

Relationship Between Intolerance Of Uncertainty, Self-Determination And Decision Making Among Managers



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# **RELATIONSHIP BETWEEN INTOLERANCE OF UNCERTAINTY, DECISION MAKING AND SELF- DETERMINATION AMONG MANAGERS**



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A Research Thesis submitted to the  
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## **Certificate of Approval**

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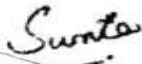
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This is declared to be a unique part of our work, unless otherwise indicated by the content and references of the text. This work has not been submitted to a university or higher education group of another level or degree, nor has it been submitted to obtain a degree in that university or other university or institution.

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January, 2024

## **DEDICATION**

*This thesis is tribute to Imran Ahmed Khan Niazi.*

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## **Abstract**

This study delves into the intricate dynamics between intolerance of uncertainty, managerial decision-making, and organizational outcomes. Drawing from managers across public and private organizations in Rawalpindi and Islamabad, statistical analysis through SPSS unveils significant correlations. By employing a quantitative methodology and self-reported measures, the study sheds light on the complex relationship between these variables. However, cultural considerations caution against broad generalizations beyond the studied context. Spearman's correlation is used to establish relationships, considering the non-normal distribution of the data. Insights gained from this research inform strategies to enhance decision-making processes and organizational effectiveness in uncertain environments.

**Key words:** intolerance of uncertainty, decision making, self-determination, autonomy, genders.

### Introduction

People make countless decisions every day. The majority of the choices are easy to understand, but some might be hard or complicated (Kahneman, 2011). The more difficult and complicated choices we make can have an effect on time, money, feelings, and relationships (Ariely, 2008). In order to make the more difficult decisions, you probably need to get over your anxiety about making decisions in uncertain circumstances (Gladwell, 2005). Decision making is the process by which an individual, group, or organization decides what to do next in light of a set of goals and limited resources. Determining the issue, compiling data, making inferences, and applying what has been learned are frequently the steps in this process (Tversky & Kahneman, 1974).

### Decision making

Being able to make decisions with confidence means being both accountable for your actions (Smith, 2020) and loyal to who you are (Jones, 2019). Confident decisionmaking begins with the conventional decision-making procedures (Brown, 2021).

Choosing what to do (Johnson, 2018), deciding which options are available (Davis, 2020), evaluating the evidence (Miller, 2019), choosing from a variety of options (Anderson, 2022), moving forward (Roberts, 2017), and changing your mind (Wilson, 2021) are all common procedures.

Theoretically and practically, the decision-making process does not exist in a vacuum. This procedure may incorporate interests and values as well as a variety of skills and abilities, such as problem-solving, goal-setting, or decision-making abilities (Smith, 2015). Contexts and the kinds of decisions being made also have an impact on the decision-making process (Jones, 2018). In addition, it enables us to comprehend how decision-making influences broader life outcomes like increased autonomy and self-determination (Brown, 2020). In a similar vein, intolerance of uncertainty is a personality trait characterized by skewed perceptions of uncertainty and its effects. According to Buhr and Dugas (2002), people who have an intolerance of uncertainty are more likely to react negatively to situations or potential situations that they perceive to be uncertain.

A decision is a conscious choice made from among a set of desirable possibilities to attain a result (Janis, 1989). Managers, in order to achieve organizational goals (Robbins & Coulter, 2016). These choices are further classified. As far as the nature of programmed judgments is routine and repeated (Bazerman, 2020). These choices address typical and often recurring challenges in an organization, such as consumer purchasing behavior (Robbins, 2020), the sanctioning of various sorts of leave to employees, purchase decisions (Robbins, 2020), compensation increments, and so on (Robbins, 2020).

Non-programmed judgments, on the other hand, are uncommon. These are exceptional situations in which there are neither rules nor routine management in place. For instance, problems brought on by a decrease in market share and an increase in competition in the workplace. This category includes the majority of managerial

decisions that were not planned. Personal choices, on the other hand, are merely a component of the organization's routine operations. Compared to other options, these judgments take significantly less time and require very little time. Numerous duties are assigned to subordinates. Building harmony within an organization and determining whether or not the management is appropriate is the fundamental choice (Hughes, 2020).

If a decision is made collectively with the organization's goal in mind, it is called the organization's goal, and if the manager makes a decision that affects his or her personal life they are referred to as decisions made by oneself. The organization's operations may occasionally be affected by these decisions. For instance, an employee's decision to leave the company may have an effect on the business. The authority to make decisions on one's own must be exercised by the individual and cannot be delegated. An individual decision is when a decision is made by a single person. Employees frequently make routine decisions within the framework of the organization's policy (Weiss, 2019).

