emergence of new types of perceived risk that this research discovers particular to the new digital environment are; a) perceived risk of fraud, b) perceived risk of product loss or damage, c) perceived risk of not using the product and d) perceived risk of engaging in a return process (propositions 3.3)

Thus, this study provides with emerging knowledge and structures that contributes towards the development of theory.

In the following section we state the main conclusions of the study; it's contribution in the areas of theory, methodology and practice and the limitations and further research.

CHAPTER 7: CONCLUSIONS

7.1 Main conclusions

This work contributes to theory building of perceived risk during information search in digital environment as it provides answers to the relevant research questions that arises from the identified gap stated in chapter 3.

Returning to our overarching research question of: How does the digitalization of the marketing environment affect consumers perception of the multiple types of risk during information search? this research concludes that:

The digitalization of the marketing environment affects perceived risk by transforming the processes and interactions that determine perceived risk during information search. These processes and interactions that this research uncovers show that perceived risk is a process-driven construct comprising different types or dimensions of risk, some that are similar to those of traditional settings and others that are particular to the digital environment.

The digitalization of the marketing environment affects the different types of risk in the manner in which they are shaped by information at the different stages of the process. This means that consumers perceive the different types of risk at different moments of information search and as a result of the information they collect interactively from traditional and digital information sources.

Moreover, this research suggests that the digitalization of the marketing environment affects the manner in which perceived risks interact with information search. The effects of this digitalization are on the relationship between perceived risk and information search over time. This study proposes that consumers react to risk perception in different ways and that they construct strategies to reduce risk as they progress in the process of information search.

Basically, information search intervene in consumers' perceived risk and perceived risk also shapes how they search for information and deal with risk. Thus, this study suggests that

perceived risk and information search have a causal relationship that is mutual and dynamic in purchase situations and that they have a crucial role on how consumers take purchase decision in the current digital environment.

Moreover, this research suggests that; the manner in which trust is built at digital platforms; its effect on perceived risk; the changes in how key reference points are used in an interactive manner by consumers; the changes in the role of user generated content and social risk, explain the changes in perceived risk during information search as part of the digitalization of the marketing environment.

In addition, this study asserts that new strategies of risk reductions and new types of perceived risk particular to digital environments, are also part of the changes that transform the manner in which consumers perceive risk during information search and that are part of the digitalization of the marketing environment.

Finally, based on the findings that answer the specific research questions, this research proposes new relationships between information search and the types of risk perception in the current model of perceived risk processing. These propositions contextualize perceived risk during information search given the digitalization of the marketing environment.

7.2 Contribution

This research provides in depth insights on how the digitalization of the marketing environment affects perceived risk during information search. Justification for undertaking this research comes from limitations in current theories in explaining the manner in which perceived risk behaves in digital marketing environments during the process of consumers' information search.

The understanding of perceived risk is important as it is agreed in the literature that it shapes consumers' behavior and ultimately drives consumers to take purchase decisions. Moreover, a clear understanding of the relationship between perceived risk and information search in digital environments is lacking in academic research.

This research provides theoretical, methodological and practical contributions in the fields of perceived risk and information search in the context of the purchase decision-making process. The following discussion highlights the main contributions of the study.

1) Contribution to theory

First, this research provides to the risk literature a finer-grained approach of the understanding of consumers' risk perception from its diverse dimensions in digital environments. Moreover, this research identifies different stages in the process of information search and perceived risk processing in digital environments that clarifies how the relationship between the multiple types of risk and information search is at each stage of this process. Importantly, this provides in depth insights to explain the contradictory findings on the expected relationship between perceived risk and information search found on prior literature. This research contribution arises from examining the relationships between risk perception and information search from a time-driven perspective uncovering the dynamics of these two constructs in digital environments that are necessary for the theorizing process of perceived risk during information search in digital environment.

Second, by contextualizing perceived risk in the current digital marketing environment through an empirical study based on real-life data, this research study advances in formulating a new model to explain consumers' perceived risk during the information search stage of the purchase decision-making process. This study builds on literature in relation to the model of perceived risk processing of Conchar et al. (2004) and the findings on the processes and interactions that emerge in digital environments contribute to extend this model and integrate the changes in paradigm on the relationships between consumers and firms due to the digitalization of the marketing environment. Thus, the study findings contribute to the risk literature by providing empirical evidence on consumers risk perception during the specific context of purchase when consumers use digital and traditional information sources.

