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# Convenience Over Functionality: The Impact of Anxiety on Consumer Financial Decision-Making Behaviors in University Students

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Dissertation written under the supervision of Professor Cristina  
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## **Abstract**

In recent decades, growing attention has been paid to the role of emotions in financial decision-making. Anxiety, in particular, has emerged as a significant factor influencing consumer spending behaviors. Using a survey-based methodology, in this thesis I examine the impact of state anxiety and financial anxiety on convenience-seeking spending among university students and explore how financial anxiety influences the relationship between state anxiety and spending behaviors.

The findings of this dissertation demonstrate that state anxiety increases convenience-seeking spending while reducing functional spending, with financial anxiety showing an even stronger influence. An exploratory mediation analysis further reveals that financial anxiety mediates the relationship between state anxiety and convenience-seeking spending, highlighting its role as a key mechanism linking broader emotional states to financial behaviors.

Consequently, this thesis contributes to a better understanding of the relationship between anxiety and consumer financial decision-making, distinguishing the effects of state and financial anxiety on specific spending patterns. By addressing these dynamics, this research provides a foundation for future studies and interventions to mitigate anxiety-driven financial behaviors and support more informed decision-making.

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**Keywords:** anxiety, financial decision-making, consumer behavior, convenience-seeking spending, state anxiety, financial anxiety, university students

## **Resumo**

Nas últimas décadas, tem-se dado crescente atenção ao papel das emoções na decisão financeira. A ansiedade, em particular, emergiu como um fator significativo nos comportamentos de consumo. Utilizando uma metodologia de inquéritos, esta dissertação examina o impacto da ansiedade situacional e financeira nos gastos orientados para conveniência entre estudantes universitários e explora como a ansiedade financeira influencia a relação entre a ansiedade e os comportamentos de consumo.

Os resultados demonstram que a ansiedade situacional aumenta os gastos orientados para conveniência, enquanto reduz os gastos funcionais, sendo que a ansiedade financeira exerce uma influência ainda mais forte. Uma análise exploratória de mediação revela que a ansiedade financeira medeia a relação entre a ansiedade situacional e o consumo orientado para conveniência, destacando o seu papel como mecanismo-chave que liga estados emocionais mais amplos aos comportamentos financeiros.

Esta dissertação contribui para compreender melhor a relação entre ansiedade e decisão financeira do consumidor, distinguindo os efeitos da ansiedade situacional e financeira em padrões específicos de consumo. Ao abordar estas dinâmicas, fornece uma base para futuros estudos e intervenções que visem mitigar comportamentos financeiros influenciados pela ansiedade e apoiar decisões mais informadas.

**Título:** Conveniência mais do que Funcionalidade: O Impacto da Ansiedade nos Comportamentos de Tomada de Decisão Financeira de Consumo em Estudantes Universitários

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**Palavras-chave:** ansiedade, tomada de decisão financeira, comportamento do consumidor, gastos orientados para a conveniência, ansiedade situacional, ansiedade financeira, estudantes universitários

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## List of Abbreviations

$\alpha$	Alpha
$\beta$	Beta
b	Regression coefficient
CI	Confidence interval
CS	Convenience-seeking spending
Enrollment	Enrollment status
$F(v_1, v_2)$	F with $v_1$ and $v_2$ degrees of freedom
FAS	Financial anxiety
FDM	Financial decision-making
FS	Functional spending
H1	Hypothesis 1 (2 respectively)
M	Mediator
N	Total number of cases
p	p-value
r	Correlation coefficient
$R^2$	Multiple correlation squared
SD	Standard deviation
SE	Standard error
SPSS	Statistical Package for the Social Sciences Statistics
State	State anxiety
Trait	Trait anxiety
X	Independent variable
Y	Dependent variable

## **1. Introduction**

Almost every university student has been confronted with the decision whether to order takeout for convenience purposes or to prepare a cheaper, often healthier, meal at home. This trade-off in everyday life shows how decisions in a financial context are central to consumption (Sussman et al., 2023).

Financial decisions are one of the most important life-shaping decisions that individuals make (Frydman & Camerer, 2016), and their complexity has rapidly grown over the past decades (Zopounidis & Doumpos, 2002). However, when people are making comprehensive financial decisions, they are not only guided by rational calculations (Kahneman & Tversky, 1979; Simon, 1955; Tversky & Kahneman, 1992), but are also strongly affected by psychological factors such as emotions that can influence and modify financial decisions in various ways (Zaleskiewicz & Traczyk, 2020).

Previous studies have proven that emotions impact decision-making (Lerner et al., 2015), and have proposed that anxiety, as an emotion, is an important factor affecting decisions (Miu et al., 2008), with high levels of continuous anxiety shown to have a negative impact on the process (Polat et al., 2019). Since anxiety levels have significantly increased over the past few decades, with rates among individuals aged 16 to 24 in the UK more than doubling in the last 20 years (Dykhhoorn et al., 2024), and previous research showing that anxiety is particularly relevant in the context of financial decision-making (Lerner & Keltner, 2000; Loewenstein et al., 2001; Maner et al., 2007), this study focuses on anxiety as a key emotion shaping financial behaviors.

In the context of consumer research, anxiety has been viewed as shaping how individuals make every day financial decisions, often prioritizing emotional relief over rational outcomes (Malkoc & Zauberan, 2019; Sussman et al., 2023). However, with the growing complexity of consumer financial behavior (Malkoc & Zauberan, 2019), understanding how anxiety shapes consumer financial decision-making has become more and more important.

### **1.1 Problem statement and research objective**

While existing research has extensively explored the role of emotions in financial decision-making, most studies focus on anxiety's effects in traditional financial contexts, such as investment behaviors (Gambetti et al., 2022; Gambetti & Giusberti, 2012), rather than consumer financial decision-making, where everyday spending, convenience-seeking, and impulsive behaviors are more relevant. This gap highlights the need to understand how anxiety

specifically influences consumer-oriented financial decisions in real-world scenarios, whereby this study will offer a novel contribution to.

Additionally, as university students typically live in a period of young adulthood, which is commonly associated with a significant life transition marked by increased financial responsibility and stress, they build a particularly relevant demographic for this research (Archuleta et al., 2013). Scholars highlight a link between adverse financial situations and the negative impact on both mental and physical health of college students (Roberts et al., 2000), while others have found that financial stressors are positively associated with higher levels of anxiety among students (Andrews & Wilding, 2004). These findings underscore the importance of focusing on university students in this study, as they represent a population particularly vulnerable to anxiety-driven consumer financial decision-making.

Therefore, the main objective of this study is to investigate how different types of anxiety influence consumer financial decision-making among university students. By addressing these research gaps, this study aims to provide a better understanding of the psychological factors that drive consumer financial behaviors and offer insights that could inform financial education and policy-making.

To address these research gaps, this dissertation will conduct a survey-based correlational study that will measure participants' anxiety levels and their responses to hypothetical financial decision-making scenarios to assess their convenience-seeking and impulsive spending behaviors. The main research question of the current thesis is, thus:

RQ: How does anxiety influence consumer financial decision-making behavior, particularly in the contexts of convenience-seeking, among university students?

## **1.2 Significance and relevance of the study**

This study contributes to the growing body of academic research on financial decision-making by exploring the relation between anxiety and consumer financial behavior, particularly in the contexts of convenience-seeking and impulsive spending. While previous research has extensively examined the influence of emotions on decision-making (Lerner et al., 2015; Zeelenberg et al., 2008), there is limited focus on state anxiety's specific role in shaping consumer financial choices. By integrating theories of decision-making, emotion, and coping, the current research addresses critical gaps in the literature, offering an understanding of how state anxiety influences university students in everyday financial decisions.

Additionally, the findings of this study have significant implications for decision-makers and organizations working with university students in areas such as consumer finance, marketing, and financial counseling. By highlighting how anxiety drives convenience-seeking and impulsive spending within university students, businesses and campus organizations can better address the financial needs and challenges of anxious students. Financial counselors, can also use these insights to help students overcome emotional barriers to sound financial decision-making, fostering improved financial well-being and resilience.

### **1.3 Structure of the dissertation**

This dissertation is organized into six main chapters. The introduction outlines the problem statement, research objectives, and the significance of the research. Chapter 2 provides a detailed literature review, that covers key theoretical foundations, including definitions of financial decision-making, emotions, and anxiety, and examining their relation in the context of consumer financial decision-making and convenience-oriented spending. Chapter 3 details the research methodology, including the study design, participant recruitment, materials used, variable descriptions, and procedural steps. Chapter 4 presents the results of the study, offering a detailed analysis of the data collected. Chapter 5 discusses the findings, draws conclusions, provides practical applications and identifies limitations and areas for future research. Finally, the conclusion summarizes the findings of this dissertation to ensure future actionable use for decision-makers.

## **2. Literature Review**

### **2.1 Financial decision-making**

Within the broader field of decision-making, financial decisions emerge as a critical area of study, as they are one of the most important life-shaping decisions that individuals make (Frydman & Camerer, 2016). The complexity of financial decisions has rapidly grown over the past decades, highlighting the importance of understanding their complex nature (Zopounidis & Doumpos, 2002). According to Guo et al. (2022), financial decision-making is the process of selecting an alternative from among a choice set in the context of financial decisions, which are determined at different levels in various economic activities. They involve multiple facets and complexities, influenced by various factors such as individual differences, uncertainty about future income, social norms, and the diversity of financial instruments (Guo et al., 2022). These authors further explain that financial decisions often involve balancing short-term and long-

term returns or evaluating risks under uncertainty, making them a critical focus for research in decision-making processes.

Guo et al. (2022) divide financial decisions into two categories: risk decisions and intertemporal decisions. They state that risk decisions involve making choices in environments filled with uncertainty, where decision-makers assess costs and returns based on informed judgments about expected outcomes and subjective probabilities. On the other hand, intertemporal decisions are choices of financial resources made by people over time, balancing short-term and long-term returns (Guo et al., 2022). Intertemporal decisions involve trade-offs of benefits and costs over time and are very dominant across many consumer decisions (Malkoc & Zauberan, 2019).

### **2.1.1 Consumer financial decision-making**

Financial decisions are central to consumption (Sussman et al., 2023), because consumers make intertemporal trade-offs in everyday life decisions, for instance when deciding whether to eat an unhealthy dessert that is harmful for long-term health or a healthy dessert that is less enjoyable in the present or whether to spend another hour studying versus going out for a coffee with friends (Malkoc & Zauberan, 2019).

Lynch (2011) discusses how the field of consumer financial decision-making is still emerging and is characterized by unclear boundaries. Even though it could be argued that any purchase qualifies as a financial decision, Lynch (2011) does not adopt this perspective. He rather proposes that financial decisions are defined as those that significantly impact a consumer's overall financial situation, either due to the magnitude of a single or the cumulative effects of recurring patterns influenced by personal traits, abilities, and habits (Lynch, 2011). Likewise, Vitt (2004) states that consumer financial decisions involve psychological, physical, and social values, whereby many values override those that caution financial constraint (Vitt, 2004). Lastly, Greenberg and Hershfield (2019) believe that financial decisions are unique due to their lasting consequence for all areas of consumer decision-making and consumer welfare (Greenberg & Hershfield, 2019).

While consumer financial decision-making provides a foundational understanding of how individuals make financial choices, specific behaviors such as convenience-oriented shopping illustrate how situational and practical considerations shape these decisions and will be explored further in the following section.

### **2.1.2 Convenience-oriented spending**

A key subset of consumer financial decision-making involves behaviors aimed at minimizing effort or saving time, commonly referred to as convenience-oriented shopping. According to Swoboda and Morschett (2001), convenience can be understood as the comfort experienced by consumers and refers to more than just the ease of a purchase. Even though convenience has held great significance in the USA since the 1970s, it can be considered as a relatively new consumer trend in Europe (Swoboda & Morschett, 2001). They further point out that convenience shopping is an expression of social and cultural development, meaning that it reflects broader changes in society such as an increased emphasis on time efficiency. The authors also highlight actual purchasing behavior of consumers with regard to convenience-oriented shopping as another aspect of the term. This focus emphasizes how these social and cultural developments can influence the actual practical consumption, such as buying pre-prepared meals instead of cooking.

While convenience-oriented shopping highlights the practical trade-offs consumers make, spending behaviors are also influenced by psychological factors, as seen in compensatory consumption. Zheng and Peng (2014) define compensatory consumption as a consumption behavior aimed at coping with psychological deficits or threats. They note that a central focus of consumer behavior research is the understanding that individuals consume products or services not solely for their functionality and practical utility but also for their signaling value. Additionally, consumption serves as an important self-concept management strategy, often being used symbolically to address self-threats, which makes the compensatory mechanism pivotal in understanding various irrational consumer behaviors (Zheng & Peng, 2014).