Strategy choices are choices that arrangement to various approach worries in the association. These are made by top administration and have long ramifications for the association. For example, choices on the area of the industrial facility or how much result. These are strategic decisions. Functional decisions are the entire everyday choices that should be made for the association to appropriately run. These are appropriate for middle and lower-level chiefs (Elliot, 1999).

The estimation of rewards gave to every representative, for instance, is a functional choice made by center or lower-level supervisors. These are such administrative choices made by the association's top, medium, and lower-level administration to finish things alignment and to achieve the organizational objective effectively and efficiently (Tierney, et. al., 1999).

Managers frequently make significant decisions in the organization's favor. Through effective decision-making, processes can be improved and a setting for creative decision-making can be created. While pursuing a choice, we utilize mental cycles that are impacted by predispositions, reason, feelings, and recollections to make thoughts and make moves. The simple act of deciding backs up the idea that people have free will (Lighthall et al., 2011).

We weigh the advantages and disadvantages of our choice before taking action. There are a number of things that can make it hard for someone to make good decisions, like not having enough information or not having enough information, having to meet a deadline, or having limited physical or emotional resources. When faced with a situation they are accustomed to, people frequently make decisions quickly and instinctively based on years of experience determining what works and what doesn't (Jones & Forner, 2020).

People must take the time to consider the potential benefits and risks of a situation they have never encountered before choosing a course of action. They have a greater propensity to make errors and suffer negative consequences. Although making decisions can be challenging, they must be carried out. Accept that panic, anxiety, and low self-confidence frequently accompany decision-making (Ford & Gioia, 2021).

Every organization and its employees rely on decisions as a fundamental competence that can be trusted, so making good decisions is important. The organization is adrift or unaware of changes in market conditions, consumer perceptions, and citizen behavior until effective and efficient decisions are made. Reengineered, linked, contextual, and continuous decision-making has the potential to reduce uncertainty and improve our capacity to clarify previously opaque issues. It becomes a competitive advantage. You have the ultimate advantage if you can handle more uncertainty with calm and skill than others (Woodman and co al., 1993).

Good decision making may lead to a variety of benefits, including higher efficiency, better results, and enhanced confidence. Poor decision making, on the other hand, can result in negative effects such as lost time and resources, as well as lower self-esteem. It is critical to establish our beliefs, determine our goals, and use research and data to make better judgements. It is also critical to recognise the impact of emotions and to differentiate sentiments from facts. Finally, considering real-world instances of influential judgements can give significant insight into the power of decision making. Making decisions is an important aspect of life, and knowing the possible advantages and implications of our choices may help us make better judgements. We may make decisions that lead to great results and help us reach our objectives if we have the correct tools and tactics (Mike Rollings, 2021).

Depending on the level of decision-making, decisions can also be broken down into a number of different groups. The organization's direction is determined by strategic decisions. Tactic decisions have an impact on how tasks are carried out. Every day, employees make operational decisions in order to manage the company. Being an



excellent decision maker necessitates creative decision-making. The process of coming up with novel and creative ideas is creativity. Because of the leveling of associations and the competition among them, people and organizations are limited in their ability to think creatively when making decisions about everything from cutting costs to developing new strategies. Despite the fact that creativity is the first step in the innovation process, please be aware that the two concepts are distinct. Advancement starts with unique ideas, however it additionally requires pragmatic preparation and execution. According to some experts, creative decision-making is the result of a combination of three factors: a person's personality, such as how well they take risks and are open to new experiences; their skills, such as knowledge, imagination, and motivation; and their environment, such as having limited time, having social support, and being physically constrained. (Amabile & al., 2000)

### **Intolerance of uncertainty**

In rapidly shifting and uncertain business environment, decision-making has emerged as a crucial skill for managers of organizations. However, uncertainty frequently makes it more difficult to make decisions, which can make decision-makers feel uneasy or anxious. "Intolerance of uncertainty" refers to the individual's perceived inability to tolerate the unpleasant feeling of uncertainty, and this discomfort is referred to as "intolerance of uncertainty" (Carleton & Asmundson, 2012).

Managers' levels of stress may rise as a result of their intolerance of uncertainty, especially in circumstances where there is uncertainty and no control or influence over the decision-making process. This may have an impact on performance,

decisionmaking, and managers' inability to deal with uncertain circumstances, preventing them from providing employees with the guidance they need. Managers can reduce stress and improve the organization as a whole by studying this relationship and figuring out how to reduce uncertainty and give employees a greater sense of control and involvement (Curt Steinhorst, 2021).

It has been shown that navigation is associated with prejudice of vulnerability and self-assurance. Managers and decision-makers are also influenced by selfdetermination and uncertainty in their decisions because uncertainty causes stress and anxiety. Organizational leaders make decisions in a methodical manner, but because they are also human, they are influenced by emotions and traits like self-determination and aversion to uncertainty. Uncertainty intolerance has an impact on managerial decision-making. In a similar vein, when they are self-motivated and capable of coping with uncertainty, they are better able to make decisions. (Deci, 2005).