Third, this research is in line with emerging customer journey literature that goes beyond the linear and sequential approach on the consumers' purchasing process (i.e. Edelman, 2010; Grant et al., 2007; Lemon & Verhoef, 2016). In this sense, this research contributes to have a clearer understanding on how and why the purchase decision-making process becomes dynamic and cyclic with the digitalization of the marketing environment. Moreover, this study justifies the role of perceived risk in information search behavior and thus, in the purchase decision-making process in the current digital environment. Ultimately, this research provides with empirical evidence on the manner in which perceived risk affects consumers' behavior during the information search stage of the purchase decision-making process. Thus, this research responds to the need of research in the customer journey itself, the relationship among touchpoints and how these experiences at touchpoints influence their purchase decision-making pointed out by Lemon & Verhoef, 2016. Moreover, we provide an in-depth analysis from a customer perspective and importantly, we contribute to have an appreciation of the specific segment of digital natives as Lemon & Verhoef 2016 point out as a relevant contribution in the customer journey literature.

Fourth, in terms of methodology the interpretive approach and qualitative methodology adopted for this research sees consumers and their behavior as socially, culturally and context dependent. By studying the phenomenon from this methodological approach, this study contributes to gain new and meaningful insights on how the digitalization of the marketing environment changes consumers' perceived risk during information search. This perspective is beneficial in order to deeply understand how and why consumers perceive risk during information search and ultimately how risk perception shapes their purchase decisions.

Moreover, the longitudinal and process-driven nature of this research contributes to have an appreciation for the changes that occur in consumers' perception across time, considering that time can be experienced differently (i.e. subjective time) as Shepherd (2017) points out. In fact, by incorporating the understanding of how perceived risk is actually experienced by consumers in a subjective sense through time, we offer an understanding of the essence of perceived risk during information search. This allow us to provide a more realistic explanation of behavior as we consider the temporality of perceived risk that is found to be experienced by consumers in the present but rooted both in the past (i.e. consumers' previous

experience or knowledge) and in the future (i.e. expectations of performance). As George & Jones (2000) citing Bandura (1982) point out , what a person perceives he or she will be able to accomplish is based on past achievements as well as the anticipation of what will be expected in the future.

With a longitudinal approach this research also offers a clearer “big picture” of the entire process of information search. Thus, we contribute to understand how risk develops during the process of information search, something that is missing in dominant quantitative research. In fact, our methodological approach contributes to knowledge as it proves that the phenomenon we explain occurs in a cyclical fashion over time and thus, this research provides the understanding as to why there are ambiguities and debates in the research literatures on the expected relationship between perceived risk and information search. As George & Jones (2000) assert, by not adequately incorporating the element of time into theory building the explanation of the phenomenon is distorted as it is viewed only at a specific snapshot of some location along the trajectory of the phenomenon itself.

Thus, the interpretive and longitudinal approach of this study contributes with new knowledge to the theorizing process of perceived risk in digital purchase settings, a much more needed theoretical perspective beyond dominant quantitative approach that sees consumers as isolated individuals and their behavior during information search, as a one spot event.

2) Contribution to Marketing Practice

This research has also important contributions and implications for marketing practitioners. We contribute with new knowledge that is relevant for marketers as it can help them implement more accurate strategies. Moreover, based on the study findings and this new knowledge we propose recommendations with the aim to improve marketers’ current strategies and tactics.

The contribution of this research to practitioners is that it sheds light on where to act and how to mitigate the different risk types at the different touchpoints of the customer journey. As

this research identifies the types of risk, the moments where they occur and why it happens, marketers can offer more accurate risk reduction strategies to consumers. Moreover, this research facilitates marketers to better understand how to decrease risk and improve customers' satisfaction and engagement during information search. Therefore, this study clarifies where to allocate resources to add value to consumers in their purchasing processes so, they keep the brand in their consideration set until purchase.

The implications and recommendations for marketers are focused towards improving consumers' satisfaction and well-being during the purchase decision-making process and towards gaining efficiency in firms' marketing and communication strategies.

Based on the results of this research, firms can benefit from facilitating spaces to consumers where they can interact and build communities. Given our findings on how consumers decrease risk by interacting with other consumers that they trust, marketers should promote strategies based on customer to customer interaction. For instance, offering consumers spaces where they can share pictures or information; and finding ways to maximize the communication of people in social media about the product and brand.

Moreover, given our findings on consumers' preferences of information coming from other consumers over information coming from firms, marketers can take advantage of customer to customer trust and how they build communities to explore mechanisms that allow consumers' conversations. Thus, offering customers spaces where they can share their preferences and values can encourage the establishment of communications around the brand increasing in this way good attitudes toward the brand.

Furthermore, firms should also convey messages of transparency in the information they provide to consumers as perception of realistic pictures or product description was found to encourage consumers trust and thus, risk reduction.