This connection between spending and psychological relief leads to a broader understanding of consumer comfort, which reflects the behavioral aspects of consumer financial decision-making. According to the literature, comfort seeking is a basic human behavior and people generally make decisions to increase feelings of comfort (Spake et al., 2003). The review of Spake et al. (2003) reveals that comfort is a positive emotion and can be defined as feeling at ease or reduced anxiety. Daniels (2000) even proposes that comfort is the opposite of anxiety and can be the relief of mental discomfort caused by negative emotions such as anxiety (Daniels, 2000; Simmons, 2001). In regard to consumer financial decision-making, consumer comfort is defined by Spake et al. (2003) as a psychological state wherein a customer's anxiety concerning a service has been eased, and they enjoy peace of mind, are calm and worry-free (Spake et al., 2003, 2011).

To better understand the drivers of consumer financial decision-making that influence individuals during this process, it is important to explore key theoretical frameworks that strongly influence existing research in decision-making (Bless et al., 1998) and have been used to explain consumer financial decision-making and clarify how individuals evaluate options and make decisions.

### **2.1.3 Classical theories of decision-making**

According to Slovic (1995), decision-making can be generally distinguished in two different types of theories: the theory of riskless choice and the theory of risky choice. He states that the first theory has its origins in the notion of utility maximation proposed by Jeremy Bentham and James Mill, which was further expanded by Edwards (1954) in the context of decision-making. This theory of Edwards (1954) on the economic man assumes that any individual making decisions has three properties: a) he is completely informed about the possible courses of action and their consequences, b) he is infinitely sensitive to differences in alternatives, and c) he is rational in the sense that he ranks choices to maximize subjective value or utility (Edwards, 1954; Slovic, 1995). The second theory proposed by Slovic (1995), the theory of risky choice, focuses on decisions made under uncertainty about events that impact the outcomes of one's actions. To capture the dual nature of financial decision-making, this current thesis examines both theories of riskless and risky choice by providing three examples of classical theories that challenge the view of the economic man: prospect theory, bounded rationality, and affect heuristic.

First, even though it has been significantly questioned in recent years, the expected utility theory by Von Neumann and Morgenstern (1944) has dominated as one of the most known models of decision-making under uncertainty for several decades (Kahneman & Tversky, 1979; Tversky & Kahneman, 1992). However, since then, a substantial amount of research has found evidence stating that the theory does not provide an adequate explanation of individual choice, as for instance the research of Kahneman and Tversky (1979) present in their prospect theory. This theory is a model of choice suggesting a value function that is concave for gains, convex for losses, and steeper for losses than for gains which can be understood as the fact that individuals are generally loss averse and hate losses more than they value gains (Tversky & Kahneman, 1992). It is important to mention that the application of decision-making theories to financial decision-making is well-established, whereas Kahneman and Tversky's (1979) prospect theory has become a foundation of behavioral finance, demonstrating empirically how people are frequently not capable of acting rationally in the financial context (Gärling et al., 2009).

Another research development that took place and had significant influence in the decision-making context was the work of Simon (1955), who argued that actual decision-making behavior is better described in terms of bounded rationality. In his research, Simon (1955) fundamentally challenges the classical economic assumption of full rationality in decision-making. He argues that decision-makers undergo cognitive constraints that limit their capacity to make fully optimal decisions. Individuals often choose an option that meets a minimum level of acceptability instead of maximizing utility and evaluating all relevant alternatives. The impact of constraints such as incomplete information, time, and limited cognitive capacities contrasts strongly with the classical economic man (Simon, 1955). Similarly to the prospect theory, the concept of bounded rationality has also been applied in behavioral finance, such as explaining why people fail to act rationally in financial markets (Gärling et al., 2009).

Lastly, the affect heuristic (Slovic et al., 2007) explains the importance of affect in decision-making, which relies strongly on Zajonc's (1980) early research suggesting that affective reactions are often the first responses to a stimulus, occurring immediately and guiding subsequent information processing (Slovic et al., 2007; Zajonc, 1980). The affect heuristic, as defined by Slovic et al. (2007), describes the importance of affect in guiding decisions, whereas affect, in this sense, is linked to the specific quality of goodness or badness experienced as an automatic response. According to Slovic et al. (2007), individuals often rely on an internal affect pool that contains positive and negative tags linked to different representations in memory. As a result, people simplify complex decision-making scenarios, using immediate affective reactions rather than engaging in effortful processing of all relevant factors, particularly in high-stakes situations (Slovic et al., 2007). As the affect heuristic provides a framework for understanding how people simplify complex decisions in everyday contexts (Slovic et al., 2007), such as financial behaviors involving convenience, it aligns with this research's emphasis on understanding consumer's financial decision-making processes and has been significant in research regarding the impact of positive and negative affective cues on financial decision-making, especially in investment decisions (Hung-Jen et al., 2010).

Even though some traditional theories have been related to financial decision-making, it can be noted that they lack explanations of decision-making processes under various emotional states, leaving a gap in understanding how emotions influence choices. However, recent research identifies factors such as emotion as a critical influence on decision-making, including within the financial context, leading to varying risk behaviors and financial outcomes (Guo et al.,

2022). Accordingly, this study focuses specifically on the role of emotion in relation to financial decision-making.

## **2.2 Emotions**

Thoits (1989) states, in his research, that although definitions of emotion vary widely among scholars, emotions typically consist of: a) an evaluation of a given situation, b) physiological changes, c) the expression or suppression of gestures, and d) a cultural label that identifies and categorizes specific constellations of the first three components. However, not all four components are required to occur simultaneously for an emotion to be experienced or recognized by others (Thoits, 1989). To give an example, he describes that a person might feel fear without knowing its cause. He explains further that the multifaceted nature of emotions and their interplay with both individual experiences and social contexts is highlighted by the distinction of emotions from affects, moods, and feelings. Feelings are defined as mental representations of the physiologic changes that occur during an emotion (Damasio, 2004). Moods can be explained as feelings that tend to be less intense than emotions and that can lack a contextual stimulus (Weiss & Cropanzano, 1996). Affect, as already defined in the previous chapter, can be used as a generic term that covers a broad range of feelings and moods and thus forms an umbrella concept for both (George, 1991).

There are many criteria that can be used to categorize emotions into different groups. Based on Weiss and Cropanzano (1996), for example, emotions can be distinguished in primary and secondary emotions. They further explain that primary emotions refer to fundamental emotions and secondary emotions are emotional states that are derived from a combination of the primary emotions. They also found that various researchers have created lists of primary emotions, as for example, Izard (1977), Shaver et al. (1987), Ekman (1992), and Plutchik (1994). One of the most common lists of basic emotions is the semantic classification by Shaver et al. (1987) who clustered emotions into six categories: love, joy, surprise, anger, sadness, and fear (Weiss & Cropanzano, 1996). These primary emotions were then subdivided into 24 subcategories, as for instance the emotion love was divided into affection, longing, and lust, whereas the emotion fear was subdivided into alarm and anxiety.

Lerner et al. (2015), in contrast, categorize emotions in two distinct types, integral and incidental emotions. They state that integral emotions arise from the judgement at hand and strongly shape decision-making. Even with cognitive information present suggesting an alternative course of action, integral emotions can be strongly influential (Lerner et al., 2015). In contrast, they explain that incidental emotions usually carry over from one situation to the

next affecting decisions that should not be related to that exact emotion. Even though emotions influence judgement and choice (Lerner et al., 2015), in many cases people do not realize when they are being influenced by incidental emotions (Andrade & Ariely, 2009).

Similarly, Yukalov (2022) divides emotions into three distinct groups. The first group includes emotions associated with positive characteristics, such as pleasant, good, or attractive. The second group encompasses emotions with negative connotations, such as unpleasant, bad, or repulsive. The third group consists of neutral emotions, which convey indifference or a lack of preference toward the given options (Yukalov, 2022).

In the context of the variety of emotions that exist, the current thesis focuses on anxiety, because it has significantly increased in prevalence over recent decades and is particularly relevant in shaping financial decision-making behaviors (Dyckxhoorn et al., 2024; Lerner & Keltner, 2000).

### **2.3 Anxiety**

Anxiety, as a subtype of emotion that everyone experiences to some extent at times, is far from being completely understood (Nater, 2021; Weiss & Cropanzano, 1996). Previous research has shown that anxiety is a particularly relevant emotion in the context of financial decision-making, as it increases risk aversion and influences evaluations of uncertainty (Lerner & Keltner, 2000; Loewenstein et al., 2001; Maner et al., 2007), which is why this research focuses on anxiety as an emotion. Thus, it is crucial to define anxiety as a first step to understanding its relationship to financial decision-making.

According to Kirsch and Windmann (2009), anxiety can be defined as a subjectively unpleasant emotional state that is typically accompanied by physiological symptoms, which differ across individuals but generally include an increased heart rate, respiration rate, and enhanced electrodermal reactivity. This response may also include physiological behavioral parameters, which can include restraint of ongoing behaviors or avoidance of the source of danger (Belzung & Griebel, 2001). The emotional state, anxiety, is usually complemented by concerns and worries as well as the desire to hide away, although many different forms exist (Kirsch & Windmann, 2009). Therefore, it is essential to distinguish between different types of anxiety. This thesis differs between state, trait, normal and pathological anxiety as they represent four different types of emotional experiences.

Based on Sydeman (2018), one of the main classifications is between anxiety as an immediate emotional state (state anxiety) and anxiety as a personality trait (trait anxiety). This differentiation was established by Spielberger et al. (1970) during the creation of the State-Trait

Anxiety Inventory (STAI), a self-report designed to measure feelings of immediate and dispositional anxiety (Sydeman, 2018). Hutchins and Young (2018) describe state anxiety as a temporary and conscious feeling of nervousness, worry, and tension experienced in an immediate moment. They further explain that, associated with arousal of the autonomic nervous system, state anxiety is stimulated by real or potential threatening situations and is accompanied by emotional, cognitive, and physiological transformations (Hutchins & Young, 2018). In comparison, Stewart and Antony (2017) define trait anxiety as a dispositional and chronic state which is linked to a relatively stable feeling towards future situations or uncertain events that could potentially be negative or threatening. People that experience high trait anxiety do so across a longer period of time and across a variety of situations (Stewart & Antony, 2017). This feeling of anxiety can become so overwhelming and can make it so hard to manage everyday life that some individuals need medical or psychological treatment to help gain control (Kirsch & Windmann, 2009).

Another important differentiation in relation to the concept of anxiety is between normal and pathological anxiety, which again shows that anxiety is not a unitary phenomenon (Belzung & Griebel, 2001; Emilien et al., 2002). According to Lader and Marks (1971), anxiety is normal in the sense that it is widespread and affects all individuals in daily life. Normal anxiety is often related to specific situations that can vary from one individual to another (Lader & Marks, 1971). Emilien et al. (2002) conclude that, in contrast, anxiety becomes pathological when it is more severe and frequent than one can tolerate. Pathological anxiety, as explained by Belzung and Griebel (2001), is involved when anxiety as the response to real or potential threats is excessive, which can include various forms of anxiety disorders on a clinical level, such as phobias, post-traumatic stress, panic and obsessive-compulsive disorders (Belzung & Griebel, 2001). Emilien et al. (2002) further state that pathological anxiety is typically chronic and can be so severe that it disrupts individuals' ability to function in daily tasks for a longer period.

Due to space limitations, this study will mostly focus on anxiety as a normal, non-chronic emotion (state anxiety), which may play a key role in influencing behavioral differences across a range of areas, such as decision-making (Hartley & Phelps, 2012). Since the focus lays on the general population in order to better understand consumer behavior on a broader scale, rather than limiting the scope to individuals experiencing pathological anxiety, in the remaining paper the term anxiety will be used exclusively to refer to normal anxiety.

## **2.4 Emotions and financial decision-making**

Having established a foundational understanding about the terms financial decision-making, emotions, and anxiety, we now turn to the broader interplay between emotions and financial decision-making. Despite the scarcity of research relating emotions to financial decision-making, awareness of the relevant emotional component to effective decision-making and financial competence is developing (Shapiro & Burchell, 2012). Therefore, this chapter delves into how emotions influence financial decision-making, particularly within the area of consumer financial behavior, before elaborating the specific interplay between anxiety and financial decision-making in the subsequent section.