Because the psychological impact of any manager, regardless of whether they hold a higher or lower designation, affects the organization's productivity and purpose, making decisions on behalf of the organization necessitates self-control and the capacity to deal with uncertainty. It involves psychological perspective in terms of self-determination and intolerance of uncertainty to identify problems and opportunities, decision making criteria, analyzing the situation, deciding which options to take, and then putting the decisions into action (Gagne, 1971).

It has been demonstrated that uncertainty has a significant impact on the processes of decision-making as well as self-determination—a person's capacity to

make choices and exercise control over their lives. This could lead to beneficial outcomes like increased job satisfaction and well-being. Along these lines, narrow mindedness of vulnerability is a character quality described by slanted view of vulnerability and its belongings. People who are intolerant of uncertainty, on the other hand, are more likely to react negatively by thinking, feeling, and acting in ways that are marked by a degree of perceived uncertainty (Buhr & Dugas, 2002).

According to research, anxiety, worry, and stress are linked to intolerance of uncertainty. Anxiety is defined as an inability to tolerate uncertainty when a person is less comfortable with not knowing what to expect in a particular situation. Anxiety is a result of uncertainty, which in turn causes worry and stress. Our thoughts, feelings, and actions are influenced by our intolerance of uncertainty. Anxiety and panic run through your mind when you can't handle uncertainty. Our thoughts become more negative the more we dwell on potential outcomes. When we imagine the worst in unknowable circumstances, anxiety and worry rise, and negativity feeds on itself. Our feelings are also affected when we struggle to deal with uncertainty anxiety. Our capacity to experience pleasure and other pleasant feelings is muted and overpowered by fear because we are plagued by imagined consequences. Our actions and behaviors are also restricted by our intolerance of uncertainty. Our progress could be halted by our fear of the unknown. Have you ever wanted to stay where you are and keep things the same rather than step outside of your comfort zone and possibly go through something bad? That is uncertainty intolerance at its most severe (Carleton, 2016).

Anxiety and worry are exacerbated by the capacity to tolerate uncertainty. People with a high level of uncertainty intolerance are more likely to experience anxiety

and discomfort when confronted with uncertainty. People who are acutely anxious frequently ask themselves "what if" questions, which negatively affect their lives. Uncertainty makes it difficult to plan for future events. Anxiety brought on by uncertainty can cause bad and unadaptive behaviors like making hasty decisions. Intolerance of uncertainty is a cognitive bias that affects how people perceive, comprehend, and respond to uncertain circumstances. For instance, if you have social anxiety, you may be concerned about how you will appear when someone asks you a question. Fear may lead you to exaggerate the threat, such as "I am going to appear dumb and be embarrassed." People who are afraid of uncertainty are more likely to take steps to control or eliminate it (McEvoy and Mahoney, 2012).

### **Self Determination**

As the term self-determination refers to a person's own ability to manage themselves, to make confident choices, to think on their own. Self-determination is driven by autonomy and intrinsic motivation. If a person has high or low selfdetermination, his\her decisions and the ability to manage intolerance of uncertainty will be affected (Deci, 1971).

Any manager who makes decisions for the team and is self-determined has an impact on the outcomes and implementation. Self-determination is essential to effective leadership. Nothing will ever be achieved without self-determination. Without the perseverance to bring the plans, concepts, and objectives to life, they will be of no use. Effective leaders are typically distinguished from ineffective leaders by characteristics like determination (Latulippe & Klenk, 2020).

Self-determination refers to an individual's perception of autonomy, competence, and relatedness among managers. When managers feel empowered and have a voice in decision making processes, they are more engaged, motivated, and committed to their work. Recognizing the connection between intolerance of uncertainty and self-determination, managers can create organizational structures and decision-making procedures that encourage employee autonomy and involvement, resulting in higher levels of employee engagement and satisfaction (Amabile and al., 1996; 2000)

The self-determination theory fundamental requirements of autonomy, competence, and relatedness provide the best foundation for personal development. In self-determination theory, you can engage in autonomous motivation if you can satisfy all of these desires. You have autonomy when your actions are unimpeded by internal or external constraints. You are doing what you want to do. You are able to direct others. You feel confident. Your sense of social worth is strong. You are not being held back by internal doubts or external pressure. Autonomous motivation drives selfdetermination. In order to achieve something, you need to address each essential need (Northoue,2016).

According to Ryan and Deci's (2000) self-determination theory, autonomous motivation is related to perseverance, adherence, and successful performance, especially during hard activities.

It is also linked to psychological wellness. Self- determination theory is a complicated theory that investigates how inner and exterior motivation influence your actions and

sense of self. It investigates the connection between motivation and the fulfilment of fundamental needs such as autonomy, competence, and relatedness.