Finally, given the potential association between perceived financial risk and perceived performance risk, firms should consider decreasing financial risk perception by offering warranties and flexible payment possibilities to consumers in order to decrease their concerns about financial losses. But more importantly, getting the consumer to evaluate the product

from the perspective of its performance without the effect of his or her financial concerns attached to the purchase.

7.3 Limitations and directions for future research

This research study has limitations that provides opportunities for further research.

First, this research seeks for in depth understanding of consumers' behavior during the information search stage of the purchase decision-making process regarding risk perception. Thus, rather than generalization this study is focused on deeply understanding the phenomenon through extensive and prolonged engagement with consumers. Consequently, the sample size is not large enough for generalization. Moreover, although the diversity in the country of origin of interviewees the research's data was collected in Barcelona, Spain. Thus, the results are not generalizable on a global scale.

Second, as it is asserted in current literature (Moorthy et al., 1997; Schmidt & Spreng, 1996) information search patterns are determined by many factors including perceived risk. This research provides in-depth understanding on perceived risk in digital environments. However, the scope of this research doesn't reach a full explanation of how the other factors influence the manner in which consumers search for information given the digitalization of the marketing environment. Thus, the results of the effects of perceived risk in information search in digital environments should be taken into account considering that there may be effects of other variables on information search behavior that are not taken into account in this study. Therefore, new avenues of inquiry could be directed towards understanding how the other elements involved in information search behavior are transformed by the digitalization of the marketing environment and how they relate to each other. For instance, perceived knowledge or consumers' experience with the brand and their relationship.

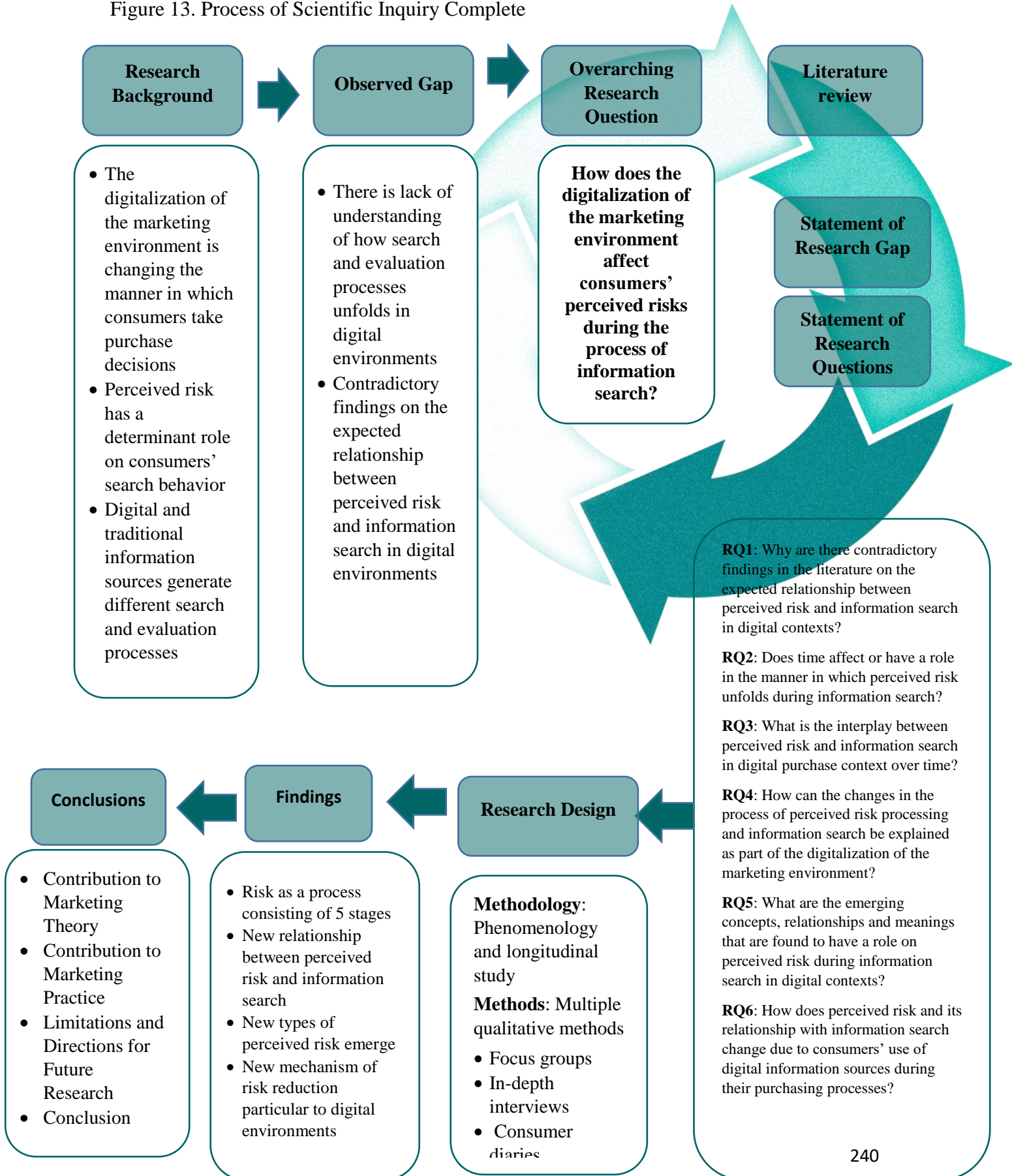
Third, this research focuses on examining the whole purchase process of experience-type products that are exclusively tangible. As an avenue for further research and in order to enrich the understanding of perceived risk, we encourage studies that examine the customer journey