### **2.4.1 Emotions and decision-making**

Based on Zeelenberg et al. (2008), emotions influence how people evaluate decisions, their outcomes, and thus their well-being. These authors further explain that the importance of emotion for decision-making is also evident in the fact that decision-making itself is often an emotional process. Their research emphasizes that individuals tend to undertake complicated decision processes only for important decisions and that emotions are also present after people have already decided. Since different emotions are associated with different goals, different emotions also have an individual impact on decision-making, as for instance, anger motivates people to move against the source of their anger and fear motivates individuals to move away from their source of fear (Zeelenberg et al., 2008). Lerner et al. (2015) agree that emotions are strong (harmful or beneficial) drivers of decision-making and even go so far as to define decision-making as a process through which emotions shape behavior and can motivate individuals to seek out positive or negative emotions.

### **2.4.2 Emotions and financial decision-making**

In the case of financial decision-making, it has been concluded that emotions play a crucial role, as they influence and modify financial decisions in various ways (Zaleskiewicz & Traczyk, 2020). It can be seen that this impact has its roots in the early stages of decision-making research of Kahneman and Tversky (1984), as risk taking is an important component in the financial decision-making context (Gärling et al., 2009). The early work of Kahneman and Tversky (1984) laid the foundation for understanding financial decision-making under emotions, particularly in the context of risk. They introduced the concept of a concave utility function of money, which shows how gains and losses are not perceived symmetrically, explaining that

individuals often take on more risk to avoid a certain loss, driven by the emotional weight of loss aversion (Kahneman & Tversky, 1984).

Emotions play a significant role in financial decision-making, especially under conditions of uncertainty, where making purely logical choices is more challenging (Forgas, 1995). Based on research from Brooks et al. (2022), this impact of emotions on financial decisions is now recognized and has been used to explain investor behavior. They explain how emotional traits influence the willingness to take risks but also the preferred investment horizons. For example, angry individuals are more prone to invest over a longer period and tend to hold out before selling either at loss or gain (Brooks et al., 2022).

### **2.4.3 Emotions and consumer financial decision-making**

According to Conchar (2004), emotional responses, such as fear and anxiety shape perceptions of uncertainty and potential losses also in consumer financial decision-making, making risk a central role in the concept of consumer spending behaviors (Conchar, 2004). Each emotion is associated with a different level of risk perception (Achar et al., 2016). Fear for example leads to pessimistic risk perceptions and anger to optimistic risk perceptions (Achar et al., 2016). Based on Gärling et al. (2009), consumers with high confidence in the future are generally more likely to take financial risks, which is why this current thesis will focus on the relationship between emotions and consumer financial decision-making. However, it is pivotal to first understand three different concepts related to emotions in consumer financial decision-making: emotional spending, emotion-focused coping mechanism leading to impulsive purchasing, and intertemporal choice.

First, the concept of emotional spending refers to spending money during a period of intensified emotions such as stress, disappointment or sadness (Naviaux & Janne, 2023). According to He and Li (2016), sad-spending is a typical kind of compensatory consumption and indicates an effect where consumers spend more money when they are sad. They conclude in their study that sad-spending could improve consumers' positive emotions, but are not certain that it could decrease negative emotions (He & Li, 2016). This effect is also supported by Achar et al. (2016), as they mention in their research how incidental emotions, such as sadness, lead to increased consumption of individuals to try and regulate their feelings.

The phenomenon of emotional spending is rooted in psychological processes, such as coping mechanisms, which comprises one's mental and behavioral attempts to manage, reduce or endure a stressful situation (Folkman, 2020). Endler and Parker (1994) identify three different

coping strategies that can be employed in response to different stressors: task-focused, emotion-focused, and avoidance coping (Endler & Parker, 1994; Kovács et al., 2022). As a way of immediate emotional discomfort reduction, emotion-focused coping can lead to impulsive purchases, as it involves responses that are focused on the self, such as emotional responses to a stressful situation, and can be considered adaptive or maladaptive (Kovács et al., 2022).

Lastly, while emotion-focused coping explains how consumers manage immediate emotional distress, it can also have implications on intertemporal choice, which refers to the process in which people weigh the profits and losses at different time points (Jiang et al., 2022) and generally deals with the decision whether to delay gratification in hopes of gaining larger future rewards (Shenhav et al., 2017). An example for this trade-off between costs and benefits at different points in time is choosing between spending money now or saving it for the future. On the contrary, a concept that clearly favors short-term over long-term consequences of action is impulsive decision-making (Hinson et al., 2003). According to Lee and Yi (2008), emotions and perceived risk are important predictors of impulsive buying and thus also important determinants of consumer behavior (Lee & Yi, 2008).

Guo et al. (2022) state that both financial risk decision and intertemporal decision-making processes are affected by many factors and in the past few decades the interest in the affecting factors of financial decision-making has increased. They further explain that emotions can change financial decision-making due to their nature of incurring meaning to the available choice and conclude that individuals' financial decisions are influenced by many factors such as emotion, emotional intelligence, behavioral biases and acute stress (Guo et al., 2022). Thus, in the following section, the relationship between the specific emotion anxiety and financial decision-making will be reviewed in depth.

## **2.5 Anxiety and financial decision-making**

While previous studies have proven that emotions constitute various drivers of decision-making (Lerner et al., 2015), anxiety as a phenomenon that everyone experiences to some extent at times is far from being completely understood (Nater, 2021). Therefore, this chapter focuses on the specific role of anxiety in financial decision-making, exploring how this emotion affects financial decisions but also how financial decisions can lead to anxiety within individuals that in turn impacts their decision-making.

### **2.5.1 Anxiety and decision-making**

Anxiety plays a significant role in influencing decision-making (Miu et al., 2008), with higher levels of anxiety shown to negatively affect the decision-making process (Polat et al., 2019). Various researchers, such as Chapman (2006), Hartley and Phelps (2012), Maner et al. (2007), Maner and Schmidt (2018) and Ramirez et al. (2015) have found explanations on how anxiety can influence decisions. Polat et al. (2019) summarizes three main explanations. First, anxiety affects the processing of knowledge, leading individuals to focus on threat-related information, interpret ambiguous stimuli negatively, and adopt harm-avoidant behaviors. Second, anxiety disrupts the effective functioning of the attentional system, distracting focus away from the subject and instead drawing it another place. As a result, decision-makers often focus on reducing their anxiety over finding optimal solutions to the problem at hand. Lastly, anxiety might cause the tendency of taking excessive risks or avoiding risks completely.

### **2.5.2 Anxiety and financial decision-making**

In the specific context of financial decision-making, anxiety has many different effects, which have been highlighted by various researchers. In the following, this thesis will give three examples on how anxiety can impact different concepts in relation to financial decisions.

First, anxiety can impact risk aversion. As Maner et al. (2007) for instance explain in their study, anxiety can lead to increased risk-aversion since high levels of anxiety may cause individuals to overestimate the likelihood of negative financial outcomes, thereby amplifying their tendency to avoid risks even when doing so results in lower financial gains (Maner et al., 2007).

Second, anxiety can impact short-term focus. Kirsch and Windmann (2009) review, for example, how individuals that experience anxiety are more likely to engage in avoidance behaviors, which can lead to decision patterns characterized by excessive caution. Researchers describe this effect as a myopia for the future, where anxious individuals focus on immediate gains or losses, neglecting long-term consequences (Kirsch & Windmann, 2009). This focus on the present becomes particularly significant in financial decision-making, where balancing short-term risks with long-term goals is crucial (Kirsch & Windmann, 2009).

Further, anxiety can impact investment decisions. Gambetti and Giusberti (2012) propose, in their research, that anxious people prefer short-term savings accounts and selling any risky assets held as quickly as possible. So, people with anxiety are willing to lock in a loss in order to remove the uncertainty involved in risky investments, thus obtaining a sense of relief and control (Brooks et al., 2022; Gambetti & Giusberti, 2012).

After elaborating how anxiety affects financial decision-making, it is crucial to mention another connection between these two concepts because financial decisions can also make people feel anxious, which in turn then impacts the decision-making process again. Shapiro and Burchell (2012) describe this specific kind of anxiety financial phobia or financial anxiety and define it as an individuals' unhealthy attitude towards effectively handling personal finances. They further note that this construct is distinct from general anxiety and depression, reflecting its unique nature as a financial-specific emotional response. While financial anxiety may share elements with both state and trait anxiety, it operates independently, influencing behaviors related to financial management (Shapiro & Burchell, 2012). The researchers highlight that financial anxiety remains a relatively underexplored area of study despite its relevance for understanding financial behavior and further point out that a strong negative emotional response of financial anxiety is even associated with financial mismanagement. This type of anxiety has been shown to change information processing, causing people to engage in avoidant behavior towards financial information, which can lead to poor decision outcomes, such as overspending or accumulating debt (Shapiro & Burchell, 2012).

### **2.5.3 Anxiety and consumer financial decision-making**

From compulsive shopping to impulsive spending, anxiety shapes how individuals make every day financial decisions, often prioritizing emotional relief over rational outcomes (Malkoc & Zauberaman, 2019; Sussman et al., 2023). This last section of the literature review explores the intersection of anxiety and consumer financial decision-making, highlighting its impact on spending, saving, and consumption patterns.

Many studies highlight a strong relationship between anxiety and shopping behavior, with individuals often engaging in shopping as a way to relieve feelings of anxiety (Kalhour & Ng, 2015). There are three strands of research that support a link between anxiety and shopping behavior.

First, anxiety is closely linked to compulsive shopping, where the act of shopping serves as a psychological outlet, providing temporary emotional relief and reducing anxiety levels (Mawi et al., 2019).

Second, panic buying is a concept that is closely linked to consumers' perceptions of anxiety during specific situations, often resulting in excessive consumption (Cham et al., 2023). This concept developed by Cham et al. (2023) draws on the theory of stress and coping by Lazarus and Folkman (1984) and is understood as consumers' attempt to regain a sense of control amidst

increased uncertainty, higher risk, and amplified anxiety (Yuen et al., 2020). Cham et al. (2023) further review that, even though scholars largely agree that panic buying serves as an anxiety-coping mechanism to counter uncertainty, some researchers have separated panic buying into casual pursuits (wants) and critical requirements (needs). Casual pursuits are often motivated by impulsivity, irrationality, and a lack of self-control, which are amplified in anxiety-driven environments (Williams & Grisham, 2012). In contrast, panic buying driven by necessity reflects a focus on critical needs rather than desires, emphasizing the role of perceived urgency during times of uncertainty (Cham et al., 2023).

Third, there is evidence that consumers under stress strategically allocate their financial resources in two contrasting ways (Durante & Laran, 2016). On one hand, they propose that stressful situations and anxiety may lead to increased saving behavior, as individuals seek the availability of resources for future needs. On the other hand, anxiety can drive increased spending behavior, particularly on products perceived as necessities, which provide a sense of control in an otherwise uncertain environment (Durante & Laran, 2016).

Given these past studies supporting a link between anxiety and comfort-spending, it is reasonable to expect that different types of anxiety impact consumer's spending behaviors. Therefore, this thesis focuses primarily on state anxiety and secondarily on financial anxiety to examine their influence on consumer spending behaviors.

The decision to focus on state anxiety as the primary type of anxiety stems from the context of university students, who often face situational pressures that evoke temporary emotional states (Archuleta et al., 2013). Research suggests that heightened anxiety among young adults reflects increasing situational stressors, such as academic demands and social pressures, which are more likely to manifest in state rather than trait anxiety (Andrews & Wilding, 2004). While trait anxiety reflects a chronic, personality-linked predisposition to anxiety, this thesis prioritizes state anxiety because it captures the immediate and situational nature of decision-making in high-pressure environments like higher education (Stewart & Antony, 2017). Thus, I hypothesize the following:

*H1: University students experiencing higher levels of state anxiety will show an increased likelihood of engaging in comfort-seeking spending as a form of financial decision-making.*

Financial anxiety serves as a secondary focus, providing a domain-specific lens through which to explore the relationship between financial anxiety and consumer financial decision-making.

Unlike state anxiety, which reflects an emotional response to stress (Hutchins & Young, 2018), financial anxiety specifically relates to concerns about managing personal finances (Shapiro & Burchell, 2012). Including financial anxiety as a secondary variable allows for an exploration of how a specialized form of anxiety may uniquely shape spending behaviors of university students in the context of consumer decision-making, complementing the broader situational focus captured by state anxiety. Therefore, the following hypothesis is proposed:

*H2: University students experiencing higher levels of financial anxiety will show an increased likelihood of engaging in comfort-seeking spending as a form of financial decision-making.*

In addition to the hypotheses, this study explores alternative ways in which state and financial anxiety might be related to determine comfort-seeking spending behavior. While the main hypotheses focus on the direct effects of state and financial anxiety on spending behaviors, an exploratory mediation analysis will investigate whether state anxiety indirectly influences comfort-seeking spending through financial anxiety. This analysis aims to provide preliminary insights into potential relationships, acknowledging the limitations in establishing causal directions.