The three essential psychological requirements for the job are autonomy, relatedness, and competence. Workplace happiness and employee engagement are primarily driven by these factors. In accordance with the organization's strategic objectives, these essential demands must be met. All employees must be aware of their role in the organization and how they can contribute to cultural development, learning, and personal development initiatives (Catherine & brooks, 2011).

Further discussion is given to the three fundamental aspects of selfdetermination. To start with, as we can find as far as independence, we don't necessarily in every case have the choice to pick our working environment obligations. Workplace autonomy is defined as an organization that allows employees to choose how they want to approach a project or job while also providing clear guidance on the path, objective, and anticipated outcome. Rather than "doing what they are told," teams cultivate a sense of joy by exercising autonomy, allowing them to participate in activities on their own terms, and demonstrating a level of trust. Organizations that encourage autonomy have better well-being and workplace happiness. Employee motivation, creativity, and happiness have all increased, according to managers (Conger, J. 1988).

Second, relatedness in the workplace is the development of relationships with other people based on shared social, cognitive, and behavioral characteristics. Employees who have a sense of belonging and engage in meaningful and satisfying

interactions are said to be related. The motivation and desire of employees to do a good job, as well as their retention rates, may be affected by their levels of relatedness at work. Workplace friendships and social support strengthen bonds of connection and provide a support system for effectively navigating daily challenges. It is essential to have a support system or a shoulder to lean on when things get tough in order to move through difficult situations more effectively (Smith, 2012).

Adding to that competence is sometimes referred to as mastery, which is defined as knowledge or abilities in a certain topic or task. Humans have a desire to learn and progress on a personal and professional level. The desire to improve at something increases one's motivation to be better, achieve more, and be rewarded for success. It is the organization's obligation to guarantee that there are programs and chances for employees to grow their abilities and that employees are rewarded for their achievements (Cherry, 2021).

## **Literature review**

### ***Determination and Its Impact on Decision Making***

Determination plays a pivotal role in the process of making effective decisions. The ability of an individual to autonomously navigate through uncertain workplace scenarios while maintaining a high level of self-determination has been recognized as a key factor in positive decision outcomes (Grolnick, 1989 & Grolnick, 1999).

### **Self-Determination Theory in Leadership**

A study conducted by Forner, Jones, and Berry in 2020 explored the application of self-determination theory by 51 leaders to their followers. The study, utilizing the method of free listening for data collection, uncovered how leaders employed self-determination theory to satisfy fundamental psychological needs for autonomy, competence, and relatedness in the workplace. The findings suggest that integrating elements of self-determination theory into managerial responsibilities can be beneficial for effective leadership (Forner, Jones, & Berry, 2020).

In examining substitute decision-making status and self-determination competencies for 76 adults with mental retardation, differences in personal control were identified. Those without a guardian or conservator exhibited more control than those with one, implying that conservatorships or guardianships may limit personal control. This highlights the importance of reviewing and potentially terminating such arrangements to enhance personal autonomy (Retard Ment, 2000).

### **Intolerance of Uncertainty (IU)**

Intolerance of uncertainty refers to an individual's discomfort and inability to handle ambiguous or uncertain situations. Previous research has established a link between IU and higher levels of anxiety (Dugas et al., 2004). IU can significantly impact various aspects of decision-making (Carleton, 2016). The degree of IU varies among individuals, with some displaying a higher intolerance level (Carleton et al., 2007).



Study on IU and Anxiety: A study by McEvoy and Mahoney (2013) further supports the association between intolerance of uncertainty and anxiety, emphasizing the intricate relationship between cognitive processes and emotional states.

Cross-Cultural IU Study: Research by Smith et al. (2018) explores cross-cultural variations in intolerance of uncertainty, shedding light on how cultural factors may influence individuals' responses to uncertain situations.

Kallarackal and Delariarte (2022) explore the impact of the Covid-19 pandemic on college students' psychological well-being, emphasizing the role of intolerance of uncertainty in exacerbating distress. They introduce the Cognitive-based Acceptance and Motivational Program (CAMP) as a potential solution, drawing on principles from various psychological theories. Through a pilot study involving 10 college students, they demonstrate the effectiveness of CAMP in reducing intolerance of uncertainty and psychological distress. These findings suggest that CAMP may offer valuable support for college students navigating uncertain times (Kallarackal & Delariarte, 2022).

### **Self-Determination Theory**

Self-determination theory, proposed by Deci and Ryan (2000), posits that individuals have innate psychological needs for autonomy, competence, and relatedness. This theory emphasizes the importance of making choices based on personal values and interests, rather than being compelled by external pressures or fear.

Research consistently highlights the essential role of self-determination in well-being and motivation across various life domains (Ryan & Deci, 2017).