and how risk behaves in purchasing processes of experience-type services that are intangible. For instance, restaurant and travel experiences.

Fourth, the present study identifies a potential association relationship between perceived financial risk and perceived performance risk. A test of this suggested effect is necessary in order to prove this effect in purchase situations. Finally, as this study make propositions to the current model of perceived risk processing and contributes to the theorizing process of perceived risk in digital purchase environments, we encourage research that develops, test and refines the new model that emerges in this research work.

Figure 13 shows the complete process of scientific inquiry that shows that the process is conducted in an interactive manner.

Figure 13. Process of Scientific Inquiry Complete



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Appendix 1: Coding tree of initial stages of information search

Name	Description	Files	References
Advanced information search	Stage 3 identified	-	-
Cognitive effort perception higher in digital contexts		5	9
Convenience and time risk of returns		3	4
Digital information sources better at giving technical or expert information		5	10
Digital information sources have more options to choose from		1	1
Information overload and selection capacity		1	1
Initial Information Search	Stage 2 identified	-	-
Possibility to sell the product reduces risk		3	6
Trust in close friends		9	15
Trust in online reviews (2)		10	42
Distrust of Online Reviews	They perceive the review is biased or fake	1	1
Long Term Perspective of Risk	What will happen long after purchase	7	17
General long risk perception		2	4

Name	Description	Files	References
Having a physical store where to go and solve problems in the future		4	4
Risk of being stolen or damaged		4	9
Perceived Knowledge		3	3
Preparing for information search	This is the first stage identified	-	-
General initial search (i.e. google search)		4	5
Must have attributes		0	0
Signs of perceived financial risk		4	9
Stablished set of attributes		2	5
Use of references (friends, brands, ongoing search)		4	12
Previous experience and performance risk		3	4
Spending more now to save money in the future		3	3
Trust		13	67
More trust on salespeople and physical store		4	7
Sense of belonging		1	1
Trust in brand reputation		3	4
Trust in close friends		6	11
Trust in official website		3	3
Distrust of official website		1	5
Trust in online reviews		10	42

Name	Description	Files	References
Distrust of Online Reviews	They perceive the review is biased or fake	1	1
Types of risk		16	62
Evidences of mediation of financial risk to performance risk		6	11
Financial risk		4	7
Performance risk in digital context		6	9
Maximizing the accuracy of decision		1	1
Performance risk increases information search		4	6
Physical risk		2	11
Risk of being cheated or scammed		3	3
Risk of losing the opportunity or Immediate possession		1	1
Risk of not using the product in the end	The feeling that they are purchasing a product that in the end they will not use. Thus, it won't be worthy	5	6
Social Risk		6	14
Using online channel to prepare for the visit at the store		4	8

Name	Description	Files	References
What makes engage in additional information search		3	5
Filter out real reviews from fake reviews		3	5

Appendix 2: Coding tree of advanced stages of information search

Code Name	Description	Files	References
Financial risk		1	1
Longitudinal coding	The 7 descriptive categories. By Johny Saldaña (2013)	2	4
Constant and Consistent	What remains constant or consistent through time?	1	1
Filter out real reviews from fake reviews		1	2
Financial risk		1	1
Long Term Perspective of Risk		3	4
Having a physical store where to go and solve problems in the future		1	1
Longitudinal coding	The 7 descriptive categories. By Johny Saldaña (2013)	2	4
Constant and Consistent	What remains constant or consistent through time?	-	-
Filter out real reviews from fake reviews		1	2
Financial risk		1	1