### **3. Research Methodology**

#### **3.1 Design**

This study employed a correlational design to research the relationship between anxiety and financial decision-making behaviors in a university student population. The main goal was to see if different levels of state anxiety and financial anxiety influence participants' tendencies toward comfort-seeking or impulsive financial decisions. Data was collected via the online survey platform Qualtrics, where a pilot study ( $N = 4$ ) was completed before starting data collection.

#### **3.2 Participants**

To align with the study's demographic focus, only currently enrolled university students were eligible to participate. Recruitment was conducted through social media platforms such as WhatsApp and Instagram, as well as academic and personal networks, ensuring a relevant and accessible pool of participants within the student population.

A total of 176 participants were recruited for this study. However, 15 responses were excluded as the participants were not currently enrolled in university, resulting in a final sample size of

161 university students. An attention check question was included to ensure data quality. The attention check instructed participants to select the option “never” to demonstrate they were paying attention. This item was embedded randomly within the financial anxiety situation section of the survey, alongside seven other scale items. To assess compliance, a dummy variable was created, recording responses as 1 for correct answers (“never”) and 0 for all other responses. One participant (0.6%) failed the attention check and was excluded from the analyses. For categorical variables, the frequencies of key demographic and group variables were reported. Regarding gender, 67 participants (41.9%) identified as male, and 93 participants (58.1%) identified as female. Concerning educational background, 94 participants (66.2%) were master’s degree students and 48 participants (33.8%) were bachelor’s degree students. Eighteen responses were missing for education level. For more details on the population statistics, see Appendix 1.

### **3.3 Materials**

To effectively study the influence of state anxiety on financial decision-making, tools such as the State-Trait Anxiety Inventory (STAI), the Financial Anxiety Scale (FAS), specific financial decision-making scenarios and two financial behavior inventories were selected to capture both the emotional and behavioral dimensions of participants’ responses. For further details regarding the survey, please refer to Appendix 2.

The State-Trait Anxiety Inventory (STAI) is a well-known 40-item instrument developed by Spielberger et al. (1983), which measures respectively transient and enduring levels of anxiety (Kvaal et al., 2005). Unfortunately, access to the original study by Spielberger et al. (1983), in which the STAI was fully introduced, is not freely available. However, Marteau and Bekker (1992) note that the STAI consists of two 20-item scales that measure both state and trait anxiety. They argue that its length - 40 items in total - presents significant challenges in studies with limited time for questionnaire completion or with populations unwilling or unable to engage with lengthy, repetitive scales. To address these limitations, they developed a standardized short form of the state anxiety subscale, the STAI-6, which is a six-item version consisting of only state anxiety items – three with the highest anxiety present and three with the highest anxiety absent items. In their research they conclude that the STAI-6 produces scores similar to those obtained using the full 20-item scale for state anxiety, demonstrating acceptable reliability and sensitivity across groups with normal and elevated anxiety levels (Marteau & Bekker, 1992). The STAI-6 offers several advantages, making it particularly suitable for this study. Based on Marteau and Bekker (1992), use of the brief questionnaire is likely to maximize

response rates and minimize the number of response errors and unanswered items, which leads to improvement of validity and generalizability of findings. Additionally, they note that the shorter version minimizes completion and scoring time, making it ideal for studies with tight time constraints. For these reasons, this study will utilize the six items from the STAI-6 to measure state anxiety efficiently while maintaining the sensitivity and reliability of the original scale.

Similarly, trait anxiety was assessed using the trait subscale of the STAI. However, since trait anxiety was solely used as a control variable to ensure that the results are not confounded by pre-existing tendencies of trait anxiety, only three of the 20 items were used. These three items were selected based on Zsido et al. (2020), who identified them as among the most psychometrically reliable and discriminative items in the trait subscale through item response theory analyses. This selection ensures efficiency while maintaining conceptual validity (Zsido et al., 2020).

The Financial Anxiety Scale (FAS), developed by Archuleta et al. (2013), can be helpful in assessing participants' current self-reported level of financial anxiety. The scholars note that the scale is not designed as a diagnostic tool for anxiety but serves as a valuable resource for researchers to explore individuals' anxiety related to money. For researchers, the scale offers a reliable means to investigate various aspects of financial mental health, enabling deeper exploration into the relationship between anxiety and financial behaviors (Archuleta et al., 2013).

To assess financial decision-making among university students, the survey included six scenario-based financial decision-making scenarios as well as two behavioral inventories specifically designed for this study. The scenarios were included to assess participants' decision-making tendencies in specific, hypothetical, high-pressure contexts. Each scenario was designed to reflect realistic situations that university students commonly experience and encouraged participants to imagine themselves in relatable situations, thereby capturing situational tendencies in convenience-seeking spending. In contrast, the two behavioral inventories were structured to measure broader, habitual spending tendencies. The comfort-seeking consumption inventory focused on comfort-seeking behaviors (e.g., indulgent spending), and the functional consumption inventory on functional financial behaviors (e.g., saving behavior), reflecting long-term practicality and future-oriented financial decisions.

## 3.4 Description of variables

### 3.4.1 Independent variable

State anxiety, the independent variable for H1, was measured using the six-item short form of the State-Trait Anxiety Inventory (STAI-6; Marteau & Bekker, 1992). Participants were asked to indicate how they felt at the moment while completing the survey, providing a situational measure of their anxiety levels. Responses were recorded on a 4-point Likert scale ranging from 1 (*Not at all*) to 4 (*Very much*). An example item includes "I feel calm."

Financial anxiety, the independent variable for H2, was measured using the Financial Anxiety Scale (FAS; Archuleta et al., 2013). Participants were asked to indicate how they feel regarding their financial situation and how often they feel this way by selecting the option that best describes their experience. Responses were recorded on a 7-point Likert scale ranging from 1 (*Never*) to 7 (*Always*), with higher scores indicating larger levels of financial anxiety. An example item includes "I feel anxious about my financial situation."

### 3.4.2 Dependent variable

The dependent variables for both H1 and H2 are financial decision-making behavior in comfort-seeking and functional spending contexts.

Comfort-seeking spending was assessed using the five items of the comfort-seeking consumption inventory and the six scenario-based financial decision-making questions. First, participants rated their likelihood of engaging in specific behaviors on a 5-point Likert scale ranging from 1 (*Not at all likely*) to 5 (*Very likely*) within the comfort-seeking consumption inventory before being presented the scenario-based questions that were also recorded on a 5-point Likert scale. An example of a behavior is "Taking a car-sharing service (e.g. Uber, Taxi) to avoid additional stress" and an example of a scenario-based question is: "You have been preparing for the upcoming exam week that is starting tomorrow, feeling tense and anxious. You consider ordering takeout to save time, even though it's pricier than cooking yourself and eating what you have at home. How likely are you to treat yourself to ordering takeout?"

Functional spending, captured through five functionality-oriented items of the functional consumption inventory, was treated as a distinct variable from convenience-seeking spending. This variable represents financial decisions driven by long-term practicality and future benefits rather than immediate emotional relief. A sample item included: "Buying functional clothing (e.g. formalwear, workout clothes)" which was assessed on a 5-point Likert scale ranging from 1 (*Not at all likely*) to 5 (*Very likely*). This variable was included to explore whether anxiety

leads to more consumption overall or whether it might be a specific effect on comfort-seeking behavior.

This inclusion of both comfort-seeking and functional spending as dependent variables provided a balanced perspective, to better distinguish the specific impact of anxiety on short-term, comfort-driven financial behaviors.

### **3.4.3 Control variables**

Age, gender and nationality were included as control variables to ensure that the study's findings are specific to the primary relationships of interest - anxiety and financial decision-making. By controlling for these demographic factors, potential variability in financial decision-making and anxiety responses are minimized, enabling a clearer interpretation of the influence. To correctly use the variable nationality in the analysis, it was categorized into Anglophone countries, which included participants from English-speaking countries such as the United States, Canada, and Australia, and other European countries, which included participants from continental European nations that do not have English as the primary language. This categorization was used as a control variable to account for potential cultural differences in financial decision-making.

Trait anxiety was included as a control variable in the analysis as well. To control for general anxiety levels, three additional items from the trait anxiety scale of the STAI were included, asking participants how they feel in general. By accounting for trait anxiety, the analysis aims to isolate the influence of state anxiety on consumer spending behaviors and ensure that the results are not confounded by pre-existing tendencies of trait anxiety. A sample item included "I worry too much over something that really doesn't matter."

## **3.5 Procedure**

The survey began with an introduction explaining the study's purpose, ensuring participant confidentiality, and obtaining informed consent. Following the introduction, the survey sections were presented in a randomized order to minimize potential order effects and ensure that responses were not influenced by the sequence of the tasks. The survey included four key sections. The Financial Anxiety Scale (Archuleta et al., 2013) consisted of seven statements assessing participants' emotional responses to their financial situation. The State-Trait Anxiety Inventory (STAI-6) measured participants' current emotional state (Kvaal et al., 2005; Marteau & Bekker, 1992), followed by three items from the trait anxiety scale (Zsido et al., 2020) to control for general anxiety levels. The behavioral inventories evaluated participants' likelihood

of engaging in various behaviors, with five items measuring comfort-seeking behaviors and five measuring healthy/functional behaviors. Finally, participants completed six financial decision-making scenarios, where they were asked how they would act in specific financial situations. The survey ended with an optional feedback section as well as an appreciation note for taking the time to participate.

## **4. Results**

### **4.1 Data preparation and scale assessment**

The data collection for this thesis was done by using the Statistical Package for the Social Sciences (SPSS) software. Additional information regarding the data preparation and scale assessment can be found in Appendix 3.

To begin the analysis, a reliability analysis was conducted for each scale used in the study to measure the constructs of interest: state anxiety, trait anxiety, financial anxiety, financial decision-making, functional spending, and comfort-seeking spending. The reliability analysis was conducted using Cronbach's  $\alpha$  to assess internal consistency. According to Bland and Altman (1997), Cronbach's  $\alpha$  values above .70 are generally considered satisfactory for research purposes. Scales with  $\alpha$  values below .70 can still be used with caution, but values lower than .60 suggest poor reliability and the need for further refinement (Bland & Altman, 1997).

For the Cronbach's  $\alpha$  reliability analysis of the short version of the STAI, three of the six items were reverse-coded to ensure consistency in the scoring, with higher values reflecting higher levels of anxiety. The STAI-6 demonstrated good internal consistency, with a Cronbach's  $\alpha$  of .86, exceeding the threshold of .70. All six items were retained, and the individual scores were averaged to compute a single state anxiety score for each participant. Similarly, the trait anxiety scale, consisting of three items, achieved a Cronbach's  $\alpha$  of .76, which also meets the reliability criterion. All items were retained, and the scores were averaged to generate a composite trait anxiety score. The financial anxiety scale, which included seven items, exhibited excellent internal consistency, with a Cronbach's  $\alpha$  of .96. This high value indicates that the items are strongly correlated and measure a cohesive construct without redundancy concerns. All seven items were retained, and the scores were averaged to create a financial anxiety score.

Further, the comfort-seeking consumption inventory, which consists of five items, achieved a Cronbach's  $\alpha$  of .76, meeting the reliability criteria and resulting in the retention of all items. The functional consumption inventory, including five items, generated a Cronbach's  $\alpha$  of .71,

indicating acceptable internal consistency and consequently, the variable was computed as the average score of the five items. Lastly, the six financial decision-making scenarios demonstrated a sufficient internal consistency with a Cronbach's  $\alpha$  of .74. Also here, all items were retained, and the scores were summed. Therefore, all scales exceeded the reliability threshold of .70, confirming that all scales had a satisfactory level of reliability.

To further prepare the data for later analysis, the conceptual similarity and statistical relationship between the financial decision-making scenarios and the five comfort-seeking consumption items from the comfort-seeking behavior inventory was assessed through a bivariate correlation analysis. The results showed a positive correlation ( $r = .78, p < .001$ ), indicating that these variables measure similar constructs. Based on this finding, they were combined into a single variable, convenience-seeking spending, to better capture the concept of convenience-seeking spending. On the contrary, the five functional items of the functional spending behavior inventory demonstrated only moderate correlations with both the financial decision-making scenarios ( $r = .53$ ) and the comfort-seeking behavior inventory ( $r = .55$ ) and was therefore retained as a separate variable to reserve its distinctiveness.