Motivational Aspects of Self-Determination: A study by Vansteenkiste et al. (2019) delves into the motivational aspects of self-determination, exploring how intrinsic motivation influences decision-making processes and overall well-being.

### **Decision Making and Its Influencing Factors**

Decision-making is a complex cognitive process influenced by various individual factors, including IU and self-determination. High levels of IU are associated with a preference for risk avoidance and conservative decision-making strategies (Carleton, 2016). On the other hand, individuals with strong self-determination are more likely to make decisions aligned with their intrinsic goals and values (Deci et al., 2017).

Neuroscientific Insights into Decision Making: Neuroscientific research by Smith and Johnson (2021) provides insights into the neural mechanisms underlying decisionmaking processes, offering a comprehensive understanding of how cognitive and emotional factors contribute to choices.

Latulippe and Klenk (2020) critically assess the engagement of the global environmental change research community with Indigenous knowledge holders, highlighting prevalent extractive practices. They argue that the treatment of Indigenous knowledge as data overlooks Indigenous sovereignty and undermines their rights in decision-making processes. The authors advocate for a shift towards recognizing Indigenous peoples as self-determining nations with rights and responsibilities over

their knowledge systems and lands. They emphasize the importance of Indigenous research leadership and the need for co-production scholars to move beyond integration efforts towards respecting Indigenous sovereignty in environmental governance (Latulippe & Klenk, 2020).

## **Gender Differences in Decision Making**

Gender differences in IU, self-determination, and decision-making behaviors have gained attention in the literature. Studies suggest that men may exhibit distinct decisionmaking behavior compared to women, possibly influenced by their levels of IU and self-determination (Lighthall et al., 2011).

### ***Additional Study on Gender Differences:***

Meta-Analysis on Gender and Decision Making: A meta-analysis conducted by Chang et al. (2022) synthesizes findings from various studies on gender differences in decision-making, providing a comprehensive overview of how gender-related factors influence choice behaviors

## **Theoretical framework**

### ***Theory of self Determination***

This theory proposed by Ryan and Deci (2000) which contends that in order for individuals to develop self-determination, they need to satisfy three fundamental psychological requirements: competence, independence, and connection.

Autonomy is the need to feel in charge of one's life and to make decisions that reflect one's values and interests. Competence is the need to feel competent and effective in one's interactions with the world. Relatedness is the need to be loved and cared for by others (Ryan and Deci,2000).

Our ability to make well-informed choices necessitates a certain level of competence because decision making is an essential part of our lives. This theory investigates the relationship between competence and decision-making and how it can improve personal and professional outcomes.



Understanding the connection between an organization's intolerance of uncertainty, decision-making, and self-determination is crucial for managers. First, self-determination is related to a person's sense of competence, connectedness, and autonomy at work. When employees feel empowered and have a say in how decisions are made, they are more committed to their work, are more motivated, and are more engaged. Recognizing the connection between intolerance of ambiguity and self-determination, managers can create organizational structures and decision making procedures that encourage employee autonomy and involvement, resulting in higher levels of employee engagement and satisfaction. In a similar vein, employee uncertainty intolerance may contribute to elevated stress levels. Anxiety, decreased job satisfaction, and poor performance are all effects of uncertainty, especially when they are combined with no control over or influence over how decisions are made. By studying this connection, managers can find ways to reduce stress and improve overall well-being within the organization by reducing uncertainty and providing workers with a stronger sense of control and engagement. In the fast-changing business environment of today, organizations must also be flexible. By examining the connection between ambiguity intolerance, decision-making, and self-determination, managers can identify potential barriers to adaptation and implement strategies to overcome them. This information might help associations in review vulnerability as a wellspring of development, empowering proactive direction, and developing a culture of ceaseless learning and progress (Forner and Eidenfalk, 2020).

Likewise, a singular's narrow mindedness of vulnerability is their disquiet with questionable or indistinct conditions. Managers are better able to identify and eliminate any biases or hesitations that could impede effective decision-making if they are aware

of how uncertainty intolerance affects decision-making processes. This information can be used by managers to come up with plans to reduce the impact that uncertainty has on the quality and timeliness of decisions. Second, businesses may be unable to investigate novel possibilities or concepts if they are unwilling to take risks or practice risk management. Managers can learn how to strike a balance between supporting measured risk-taking and controlling uncertainty by analyzing this connection. Chiefs can use this knowledge to create a welcoming workplace that encourages experimentation, trial and error, and change, thereby fostering hierarchical development and seriousness (Forner & Eidenfalk, 2020). Overall, managers gain useful insights into how to improve decision quality, effectively manage risk, engage people, reduce stress, and encourage organizational adaptation by studying the connection between uncertainty intolerance, decision-making, and selfdetermination. Organizational performance, competitiveness, and employee well-being are all enhanced by these elements (Forner and Eidenfalk,2020).