Code Name	Description	Files	References
Long Term Perspective of Risk		3	4
Having a physical store where to go and solve problems in the future		1	1
Risk of being stolen or damaged		1	2
Social Risk		1	2
Trust in close friends		2	3
Trust in online reviews		2	5
Cumulates	When it is incremental (i.e. ability to play piano)	-	-
Losing his opportunity		1	3
Decreases and ceases		-	-
Distrust of official website		1	1
Financial risk		2	6
Idiosyncratic	What is idiosyncratic through time? inconsisten, peculiar or unpredictable	-	-
Increase and Emerge	What elements of risk and decision-making	-	-

Code Name	Description	Files	References
	increase or emerge as consumers advance in information search?		
Cognitive effort perception higher in digital contexts	It increases and cumulates as consumers advance in the process of information search	2	5
Trust in close friends		3	12
Trust in official website		1	2
Trust in online reviews		1	4
Missing	What is missing? Something that we havent contemplate	1	2
Surges, ephiphanies and turning points	What kind of surges, ephiphanies or turning points occur through time?	-	-
Ability to compare among one brand options is easier. Filtering is good		1	2
Hedonic value of products		3	6
Long Term Perspective of Risk		2	4
Need to justify or take a decision		1	3

Code Name	Description	Files	References
Risk of being stolen or damaged		1	2
Social Risk		1	2
Trust in close friends		3	6
Trust in online reviews		2	5
Cumulates	When it is incremental (i.e. ability to play piano)	-	-
Loosing his opportunity		1	3
Decreases and ceases		-	-
Distrust of official website		1	1
Financial risk		2	6
Performance risk		1	3
Idiosyncratic	What is idiosyncratic through time? inconsisten, peculiar or unpredictable	-	-
Increase and Emerge	What elements of risk and decision-making increase or emerge as consumers advance in information search?	-	-
Cognitive effort perception higher in digital contexts	It increases and cumulates as consumers advance in the process of information search	3	8
Trust in close friends		3	12
Trust in official website		1	2

Code Name	Description	Files	References
Trust in online reviews		1	4
Missing	What is missing? Something that we havent contemplate	1	2
Surges, ephiphanies and turning points	What kind of surges, ephiphanies or turning points occur through time?	-	-
Ability to compare among one brand options is easier. Filtering is good		1	2
Hedonic value of products		3	6
Long Term Perspective of Risk		2	4
Need to justify or take a decision		1	3
Reinforcement of decisions		1	1

Appendix 3.1: Participant information and consent form (page 1)

La Salle – Universitat Ramon Llull

Intervies/ Entrevistas – Consumer Behaviour/ Comportamiento del consumidor

Entrevistador:

Gabriela Balladares

PhD candidate La Salle - URL

Vida laboral

Personal Information/ Información personal

Name of Participant: _____

Gender: Female Male

Phone number: _____

Email: _____

Purpose of Study/ Propósito del estudio

The purpose of the interview is to know and understand the process individuals undertake to take purchase decisions.

El propósito de la entrevista es conocer y entender el proceso que las personas llevan a cabo para tomar decisiones de compra.

Confidentiality/ Confidencialidad

We plan to publish the results of this study. We will not include any information that would identify you. Your privacy will be protected and your research records will be confidential.

Tenemos la intención de publicar los resultados de este estudio. No vamos a incluir ninguna información que pueda identificarlo. Su privacidad será protegida y sus registros de investigación serán confidenciales.

Place and date/Lugar y fecha: Barcelona 26/10/2016

Signature/Firma: _____

Appendix 3.2: Participant information and consent form (page 2)

Demográficas

Fecha de nacimiento: Rome, Italy 1998

Género: Femenino Masculino

Vida laboral

Cuál de las siguientes respuestas describe mejor lo que haces actualmente? Puedes escoger más de una opción.

- Trabajo a jornada completa
- Trabajo a media jornada
- Trabajo de manera casual
- Desempleado (a) y buscando trabajo
- Estudiante a media jornada
- Estudiante a jornada completa
- Ama de casa jornada completa
- Desempleado (a) y no buscando trabajo
- Otro (Por favor especificar)
- No se/ no puedo decir

Presupuesto:

Cuál es tu presupuesto mensual?

- < €50 al mes
- €50 - €100 al mes
- €100 - €250 al mes
- €250 - €500 al mes
- €500 - €1000 al mes
- >€1000 al mes
- No se/ prefiero no decir

Cuál es tu presupuesto para esta compra?

Entre € 30 y € 50.

Usaras tu dinero o el dinero de tus padres o tutores?

my money