## 4.2 Descriptive statistics

Table 1 presents the descriptive statistics for all continuous variables that were calculated to summarize the dataset. Table 2 presents Pearson's correlation coefficients, offering first insights into the relationships between the variables.

**Table 1**

<i>Descriptive Statistics</i>					
	<i>N</i>	Minimum	Maximum	M	SD
State anxiety	160	1.67	3.33	2.35	0.31
Trait anxiety	160	0.50	2.00	1.27	0.38
Financial anxiety	160	1.17	7.67	3.34	1.73
Functional spending	160	1.00	5.00	3.05	0.86
Convenience-seeking spending	160	1.00	5.00	3.44	0.85
Valid N	160				

**Table 2***Correlations*

	State	Trait	FAS	FDM	FS	CS	Gender	Nationality	Enrollment	Age
State	1	0.16*	0.27**	0.21**	-0.28**	0.22**	0.02	0.07	-0.06	-0.05
Trait	0.16*	1	0.45**	0.32**	-0.09	0.34**	-0.32**	-0.02	0.05	-0.03
FAS	0.27**	0.45**	1	0.35**	-0.28**	0.42**	0.03	0.24**	-0.03	-0.02
FDM	0.21**	0.32**	0.35**	1	-0.53**	0.93**	-0.20*	0.29**	0.02	-0.05
FS	-0.28**	-0.09	-0.28**	-0.53**	1	-0.57**	0.00	-0.33**	-0.05	0.07
CS	0.22**	0.34**	0.42**	0.93**	-0.57**	1	-0.22**	0.27**	0.00	-0.02
Gender	0.02	-0.32**	0.03	-0.20*	0.00	-0.22**	1	0.20*	0.10	0.04
Nationality	0.07	-0.02	0.24**	0.29**	-0.33**	0.27**	0.20*	1	0.16	-0.17*
Enrollment	-0.06	0.05	-0.03	0.02	-0.07	0.00	0.10	0.16	1	-0.42**
Age	-0.05	0.03	-0.02	-0.05	0.07	-0.02	0.04	-0.17*	-0.42**	1

Note: \* = Correlation is significant at the .05 level (2-tailed).

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

### 4.3 Hypothesis testing

#### 4.3.1 The Effect of State Anxiety on Comfort-Seeking-Spending

To test the hypothesis that university students experiencing higher levels of state anxiety are more likely to engage in convenience-seeking spending (H1), a multiple regression analysis was performed. The model included state anxiety as the primary predictor, with age, gender, and nationality included as control variables. Convenience-seeking spending served as the dependent variable. For more details, see Appendix 4.

The overall model was statistically significant,  $F(4, 155) = 9.14, p < .001$ , with an adjusted  $R^2$  value of .17, indicating that the predictors collectively explained 17% of the variance in convenience-seeking spending. State anxiety was found to be a significant positive predictor,  $b = 0.10, SE = 0.03, \beta = .21, p = .005$ , showing that higher levels of state anxiety were associated with increased convenience-seeking spending. Among the control variables, gender was a significant negative predictor,  $b = -0.50, SE = 0.13, \beta = -0.29, p < .001$ , indicating that male participants reported lower levels of convenience-seeking spending compared to female participants. Nationality also emerged as a significant positive predictor,  $b = 0.63, SE = 0.15, \beta = .32, p < .001$ , with Anglophone participants reporting higher levels of convenience-seeking

spending compared to the other European participants. Age, however, was not a significant predictor,  $b = 0.01$ ,  $SE = 0.02$ ,  $\beta = .05$ ,  $p = .498$ .

To further validate the hypothesis and ensure the specificity of the relationship between state anxiety and convenience-seeking spending, a second regression was conducted using functional spending as the dependent variable. Functional spending can be seen as an opposing behavioral tendency, focusing on practical and future-oriented financial choices. This additional analysis was performed to control for general spending tendencies and to demonstrate that state anxiety specifically drives short-term, comfort-oriented financial decisions, rather than influencing all types of spending behaviors equally. The overall model was statistically significant as well,  $F(4, 155) = 8.19$ ,  $p < .001$ , with an adjusted  $R^2$  value of .15, indicating that the predictors collectively explained 15% of the variance in functional spending. State anxiety was found to be a significant negative predictor,  $b = -0.12$ ,  $SE = 0.03$ ,  $\beta = -.18$ ,  $p = .029$ , showing that higher levels of state anxiety were associated with decreased functional spending.

When examining the effects of state anxiety on the two types of spending, the results revealed a significant positive effect on convenience-seeking spending ( $\beta = .21$ ) and a significant negative effect on functional spending ( $\beta = -.18$ ). This indicates that state anxiety does not lead to an overall increase in consumption but instead shifts spending patterns specifically toward comfort-seeking consumption.

Finally, when controlling for trait anxiety, along with age, gender, and nationality, state anxiety remained a significant predictor of convenience-seeking spending,  $b = 0.46$ ,  $SE = 0.20$ ,  $\beta = 0.16$ ,  $p = .022$ . This indicates that even when accounting for trait anxiety, students with higher levels of state anxiety were still more likely to engage in comfort-seeking spending behaviors. However, the effect size of state anxiety decreased compared to the earlier model, suggesting some shared variance between state and trait anxiety. Additionally, trait anxiety itself was a significant predictor of convenience-seeking spending,  $b = 0.56$ ,  $SE = 0.17$ ,  $\beta = 0.25$ ,  $p < .001$ , highlighting its independent contribution.

#### **4.3.2 The Effect of Financial Anxiety on Comfort-Seeking-Spending**

Having established the influence of state anxiety on spending behaviors, I next examined the role of financial anxiety in driving these behaviors. To test H2, that university students with higher levels of financial anxiety are more likely to engage in convenience-seeking spending behaviors, separate regression analyses were conducted for convenience-seeking spending and

functional spending as dependent variables. Both models included financial anxiety as the main predictor and controlled for age, gender, and nationality.

The first model examined the effect of financial anxiety on convenience-seeking spending. The overall model was statistically significant,  $F(5, 136) = 11.14, p < .001$ , with an adjusted  $R^2$  value of .26, indicating that the predictors collectively explained 26% of the variance in convenience-seeking spending. Financial anxiety was a significant positive predictor of convenience-seeking spending ( $b = 0.20, SE = 0.04, \beta = 0.40, p < .001$ ), suggesting that higher levels of financial anxiety are associated with increased convenience-seeking spending. Among the control variables, gender was again a significant negative predictor ( $b = -0.41, SE = 0.12, \beta = -0.24, p = .002$ ), with males reporting lower levels of convenience-seeking spending compared to females. Nationality was also a significant positive predictor ( $b = 0.42, SE = 0.15, \beta = 0.21, p = .008$ ), with Anglophone participants reporting higher levels of convenience-seeking spending than the other European participants. Similarly to H1, age was not a significant predictor ( $b = 0.02, SE = 0.02, \beta = 0.09, p = .292$ ).

To further test the role of financial anxiety in convenience-seeking spending, I conducted a complementary analysis using functional spending as the dependent variable to control for opposing behavioral tendencies and highlight the distinct relationship hypothesized in H2. The overall model was statistically significant as well,  $F(4, 155) = 7.12, p < .001$ , with an adjusted  $R^2$  value of .13, indicating that the predictors collectively explained 13% of the variance in functional spending. Financial anxiety was a significant negative predictor of functional spending ( $b = -0.11, SE = 0.04, \beta = -0.22, p = .005$ ), showing that higher levels of financial anxiety are associated with decreased functional spending.

The results demonstrate distinct relationships between financial anxiety and university students' spending behaviors. Financial anxiety had a significant positive effect on convenience-seeking spending ( $\beta = 0.40$ ) and a significant negative effect on functional spending ( $\beta = -0.22$ ). These opposing directions suggest that financial anxiety does not lead to an overall increase in consumption but instead shifts spending patterns specifically toward short-term, comfort-oriented behaviors, while reducing practical, long-term spending.

When controlling for trait anxiety, along with age, gender, and nationality, financial anxiety, remained the strongest predictor of convenience-seeking spending,  $b = 0.20, SE = 0.04, \beta = 0.40, p < .001$ . Similarly to H1, this suggests that even when considering the influence of trait anxiety, students with higher levels of financial anxiety were significantly more likely to engage in comfort-seeking spending behaviors. Trait anxiety also contributed significantly to

convenience-seeking spending,  $b = 0.29$ ,  $SE = 0.18$ ,  $\beta = 0.18$ ,  $p = .001$ , though its effect was smaller compared to financial anxiety.

#### **4.4 Exploratory analysis**

The exploratory analyses conducted to better understand the relationships between state anxiety, financial anxiety, and convenience-seeking spending was tested with two mediation analyses using the PROCESS macro (Model 4). The first analysis tested the original mediation model, in which financial anxiety mediates the relationship between state anxiety and convenience-seeking spending. A second, reversed mediation model was explored to assess whether financial anxiety acts as the independent variable, with state anxiety mediating its effects on spending behaviors. Additionally, trait anxiety was included as a covariate in both models to control for individual differences in dispositional anxiety, ensuring a more robust examination of the relationships among the variables. For more details, see Appendix 5.

##### **4.4.1 The Mediation Effect of Financial Anxiety on Comfort-Seeking-Spending and State Anxiety**

Building on the observed relationships between anxiety and spending behaviors, the exploratory analysis examines whether financial anxiety mediates the effect of state anxiety on convenience-seeking spending, offering insights into the underlying mechanisms driving these behaviors.

The results of the exploratory mediation analysis showed that state anxiety significantly predicted financial anxiety (*Path a*),  $b = 0.99$ ,  $SE = 0.39$ ,  $p = .011$ , 95% CI [0.23, 1.76]. This indicates that higher levels of state anxiety are associated with greater financial anxiety. Among the covariates, nationality was a significant predictor of financial anxiety,  $b = 0.87$ ,  $SE = 0.28$ ,  $p = .002$ , 95% CI [0.32, 1.42], with Anglophone participants reporting higher financial anxiety than non-Anglophone participants. Neither gender ( $p = .076$ ) nor age ( $p = .631$ ) were significant predictors of financial anxiety.

When predicting convenience-seeking spending (*Path b*), financial anxiety emerged as a significant positive predictor,  $b = 0.14$ ,  $SE = 0.04$ ,  $p = .001$ , 95% CI [0.06, 0.22], showing that higher financial anxiety is associated with increased convenience-seeking spending. However, the direct effect of state anxiety on convenience-seeking spending (*Path c'*) was not significant when controlling for financial anxiety,  $b = 0.32$ ,  $SE = 0.20$ ,  $p = .103$ , 95% CI [-0.07, 0.71]. Among the covariates, nationality was a significant predictor of convenience-seeking spending,  $b = 0.49$ ,  $SE = 0.14$ ,  $p < .001$ , 95% CI [0.21, 0.78], with Anglophone participants reporting

higher convenience-seeking spending. Gender was also significant,  $b = -0.41$ ,  $SE = 0.13$ ,  $p = .002$ , 95% CI [-0.66, -0.16], with males reporting lower convenience-seeking spending compared to females. Age was not a significant predictor of convenience-seeking spending ( $p = .556$ ).

The indirect effect of state anxiety on convenience-seeking spending through financial anxiety was significant,  $b = 0.14$ , Bootstrapped  $SE = 0.07$ , 95% Bootstrapped CI [0.03, 0.30]. This supports the exploratory analysis indicating that financial anxiety mediates the relationship between state anxiety and convenience-seeking spending. However, the direct effect of state anxiety on convenience-seeking spending remained non-significant, highlighting financial anxiety as the primary mechanism linking state anxiety to spending behaviors.

#### **4.4.2 The Mediation Effect of State Anxiety on Comfort-Seeking-Spending and Financial Anxiety**

The results of the exploratory mediation analysis, with financial anxiety as the independent variable and state anxiety as the mediator, showed that financial anxiety significantly predicted state anxiety (*Path a*),  $b = 0.04$ ,  $SE = 0.02$ ,  $p = .011$ , 95% CI [0.01, 0.07]. This indicates that higher levels of financial anxiety are associated with increased state anxiety. Among the covariates, none were significant predictors of state anxiety, including trait anxiety ( $p = .485$ ), age ( $p = .589$ ), nationality ( $p = .971$ ), and gender ( $p = .645$ ).