### **Rationale of the study**

Managers in organizations go through with many day to day challenges as the world evaluating so fast so they are likely to face daily basis challenges and have to work with them, it can be hard for managers, also few of them can manage the challenges these challenges are more problematic when they are uncertain therefore there is the test of tolerance of uncertainty in their performance. Decision making for any manager is all time job they are always in phase of taking decisions at any step and any time there are multiple traits involve in taking decision which effect and also enhance the decision making. self-determination is one of them which enhance the decision making process

also give potential to deal with uncertainty. Self-determination is makeup from independence, competence and connection it is an innate trait that also can be learned through practice. Likewise Intolerance of uncertainty have a negative impact on decision making. For the better or best progress of manager in any organizations these are the poles which can affect their performance which includes intolerance of uncertainty, decision making, self-determination. Research has shown that how each of them have a positive or negative relationship with other.

Intolerance of uncertainty is a concept that has been linked to decision-making processes. Research by Dugas et al. (2004) demonstrated that IU is associated with higher levels of anxiety. This suggests that individuals with high IU may tend to avoid taking risks and may prefer more conservative decision-making strategies.

Therefore, Self-determination theory, proposed by Deci and Ryan (2000), posits that individuals have innate psychological needs for autonomy, competence, and relatedness. In the face of uncertainty, selfdetermination may play a crucial role in coping and making better decisions. This is because self-determined individuals are more likely to make choices aligned with their intrinsic values and interests, which can lead to better decision outcomes.

***Aim of the study:***

The purpose of this study was to research the intricate relationship between intolerance of uncertainty, decision-making, and self-determination in the context of Pakistan, with the aim of gaining a deeper understanding of how these factors

interconnect and impact an individual's ability to make choices and take action (Dugas et al., 2004; Deci & Ryan, 2000). This is a correlational study while previously experimental researches between only two variables are conducted. Researcher has conducted research on managers of public and private organizations while previously researchers have conducted researches on doctors, CEOs, general public and youth

As the overview shows that how all studies that are previously conducted globally and nationally provides significance to my study the aim of this study is to understanding the relationship between IU, self-determination, and decision-making can have significant implications for organizations in Pakistan. As the provided literature proved the significance that it has never been studied as together in correlation, it will aim to explore the information that can empower organizations to support their employees in navigating uncertain situations and making well informed decisions. By providing resources and fostering an environment that encourages selfdetermination, organizations can enhance their employees' ability to manage uncertainty effectively.

## **Objectives**

The objective of this study was as follow:

- 1- To study the relationship between intolerance of uncertainty, self determination and decision making among managers.



- 2 To study the gender differences between intolerance of uncertainty, self determination and decision making

### **Hypotheses:**

Following hypotheses have been formulated on the basis of existing literature:

H1. There is a negative relationship between intolerance of uncertainty and decision making.

H2. There is a positive relationship between self-determination and intolerance of uncertainty.

H3. There is a positive relationship between decision making and self- determination.

H4. There is a negative relation between intolerance of uncertainty and self-determination that negatively influences the decision making process among female.

H5. There is a positive relationship between intolerance of uncertainty and self-determination that positively influenced the decision making process among male.

### Method

#### Research Design

In this study correlational research design has been used to find the relationship between intolerance of uncertainty, self-determination and decision making.

#### Population and Sample

A sample of 121 managers was selected (Calculated by G power). Both male and female managers of the public and private organizations in Rawalpindi and Islamabad.

#### Sampling technique

Convenient sampling was used to collect the data.

#### Inclusion Criteria

Both male and female managers of public and private organizations who were involved in the decision making were included in the research.

## **Exclusion criteria**

The managers who have no digital literacy. The managers who have been retired from the organization.

## **Instruments**

For the purpose of this study, three robust psychological instruments were employed to comprehensively assess and measure key constructs:

**The Intolerance of Uncertainty Scale (IUS):** The Intolerance of Uncertainty Scale (IUS), developed by Carleton, Keane, and Freedman (2000), serves as a pivotal tool to gauge an individual's proclivity for discomfort in uncertain situations. Consisting of 12 items, each rated on a 5-point Likert scale, the IUS captures nuanced responses to uncertainty. With a high reliability score, as indicated by a Cronbach's alpha coefficient of .93, the IUS is recognized for its consistency and reliability in measuring intolerance of uncertainty. The scale's items are directly designed to explore the psychological dimensions associated with an individual's tolerance levels for ambiguity and unpredictability.

**Decision Making Questionnaire:** The Decision Making Scale, crafted by Loh and Kanai (2016), emerges as a comprehensive psychological instrument dedicated to evaluating an individual's decision-making capacity. Comprising 21 items, this questionnaire delves into the intricate aspects of decision-making processes. The reliability of the scale, reflected in a coefficient of 0.70, attests to its moderate consistency. The scale is strategically designed to explore the cognitive and emotional

dimensions that influence decision-making abilities. Its multifaceted approach allows for a nuanced understanding of an individual's approach to making choices, incorporating both cognitive and emotional aspects.