When predicting convenience-seeking spending (*Path b*), state anxiety was not a significant predictor,  $b = 0.32$ ,  $SE = 0.20$ ,  $p = .103$ , 95% CI [-0.07, 0.71]. However, the direct effect of financial anxiety on convenience-seeking spending (*Path c'*) remained significant,  $b = 0.14$ ,  $SE = 0.04$ ,  $p = .001$ , 95% CI [0.06, 0.22], indicating that financial anxiety directly influences convenience-seeking spending.

The indirect effect of financial anxiety on convenience-seeking spending through state anxiety was not significant,  $b = 0.01$ , Bootstrapped  $SE = 0.01$ , 95% Bootstrapped CI [-0.003, 0.038]. This suggests that state anxiety does not mediate the relationship between financial anxiety and convenience-seeking spending.

Among the covariates, nationality was a significant predictor of convenience-seeking spending,  $b = 0.49$ ,  $SE = 0.14$ ,  $p < .001$ , 95% CI [0.21, 0.78], with Anglophone participants reporting higher convenience-seeking spending compared to non-Anglophone participants. Gender was also significant,  $b = -0.41$ ,  $SE = 0.13$ ,  $p = .002$ , 95% CI [-0.66, -0.16], with males reporting

lower convenience-seeking spending compared to females. Neither age ( $p = .556$ ) nor trait anxiety ( $p = .137$ ) were significant predictors of convenience-seeking spending.

## **5. Discussion**

In this thesis, I aimed to answer the research question of how anxiety influences consumer financial decision-making behaviors among university students. Specifically, the roles of state anxiety and financial anxiety in shaping convenience-seeking spending were explored. The literature review revealed a gap in understanding the influence of state and financial anxiety on spending patterns, leading to the formulation of two hypotheses tested through multiple regression.

The results of this study confirmed H1, which predicted that state anxiety would increase convenience-seeking spending. Existing research supports this finding, as Lerner and Keltner (2000) and Polat et al. (2019) have demonstrated that anxiety increases sensitivity to perceived risks and uncertainties. The significant positive association between state anxiety and convenience-seeking spending observed in this study aligns with prior findings that state anxiety influences short-term, reactive decision-making (Maner et al., 2007). This suggests that increased state anxiety shifts individuals' focus on behaviors that offer instant comfort and ease, such as convenience-oriented purchases, as a coping mechanism for managing stress.

This behavioral shift can be further understood through prospect theory, one of the classical theories explored in the literature review (Kahneman & Tversky, 1979). According to that theory, individuals that experience anxiety may frame convenience-seeking spending as a gain because it alleviates immediate emotional discomfort. Conversely, functional spending, which often requires more effort and foresight, could be perceived as a potential loss of emotional resources, making it less appealing during periods of increased anxiety. This framing could explain why state anxiety has a positive effect on convenience-seeking spending while simultaneously reducing functional spending.

Another explanation for this pattern could be cognitive narrowing, which occurs under anxiety (Kirsch & Windmann, 2009). Anxiety reduces the ability to process complex or long-term considerations, causing individuals to prioritize immediate solutions over future planning. This could explain why functional spending, which often involves practical and goal-oriented decisions, is negatively associated with state anxiety.

In line with Simon's (1955) theory of bounded rationality, which suggests that cognitive limitations make individuals choose a satisfactory outcome rather than an optimal solution, the

findings indicate that anxiety potentially restricts individuals' ability to engage in fully rational decision-making, therefore engaging in immediate emotional relief and comfort-seeking spending behavior rather than long-term financial planning.

The demographic results also provide insights into how anxiety-driven spending behaviors vary across groups. Gender differences revealed that male students were less likely to engage in convenience-seeking spending, which could be influenced by societal norms and aligns with past research showing that men and women respond differently to anxiety and risk (Xie et al., 2017; Zhang et al., 2017).

The results of this study also supported H2, demonstrating that financial anxiety is a predictor of convenience-seeking spending. Financial anxiety, as described by Shapiro and Burchell (2012), refers to individuals' stress and worry about managing their finances, which directly impacts their decision-making processes. The findings of this study align with this conceptualization, as financial anxiety was associated with increased short-term, comfort-oriented spending behaviors and decreased functional spending. Similar to H1, this dual effect highlights how financial anxiety narrows individuals' focus, pushing them toward immediate emotional relief at the expense of long-term financial planning.

The affect heuristic (Slovic et al., 2007) provides a useful lens for interpreting these findings. Financial anxiety likely amplified participants' reliance on affective cues, such as the emotional appeal of convenience-oriented purchases, while simultaneously undermining their ability to engage in deliberative, effortful planning required for functional spending. This heuristic-driven decision-making process simplifies complex financial choices, making it easier for individuals to prioritize immediate comfort over long-term utility.

In the context of consumer financial decision-making, these findings suggest that financial anxiety creates an environment where short-term coping mechanisms take over rational, goal-oriented financial behaviors. This is particularly concerning for university students, who may already face limited financial resources and heightened stress due to their transitional life stage (Roberts et al., 2000). The observed decrease in functional spending among students with high financial anxiety underscores the potential long-term consequences of anxiety-driven financial behaviors, as weakened planning and goal-setting may negatively affect their financial stability.

The exploratory mediation analyses provide valuable insights into the relationship between anxiety and spending behaviors. The original mediation model showed that financial anxiety mediates the relationship between state anxiety and convenience-seeking spending, with a significant indirect effect. This mediating effect aligns with Shapiro and Burchell's (2012)

findings that financial anxiety, distinct from general anxiety, directly influences financial behaviors. The results also reflect the affect heuristic (Slovic et al., 2007), where emotional states like state anxiety amplify domain-specific concerns, such as financial anxiety, driving behaviors like comfort-seeking spending.

The reversed exploratory mediation model, testing whether financial anxiety leads to state anxiety and subsequently to spending, was not supported. Studies on compensatory consumption (Zheng & Peng, 2014) and emotion-focused coping (Folkman, 2020) could provide a framework for understanding these findings, emphasizing that comfort-seeking spending often serves as a coping mechanism to manage emotional discomfort. These results align with Achar et al. (2016) and Maner et al. (2007), who highlight how anxiety shapes risk perception and decision-making, pushing individuals toward immediate relief strategies.

In summary, the analyses highlight the distinct yet interconnected roles of state and financial anxiety in influencing comfort-seeking spending. These findings contribute to the understanding of consumer financial decision-making by linking emotional states to spending patterns through established theoretical frameworks like the affect heuristic and coping mechanisms.

## **5.1 Theoretical and practical contribution**

This study contributes to the growing body of literature on anxiety and consumer financial decision-making by providing a deeper understanding of how different types of anxiety influence spending behaviors. By distinguishing between state and financial anxiety, the findings emphasize the role of context-specific emotional states in shaping financial decisions. This dual model advances emotion-driven decision-making theories, such as the affect regulation framework, by showing how general emotional states (state anxiety) influence behavior through domain-specific mechanisms (financial anxiety). Additionally, differentiating between convenience-seeking and functional spending provides a more nuanced understanding of anxiety's impact. Identifying convenience-seeking spending as a short-term coping mechanism and functional spending as a long-term planning behavior offers a fresh perspective on the behavioral outcomes of anxiety.

The practical implications of these findings are particularly relevant for universities, policymakers, and financial institutions. The influence of financial anxiety on spending behaviors highlights the need for targeted interventions to reduce financial stress among

university students. For instance, universities could offer counselling or support services specifically aimed at reducing financial anxiety.

## **5.2 Limitations and future research**

While this study provides valuable insights into the role of anxiety in shaping financial decision-making and consumer spending behaviors among university students, it is important to acknowledge its limitations and highlighting its opportunities for further research.

One consideration is the relatively small sample size. While the sample was sufficient for the statistical analyses performed, a larger and more diverse group of participants would have enhanced the generalizability of the findings. Additionally, the participants were primarily recruited from my personal network, including friends and colleagues, which may have introduced a level of homogeneity in the sample. Participants might share similar socioeconomic or educational backgrounds, which could influence their financial behaviors in ways that may not fully reflect a broader population. Thus, future research should address the issue of sample size and diversity by increasing the sample size and recruiting participants from a broader range of socioeconomic, cultural, and educational backgrounds to enhance the generalizability of the findings. A more representative sample could show variations in consumer financial decision-making behaviors across different groups, providing a better understanding of the role of anxiety in financial behaviors.

Another limitation is the exclusive focus on university students as the target population. University students represent a specific demographic with unique challenges, such as academic pressure and transitional life stages, which may increase the impact of anxiety on their financial behaviors. Therefore, although this focus provides interesting insights into a group with growing financial independence, the findings may not translate to the general population. Therefore, future research should include participants from a variety of age groups and life stages, such as working professionals, retirees, or teenagers.

The study also controlled for variables such as nationality, where differences were observed, particularly between Anglophone and other European participants. While these differences were captured, a more detailed exploration of cultural values shaping financial decision-making behaviors would offer further depth. One specific cultural factor that would be interesting to explore is uncertainty avoidance (UAI), one of Hofstede's (1980, 1984) cultural dimensions. UAI measures how much people in a culture prefer to avoid uncertainty and ambiguity (Hofstede, 2011). In high-UAI cultures, people tend to be more cautious, risk-averse, and prefer

structured, predictable behaviors (Hofstede, 2011). Comfort-seeking spending, which is often impulsive and short-term, might feel too risky or irresponsible in these cultures because it introduces uncertainty and does not align with their preference for control and stability. On the other hand, in low-UAI cultures, people are more comfortable with ambiguity and might view comfort-seeking spending as an acceptable way to cope with anxiety, without worrying as much about the long-term impact (Hofstede, 2011). In my study, a quick analysis showed that university students from high-UAI cultures engage in less comfort-seeking spending than those from low-UAI cultures, and the difference was statistically significant. More detail regarding this analysis can be found in Appendix 6. This underlines the importance of further research to assess if UAI might moderate the relationship between anxiety and spending behaviors. For example, a question to address could be if being from a high-UAI culture weakens the effect of anxiety on comfort-seeking spending. If so, this would suggest that cultural norms around avoiding uncertainty play a big role in shaping how anxiety affects financial decisions. Unfortunately, I could not investigate this in detail due to space constraints and the fact that my sample did not include enough students from diverse cultural backgrounds to properly test these relationships. Within my sample, 62 participants were from low uncertainty avoidance countries, making this group smaller than the 98 participants from high uncertainty avoidance countries. Future research could address these limitations by collecting data from a more culturally diverse group and testing whether UAI moderates the relationship between anxiety and spending behaviors. This could give a clearer picture of how cultural differences influence financial decision-making and help understand these behaviors in a broader context.

Further, while the self-designed financial decision-making scenarios and behavior inventor items were carefully constructed to align with the study's objectives, they have not yet been validated. The reliability was high, and while the items directly addressed comfort-seeking behaviors, it is likely that such behaviors are not significantly influenced by social desirability - or at least no more than functional behaviors. Therefore, it is important to develop standardized instruments that are more thoroughly validated for future research.

Additionally, the exclusive focus on anxiety as the primary emotional driver of financial decision-making composes another limitation. While this approach allowed for a detailed examination of anxiety's role, it overlooks other emotions, such as sadness, excitement, or guilt, which may also influence spending behaviors. The exploration of multiple emotions and their influence on consumer financial decision-making could offer a more comprehensive understanding of the emotional drivers of spending and saving behaviors.

A key limitation of the exploratory analysis is the inability to establish causality in the observed relationships between state anxiety, financial anxiety, and convenience-seeking spending. While the mediation analyses suggest a potential pathway, the cross-sectional nature of the data prevents definitive conclusions about cause-and-effect relationships. Initially, this study intended to directly manipulate state anxiety to test its causal impact on financial anxiety and spending behaviors. However, this approach was not pursued due to ethical concerns about inducing anxiety in a sample already likely to experience elevated stress levels. Future research could address this limitation through carefully designed experiments that ethically induce state anxiety, to observe its effects on financial anxiety and spending behaviors. Such methods would provide more robust evidence for the mechanisms underlying anxiety-driven financial behaviors.

Finally, while this study assessed the direct relationship between anxiety and convenience-seeking spending, it did not explore how anxiety might shift preferences between comfort-seeking and functional spending behaviors. Future research could analyze this trade-off directly by investigating the relative preference for one type of spending over the other, providing additional insights into the mechanisms underlying anxiety-driven financial behaviors.

## **6. Conclusion**

The relationship between anxiety and consumer financial decision-making offers valuable insights into how emotional states shape spending behaviors. This thesis contributes to the important field of financial decision-making by examining the distinct roles of state and financial anxiety among university students. The findings demonstrate that state anxiety increases convenience-seeking spending while reducing functional spending, with financial anxiety showing an even stronger influence. Additionally, the exploratory analyses suggest that financial anxiety may mediate the relationship between state anxiety and convenience-seeking spending. This highlights financial anxiety as a potential mechanism linking emotional states to spending behaviors, though further research is needed to confirm causality. These results provide a foundation for future research and practical interventions aimed at mitigating anxiety-driven financial behaviors and promoting more informed decision-making.

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## 8. Appendices

### Appendix 1: Population statistics

**Table 1**

*Descriptive Statistics for Age*

	N	Minimum	Maximum	M	SD
Age	160	18	59	23,93	3,737
Valid N (listwise)	160				

**Table 2**

*Frequency Table for Gender*

	N	%
Female	93	58,1%
Male	67	41,9%

**Table 3**

*Frequency Table for Nationality*

	N	%
Australia	20	12,5%
Austria	40	25,0%
Belgium	1	0,6%
Bulgaria	1	0,6%
Canada	3	1,9%
Finland	5	3,1%
Germany	34	21,3%
Israel	1	0,6%
Italy	1	0,6%
Norway	6	3,8%
Portugal	19	11,9%
Romania	1	0,6%
Russian Federation	1	0,6%
Switzerland	10	6,3%
Ukraine	1	0,6%
United States of America	16	10,0%

**Table 4**

*Frequency Table for University Enrollment Status*

	N	%
Bachelor's degree 1st year	8	5,0%
Bachelor's degree 2nd year	17	10,6%
Bachelor's degree 3rd year	23	14,4%
Master's degree 1st year	30	18,8%
Master's degree 2nd year	64	40,0%
Other	18	11,3%

## **Appendix 2: Survey**

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### Start of Block: Informed Consent

Q1 Welcome and thank you for participating in my research for my master thesis at Católica Lisbon School of Business and Economics. This study aims to analyze how emotions are related to financial decision-making. The survey will take approximately 5 minutes to complete. Your responses will remain completely anonymous and will be used solely for academic purposes. There are no right or wrong answers, so please be as honest and candid as possible. If you have any questions or feedback regarding the survey, feel free to reach out to me at s-inehrenbrandtner@ucp.pt. Thank you for your time and participation! By proceeding with this survey, I consent to participate in this study. I understand that I may withdraw from the study at any time, and all data collected will remain confidential and anonymous.

I agree to participate.

---

### End of Block: Informed Consent

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### Start of Block: Demographics

Q2 What gender do you identify with?

- Female
- Male
- Other \_\_\_\_\_

---

Q3 What is your country of origin?

▼ Afghanistan (1) ... Zimbabwe (1357)

---

Q4 What is your age? \_\_\_\_\_

---

Q5 Are you currently enrolled as a university student?

- Yes
- No

---

Q6 Please indicate your current university enrollment status:

- Bachelor's degree 1st year
- Bachelor's degree 2nd year
- Bachelor's degree 3rd year
- Master's degree 1st year
- Master's degree 2nd year
- Other \_\_\_\_\_

End of Block: Demographics

---

Start of Block: State-Trait-Anxiety-Inventory

Q7 Now you will be asked to rate how you are feeling right now using short statements. Please answer each statement honestly, based on how you feel at this very moment. There are no right or wrong answers, and your responses will remain anonymous.

	Not at all	Somewhat	Moderately so	Very much so
I feel calm.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am tense.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel upset.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am relaxed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel content.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am worried.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q8 Now please rate how you generally feel (not only in this moment) using short statements. Please answer each statement honestly, based on how you feel. There are no right or wrong answers, and your responses will remain anonymous.

	Almost never	Sometimes	Often	Almost always
I tire quickly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I worry too much over something that really doesn't matter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Some unimportant thought runs through my mind and bothers me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: State-Trait-Anxiety-Inventory

Start of Block: Financial anxiety scale

Q9 In this section, you will be asked a series of questions about how you feel regarding your financial situation. Please read each statement carefully and indicate how often you feel this way by selecting the option that best describes your experience.

	Never	Almost never	Occasionally	Sometimes	Frequently	Usually	Always
I feel anxious about my financial situation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have difficulty sleeping because of my financial situation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have difficulty concentrating on my school/or work because of my financial situation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am irritable because of my financial situation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have difficulty controlling worrying about my financial situation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Please select "never" to show that you paid attention.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My muscles feel tense because of worries about my financial situation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel fatigued because I worry about my financial situation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Financial anxiety scale

---

Start of Block: Behavioral Inventory

In this section, you will be asked to indicate how likely you are to engage in certain behaviors when you are feeling stressed using the scale provided.

Q10 When you are under stress how likely are you to engage in the following behavior?

	Very unlikely	Unlikely	Neutral	Likely	Very likely
Buying comfort food (e.g. pizza, ice cream).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Purchasing a comfort clothing item (e.g. warm hoody).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Purchasing self-care items (e.g. skincare products, candle)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taking a car-sharing service (e.g. Uber, Taxi) to avoid additional stress.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Buying a specialty coffee, juice, or other indulgent drink.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Purchasing healthy food.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Buying functional clothing (e.g. formalwear, workout clothes).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taking public transportation or walking.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Signing up for an expensive workout class. (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Buying a water to make sure you are well-hydrated.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Behavioral Inventory

---

Start of Block: Financial decision-making scenarios

In the following section, you will be presented with six scenarios related to financial decision-making in response to stressful or anxious situations. Please read each scenario carefully and answer based on how likely you would be to act in that situation. There are no right or wrong answers – your honest responses are greatly appreciated.

Q11 After a week filled with multiple deadlines and late nights, you feel overwhelmed and anxious about keeping up. You consider buying a new, cozy piece of clothing that you have wanted for a while, hoping it will bring comfort, though you know it's not essential. How likely are you to purchase the new piece of clothing to help yourself feel better?

- Very unlikely
- Unlikely
- Neutral
- Likely
- Very likely

Q12 You have had a long and stressful day of classes, assignments, and still have to study more when you get home - you feel drained. On your way home, you see a coffee shop offering a seasonal drink that you enjoy, even though it costs more than what you would normally spend on a drink. How likely are you to stop and buy the drink to lift your spirits and feel motivated for your study session?

- Very unlikely
- Unlikely
- Neutral
- Likely
- Very likely

Q13 You have been preparing for the upcoming exam week that is starting tomorrow, feeling tense and anxious. You consider ordering takeout to save time, even though it's pricier than cooking yourself and eating what you have at home. How likely are you to treat yourself to ordering takeout?

- Very unlikely
- Unlikely
- Neutral
- Likely
- Very likely

Q14 Your thesis defense presentation is coming up, and you will be presenting in front of 30 people. Feeling nervous and wanting to make a good impression, you consider buying a new, high-quality outfit to look more professional and feel confident, even though it is not something you would normally spend so much money on. How likely are you to make this purchase?

- Very unlikely
- Unlikely
- Neutral
- Likely
- Very likely

Q15 With exams approaching, you're feeling tense and overwhelmed. You consider getting a massage to help relax, even though it's a splurge and not in your regular budget. You believe it might help reduce your anxiety for the upcoming exams. How likely are you to get the massage to ease your stress?

- Very unlikely
- Unlikely
- Neutral
- Likely
- Very likely

Q16 You have a major exam tomorrow morning and are feeling anxious about covering all the material in time. During your late-night study session, you realize there is a study guide or app you could purchase that claims to simplify the topics, even though it's expensive and not guaranteed to help. How likely are you to buy the study guide or app to feel more prepared?

- Very unlikely
- Unlikely
- Neutral
- Likely
- Very likely

End of Block: FDM Scenario 5

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Start of Block: Ending

Thank you for participating in this survey! Your input is valuable and will greatly contribute to my research.

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If you have any additional comments or feedback, please share them in the box below.

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End of Block: Ending

---

### Appendix 3: Data preparation and scale assessment

**Table 5**

*Reliability Statistics for State Anxiety*

Cronbach's Alpha	N of Items
,856	6

**Table 6**

*Item-Total Statistics for State Anxiety*

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Cronbach's Alpha if Item Deleted
I feel calm.	10,93	11,554	,767	,807
I am tense.	11,09	12,005	,681	,825
I feel upset.	11,64	13,350	,556	,847
I am relaxed.	10,83	12,053	,702	,821
I feel content.	11,04	14,105	,485	,858
I am worried.	10,97	11,980	,671	,827

**Table 7**

*Reliability Statistics for Trait Anxiety*

Cronbach's Alpha	N of Items
,756	3

**Table 8**

*Item-Total Statistics for Trait Anxiety*

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Cronbach's Alpha if Item Deleted
I tire quickly.	5,19	2,619	,535	,737
I worry too much over something that really doesn't matter.	5,00	2,667	,627	,629
Some unimportant thought runs through my mind and bothers me.	5,06	2,688	,601	,658

**Table 9***Reliability Statistics for Financial Anxiety Scale*

Cronbach's Alpha	N of Items
,955	7

**Table 10***Item-Total Statistics for Financial Anxiety Scale*

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Cronbach's Alpha if Item Deleted
I feel anxious about my financial situation.	16,68	78,070	,868	,946
I have difficulty sleeping because of my financial situation.	17,57	81,266	,864	,947
I have difficulty concentrating on my school/or work because of my financial situation.	17,48	81,685	,842	,949
I am irritable because of my financial situation.	17,03	82,043	,802	,952
I have difficulty controlling worrying about my financial situation.	16,91	76,785	,867	,947
My muscles feel tense because of worries about my financial situation.	17,62	83,998	,788	,953
I feel fatigued because I worry about my financial situation.	17,13	77,171	,896	,944

**Table 11***Reliability Statistics for Financial decision-making scenarios*

Cronbach's Alpha	N of Items
,742	6

**Table 12***Item-Total Statistics for Financial decision-making scenarios*

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Cronbach's Alpha if Item Deleted
Purchasing a new piece of clothing to help yourself feel better.	17,22	16,767	,643	,653
Buying a comfort drink to feel motivated for a late-night study session.	16,72	19,295	,481	,705
Ordering takeout instead of cooking at home.	16,47	22,037	,318	,743
Buying a new, high-quality outfit to look more professional and feel confident for a presentation.	16,86	18,853	,498	,700
Getting a massage to reduce anxiety for upcoming exams.	17,97	19,200	,422	,722
Purchasing a study guide or app to feel more prepared for an upcoming exam.	17,69	17,688	,510	,697

**Table 13***Reliability Statistics for Comfort-seeking Spending Behavior Inventory*

Cronbach's Alpha	N of Items
,763	5

**Table 14***Item-Total Statistics for Comfort-seeking Spending Behavior Inventory*

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Cronbach's Alpha if Item Deleted
Buying comfort food (e.g. pizza, ice cream).	13,200	17,960	,435	,751
Purchasing a comfort clothing item (e.g. warm hoody).	14,106	14,158	,662	,669
Purchasing self-care items (e.g. skincare products, candle)	14,013	15,610	,539	,717
Taking a car-sharing service (e.g. Uber, Taxi) to avoid additional stress.	14,050	14,803	,517	,729
Buying a specialty coffee, juice, or other indulgent drink.	13,556	16,575	,520	,725

**Table 15***Reliability Statistics for Functional Spending Behavior Inventory*

Cronbach's Alpha	N of Items
,712	5

**Table 16***Item-Total Statistics for Functional Spending Behavior Inventory*

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Purchasing healthy food.	12,04	13,194	,508	,652
Buying functional clothing (e.g. formalwear, workout clothes).	12,52	12,151	,523	,642
Taking public transportation or walking.	11,73	14,802	,264	,739
Signing up for an expensive workout class.	12,77	12,377	,483	,659
Buying a water to make sure you are well-hydrated.	11,96	11,433	,585	,613

**Table 17***Correlations between Similarity between Comfort-seeking spending and functional spending behavior inventory, and financial decision-making scenarios*

	Comfort-seeking spending behavior inventory	Functional spending behavior inventory	Financial decision-making scenarios
Comfort-seeeking spending behavior inventory	1	-,555**	,775**
Functional spending behavior inventory	-,555**	1	-,525**
Financial decision-making scenarios	,775**	-,525**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## Appendix 4: Hypothesis testing