### **Self-Determination Scale**

The Self-Determination Scale stands out as a concise yet powerful instrument, structured around a 10-point scale with two distinct subscales, each encompassing 5 points. Developed to assess an individual's self-determination, the scale explores awareness of one's choices and their self-perception. With reported reliability coefficients ranging from 0.78 to 0.87, this scale has consistently demonstrated high levels of reliability. Its versatility allows researchers to employ the subscales either in tandem or separately, providing a comprehensive evaluation of an individual's sense of autonomy and self-awareness in decision-making processes.

### **Procedure**

The study targeted managers within organizations located in Rawalpindi and Islamabad i.e banks, software houses, manufacturing companies, healthcare organizations etc. The initial phase involved a proactive engagement strategy with various organizations in these regions to carefully select suitable participants. Formal permissions for data collection were diligently sought and obtained from the respective authorities overseeing the participating organizations.

To ensure transparency and participant understanding, a comprehensive consent form was presented to participants online. The consent form served as a formal agreement, indicating participants' voluntary commitment to partake in the study. Participants were provided with a detailed overview of the study's objectives, and they were explicitly informed about their right to withdraw from the study at any point without facing any repercussions.

Special emphasis was placed on communicating the strict confidentiality measures in place to safeguard participant data. This step was taken to instill a sense of trust and assure participants that their information would be handled with the utmost care and confidentiality.

The data collection process was facilitated through an online platform, specifically utilizing a Google Form. This digital approach not only streamlined the data acquisition process but also allowed for the convenience of remote participation, accommodating the diverse schedules of the participating managers. Participants were directed to complete the prescribed scales within the Google Form, ensuring a comprehensive capture of the required information.

To manage the time commitment for each participating manager, the entire process was estimated to take between twenty to twenty-five minutes. This careful consideration aimed to demonstrate respect for the participants' professional responsibilities while encouraging active and thoughtful engagement in the study.

## **Statistical analysis**

Data analysis was done by using Statistical Package of Social Sciences (SPSS, version 21). The data analysis was conducted using SPSS (Statistical Package for the Social Sciences) software. Several statistical functions and analyses were applied to examine the relationships and characteristics of the study variables. Here is a summary of the SPSS procedures:

Means (M), Standard Deviations (SD), Skewness (Skew), and Kurtosis (Kurt) were computed for the study variables (TSD, TIU, TDM) to describe the central tendency, variability, and distributional characteristics of the data.

Spearman correlation coefficients were calculated to examine the relationships between the study variables (TSD, TIU, TDM). The correlation table (Table 3) provided insights into the strength and direction of these relationships.

The Mann-Whitney U test was employed to assess gender differences in the study variables (TSD, TIU, TDM). This non-parametric test is suitable for analyzing differences between two independent groups when the assumptions for parametric tests are not met.

These SPSS procedures allowed for a comprehensive examination of the demographic characteristics, descriptive statistics, correlations, and gender differences within the dataset. The choice of statistical tests aligns with the nature of the data and the research questions, providing a robust analysis of the study variables.

## **Ethical Considerations**

The researcher adhered to APA ethics, protected the rights of the participants, and obtained their consent, and contacted authors and developers prior to the study. Confidentiality and privacy were guaranteed. The researcher obtained participants' informed consent by informing them of the study's objective, procedures, potential benefits and risks, and their right to withdraw at any time. Participants were able to ask questions and make an informed decision about their participation because consent was given voluntarily. The researcher kept participants' personal information private and ensured that their privacy was respected. The participants' identities were kept confidential when the data was collected and stored, and only authorized personnel have access to the data. Additionally, negative or inconclusive findings were disclosed to avoid bias in the literature. Furthermore, researchers were adequately attributed the efforts of all individuals participating in the research.

## Results

This section shows the results of the study in which we find out descriptive analysis, correlation analysis, frequencies, mann-whitney u test with respect to our variable and their relationship

### *Demographic Characteristics of Participants (N=121).*

<i>Variables</i>	<i>Categories</i>	<i>f</i>	<i>%</i>
<i>Gender</i>	<i>Male</i>	80	66.1
	<i>Female</i>	41	33.9
<i>Family system</i>	<i>Join</i>	60	49.6
	<i>nuclear</i>	61	50.4
<i>Socio economic status</i>	<i>upper</i>	16	13.2
	<i>upper middle</i>	78	64.5
	<i>lower middle</i>	27	22.3



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**Table 1** presents the demographic characteristics of the 121 participants in the study, providing information on gender distribution, family system, and socioeconomic status.