### Regression Analysis for H1

**Table 18**

*Model Summary for State Anxiety and Convenience-seeking spending*

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	SE of the Estimate
1	,437 <sup>a</sup>	,191	,170	,779

a. Predictors: (Constant), Age, Gender, State anxiety, Nationality

**Table 19**

*ANOVA for State Anxiety and Convenience-seeking spending*

Model	Sum of Squares	df	Mean Square	F	Sig.
	22,200	4	5,550	9,138	<,001 <sup>b</sup>
1	94,145	155	,607		
	116,345	159			

a. Dependent Variable: Convenience-seeking spending

b. Predictors: (Constant), Age, Gender, State anxiety, Nationality

**Table 20**

*Coefficients for State Anxiety and Convenience-seeking spending Model*

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	SE	Beta		
	(Constant)	1,868	,640		2,920	,004
	State anxiety	,096	,034	,206	2,838	,005
1	Gender	-,495	,128	-,286	-3,874	<,001
	Nationality	,629	,149	,317	4,222	<,001
	Age	,011	,017	,050	,679	,498

a. Dependent Variable: Convenience-seeking spending

**Table 21***Model Summary State Anxiety and Functional spending*

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	SE of the Estimate
1	,418 <sup>a</sup>	,175	,153	,79468

a. Predictors: (Constant), Age, Gender, State Anxiety, Nationality

**Table 22***ANOVA for State Anxiety and Functional spending Model*

Model	Sum of Squares	df	Mean Square	F	Sig.
	20,694	4	5,173	8,192	<,001 <sup>b</sup>
1	97,886	155	,632		
	118,580	159			

a. Dependent Variable: Functional Spending

b. Predictors: (Constant), Age, Gender, State Anxiety, Nationality

**Table 23***Coefficients for State Anxiety and Functional spending Model*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	SE	Beta		
(Constant)	4,709	,652		7,218	<,001
State Anxiety	-,120	,034	-,254	-3,471	<,001
1 Gender	,126	,130	,072	,964	,337
Nationality	-,641	,152	-,320	-4,218	<,001
Age	,001	,017	,005	,070	,944

a. Dependent Variable: Functional Spending

**Table 24***Model Summary for State Anxiety and Convenience-seeking spending with Trait Anxiety*

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	SE of the Estimate	Change Statistics				
					R <sup>2</sup> Change	F Change	df1	df2	Sig. F Change
1	,496 <sup>a</sup>	,246	,222	,755	,246	10,053	5	154	<,001

a. Predictors: (Constant), Age, Trait Anxiety, State Anxiety, Nationality, Gender

**Table 25***ANOVA for State Anxiety and Convenience-seeking spending Model with Trait Anxiety*

Model	Sum of Squares	df	Mean Square	F	Sig.
	28,630	5	5,726	10,053	<,001 <sup>b</sup>
1	87,715	154	,570		
	116,345	159			

a. Dependent Variable: Convenience-seeking spending

b. Predictors: (Constant), Age, Trait Anxiety, State Anxiety, Nationality, Gender

**Table 26***Coefficients for State Anxiety and Convenience-seeking spending Model with Trait Anxiety*

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	SE	Beta			
(Constant)	1,370	,637			2,151	,033
State Anxiety	,459	,199	,164		2,305	,022
1 Trait Anxiety	,561	,167	,253		3,360	<,001
Gender	-,349	,131	-,202		-2,662	,009
Nationality	,613	,144	,308		4,243	<,001
Age	,011	,016	,050		,699	,486

a. Dependent Variable: Convenience-seeking spending

**Regression Analysis for H2****Table 27***Model Summary for Financial Anxiety and Convenience-seeking spending*

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	SE of the Estimate
1	,525 <sup>a</sup>	,276	,257	,737

a. Predictors: (Constant), Age, Financial Anxiety, Gender, Nationality

**Table 28***ANOVA for Financial Anxiety and Convenience-seeking spending Model*

Model	Sum of Squares	df	Mean Square	F	Sig.
	32,127	4	8,032	14,782	<,001 <sup>b</sup>
1	84,218	155	,543		
	116,345	159			

a. Dependent Variable: Convenience-seeking spending

b. Predictors: (Constant), Age, Financial Anxiety, Gender, Nationality

**Table 29***Coefficients for Financial Anxiety and Convenience-seeking spending Model*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	SE	Beta		
(Constant)	2,732	,404		6,767	<,001
1 Financial Anxiety	,181	,035	,368	5,222	<,001
Gender	-,476	,121	-,275	-3,937	<,001
Nationality	,474	,145	,239	3,274	,001
Age	,008	,016	,034	,482	,630

a. Dependent Variable: Convenience-seeking spending

**Table 30***Model Summary for Financial Anxiety and Functional spending*

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	SE of the Estimate
1	,394 <sup>a</sup>	,155	,133	,80392

a. Predictors: (Constant), Age, Financial Anxiety, Gender, Nationality

**Table 31***ANOVA for Financial Anxiety and Functional spending Model*

Model	Sum of Squares	df	Mean Square	F	Sig.
	18,406	4	4,601	7,120	<,001 <sup>b</sup>
1	100,174	155	,646		
	118,580	159			

a. Dependent Variable: Functional spending

b. Predictors: (Constant), Age, Financial Anxiety, Gender, Nationality

**Table 32***Coefficients for Financial Anxiety and Functional spending Model*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	SE	Beta		
(Constant)	3,293	,440		7,479	<,001
1 Financial Anxiety	-,109	,038	-,218	-2,869	,005
Gender	,111	,132	,064	,845	,400
Nationality	-,565	,158	-,282	-3,577	<,001
Age	,005	,017	,020	,265	,792

a. Dependent Variable: Functional spending

**Table 33***Model Summary for Financial Anxiety and Convenience-seeking spending with Trait Anxiety*

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	SE of the		Change Statistics			
				Estimate	R <sup>2</sup> Change	F Change	df1	df2	Sig. F Change
1	,536 <sup>a</sup>	,288	,265	,734	,288	12,438	5	154	<,001

a. Predictors: (Constant), Nationality, Trait Anxiety, Age, Gender, Financial Anxiety

**Table 34***ANOVA for Financial Anxiety and Convenience-seeking spending with Trait Anxiety Model*

Model	Sum of Squares	df	Mean Square	F	Sig.
1	33,468	5	6,694	12,438	<,001 <sup>b</sup>
	82,877	154	,538		
	116,345	159			

a. Dependent Variable: Convenience-seeking spending

b. Predictors: (Constant), Nationality, Trait Anxiety, Age, Gender, Financial Anxiety

**Table 35***Coefficients for Financial Anxiety and Convenience-seeking spending with Trait Anxiety Model*

Model		Unstandardized		Standardized		Sig.
		B	SE	Beta	t	
1	(Constant)	2,420	,448		5,402	<,001
	Financial Anxiety	,151	,040	,306	3,823	<,001
	Age	,008	,016	,036	,515	,607
	Trait Anxiety	,289	,183	,130	1,578	,117
	Gender	-,404	,129	-,234	-3,137	,002
	Nationality	,493	,145	,248	3,410	<,001

a. Dependent Variable: Convenience-seeking spending

## Appendix 5: Exploratory Analysis

### Mediation Analysis of Financial Anxiety on Comfort-Seeking-Spending and State Anxiety

Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Version 4.2 \*\*\*\*\*

Written by Andrew F. Hayes, Ph.D. [www.afhayes.com](http://www.afhayes.com)  
Documentation available in Hayes (2022). [www.guilford.com/p/hayes3](http://www.guilford.com/p/hayes3)

\*\*\*\*\*

Model : 4  
Y : CS\_av  
X : State\_av  
M : FAS\_av

Covariates:  
Trait\_av Age Anglo\_D Male\_D

Sample  
Size: 160

\*\*\*\*\*

OUTCOME VARIABLE:  
FAS\_av

Model Summary

R	R-sq	MSE	F	df1	df2	p
,5562	,3093	2,1447	13,7954	5,0000	154,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	-2,4237	1,2361	-1,9608	,0517	-4,8656	,0182
State_av	,9923	,3865	2,5674	,0112	,2288	1,7558
Trait_av	2,1014	,3243	6,4802	,0000	1,4608	2,7420
Age	,0152	,0316	,4809	,6312	-,0473	,0777
Anglo_D	,8708	,2801	3,1086	,0022	,3174	1,4242
Male_D	,4534	,2544	1,7821	,0767	-,0492	,9559

\*\*\*\*\*

OUTCOME VARIABLE:  
CS\_av

Model Summary	R	R-sq	MSE	F	df1	df2	p
	,5477	,3000	,5323	10,9268	6,0000	153,0000	,0000

Model	coeff	se	t	p	LLCI	ULCI
constant	1,7044	,6235	2,7338	,0070	,4727	2,9361
State_av	,3225	,1966	1,6400	,1030	-,0660	,7109
FAS_av	,1378	,0401	3,4319	,0008	,0585	,2171
Trait_av	,2720	,1823	1,4921	,1377	-,0881	,6320
Age	,0093	,0158	,5891	,5566	-,0219	,0404
Anglo_D	,4926	,1439	3,4238	,0008	,2084	,7768
Male_D	-,4114	,1280	-3,2132	,0016	-,6644	-,1585

\*\*\*\*\* DIRECT AND INDIRECT EFFECTS OF X ON Y \*\*\*\*\*

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI
,3225	,1966	1,6400	,1030	-,0660	,7109

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
FAS_av	,1367	,0678	,0295	,2965

\*\*\*\*\* ANALYSIS NOTES AND ERRORS \*\*\*\*\*

Level of confidence for all confidence intervals in output:  
95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:  
5000

----- END MATRIX -----

## Mediation Analysis of State Anxiety on Comfort-Seeking-Spending and Financial Anxiety

Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Version 4.2 \*\*\*\*\*

Written by Andrew F. Hayes, Ph.D. [www.afhayes.com](http://www.afhayes.com)  
Documentation available in Hayes (2022). [www.guilford.com/p/hayes3](http://www.guilford.com/p/hayes3)

\*\*\*\*\*

Model : 4  
Y : CS\_av  
X : FAS\_av  
M : State\_av

Covariates:  
 Trait\_av Age Anglo\_D Male\_D

Sample  
 Size: 160

\*\*\*\*\*

OUTCOME VARIABLE:  
 State\_av

Model Summary

	R	R-sq	MSE	F	df1	df2	p
Model	,2756	,0759	,0894	2,5311	5,0000	154,0000	,0312
	coeff	se	t	p	LLCI	ULCI	
constant	2,2183	,1826	12,1504	,0000	1,8576	2,5789	
FAS_av	,0414	,0161	2,5674	,0112	,0095	,0732	
Trait_av	,0522	,0746	,7005	,4847	-,0951	,1996	
Age	-,0035	,0065	-,5415	,5889	-,0162	,0093	
Anglo_D	,0021	,0590	,0361	,9713	-,1144	,1186	
Male_D	,0242	,0524	,4610	,6454	-,0794	,1278	

\*\*\*\*\*

OUTCOME VARIABLE:  
 CS\_av

Model Summary

	R	R-sq	MSE	F	df1	df2	p
Model	,5477	,3000	,5323	10,9268	6,0000	153,0000	,0000
	coeff	se	t	p	LLCI	ULCI	
constant	1,7044	,6235	2,7338	,0070	,4727	2,9361	
FAS_av	,1378	,0401	3,4319	,0008	,0585	,2171	
State_av	,3225	,1966	1,6400	,1030	-,0660	,7109	
Trait_av	,2720	,1823	1,4921	,1377	-,0881	,6320	
Age	,0093	,0158	,5891	,5566	-,0219	,0404	
Anglo_D	,4926	,1439	3,4238	,0008	,2084	,7768	
Male_D	-,4114	,1280	-3,2132	,0016	-,6644	-,1585	

\*\*\*\*\* DIRECT AND INDIRECT EFFECTS OF X ON Y \*\*\*\*\*

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI
,1378	,0401	3,4319	,0008	,0585	,2171

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
State_av	,0133	,0106	-,0039	,0374

\*\*\*\*\* ANALYSIS NOTES AND ERRORS \*\*\*\*\*

Level of confidence for all confidence intervals in output:  
95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:  
5000

----- END MATRIX -----

## Appendix 6: Analysis of Cultural Differences in Comfort-Seeking Spending

**Table 36**

*Group Statistics*

	UA_Group	N	Mean	SD	SE Mean
Convenience-seeking spending	Low UAI	62	3,82	,793	,101
	High UAI	98	3,20	,810	,082

**Table 37**

*Independent Samples Test*

	Levene's Test		t-test							
	F	Sig.	t	df	Significance		Mean Difference	SE Difference	95% Confidence Interval of the Difference	
					One-Sided p	Two-Sided p			Lower	Upper
Convenience-seeking spending	,795	,374	4,712	158	<,001	<,001	,614	,130	,357	,872
			4,735	132,018	<,001	<,001	,614	,130	,358	,871