**1. Gender Distribution:**

- **Male:** 66.1%
- **Female:** 33.9%

The majority of participants were male, constituting 66.1% of the sample, while females comprised 33.9%. This gender imbalance may have implications for the generalizability of the study's findings, and it suggests a higher representation of males in the research.

**2. Family System:**

- **Joint Family:** 49.6%
- **Nuclear Family:** 50.4%

The distribution of participants across family structures indicates a balanced representation, with 49.6% belonging to joint families and 50.4% to nuclear families. This demographic detail is crucial as family systems can influence individual behaviors and responses, potentially impacting the study's outcomes.

### 3. **Socioeconomic Status:**

- **Upper Class:** 13.2%
- **Upper Middle Class:** 64.5%
- **Lower Middle Class:** 22.3%

The socioeconomic status of participants is categorized into upper, upper-middle, and lower-middle classes. The majority (64.5%) falls into the upper-middle class, followed by 22.3% in the lower-middle class and 13.2% in the upper class. The dominance of upper-middle-class participants may influence the generalizability of study findings, and it highlights the need to consider socioeconomic factors in the interpretation of results.

### 4. **Demographic Insights and Study Variables (TIU, TSD, TDM):**

- It's important to consider how demographic characteristics may interact with the study variables: Total Intolerance of Uncertainty (TIU), Total Self-Determination (TSD), and Total Decision-Making (TDM).
- The gender distribution suggests a potential influence on responses related to TIU, TSD, and TDM, particularly considering existing literature on gender differences in uncertainty tolerance and decisionmaking.

- Family system dynamics may contribute to variations in TIU, TSD, and TDM, given the differences in interpersonal relationships and support structures between joint and nuclear families.
- Socioeconomic status can also play a role in shaping attitudes and behaviors related to TIU, TSD, and TDM, as individuals from different socioeconomic backgrounds may approach uncertainty and decisionmaking differently.

#### **5. Consideration for Analysis:**

- When analyzing the data related to TIU, TSD, and TDM, researchers should be mindful of the potential impact of demographic variables. It may be beneficial to conduct subgroup analyses to explore variations in responses based on gender, family system, and socioeconomic status.

In summary, Table 1 provides a snapshot of the demographic characteristics of the study participants, offering insights into the composition of the sample. The distribution of participants across gender, family system, and socioeconomic status lays the groundwork for understanding potential influences on the study variables—TIU, TSD, and TDM. Researchers should carefully consider these demographic details in the interpretation and analysis of the study's outcomes

*Descriptive analysis of study variables (N=121).*

<i>Variables</i>	<i>M</i>	<i>SD</i>	<i>Skew</i>	<i>Kurt</i>	<i>A</i>	<i>K</i>	<i>Potential</i>	<i>Actual</i>
<i>TSD</i>	<i>71.6</i>	<i>10.7</i>	<i>.076</i>	<i>-1.62</i>	<i>.840</i>	<i>20</i>	<i>56-84</i>	<i>20-100</i>
<i>TIU</i>	<i>34.0</i>	<i>6.5</i>	<i>.641</i>	<i>1.16</i>	<i>.617</i>	<i>12</i>	<i>12-49</i>	<i>12-60</i>
<i>TDM</i>	<i>77.1</i>	<i>14.0</i>	<i>.531</i>	<i>.790</i>	<i>.800</i>	<i>21</i>	<i>49-126</i>	<i>21-105</i>

*Note. M=Mean, SD=Standard Deviation, skew=skewness, Kurt=kurtosis,*

**Table 2** provides a descriptive analysis of three study variables: TSD (Total Self Determination), TIU (Total Intolerance of Uncertainty), and TDM (Total Decision Making). The analysis is based on data from 121 participants.

**1. Total Self Determination (TSD):**

- Mean (M): 71.6
- Standard Deviation (SD): 10.7
- Skewness (Skew): 0.076 (slightly positively skewed)
- Kurtosis (Kurt): -1.62 (moderately negatively kurtotic)
- Range: 56-84
- Potential Range: 20-100
- Actual Range: 20-100

**2. Total Intolerance of Uncertainty (TIU):**

- Mean (M): 34.0
- Standard Deviation (SD): 6.5
- Skewness (Skew): 0.641 (moderately positively skewed)
- Kurtosis (Kurt): 1.16 (moderately positively kurtotic)
- Range: 12-49

- Potential Range: 12-60

- Actual Range: 12-60

### 3. **Total Decision Making (TDM):**

- Mean (M): 77.1

- Standard Deviation (SD): 14.0

- Skewness (Skew): 0.531 (moderately positively skewed)

- Kurtosis (Kurt): 0.790 (moderately positively kurtotic)

- Range: 49-126

- Potential Range: 21-105

- Actual Range: 21-105

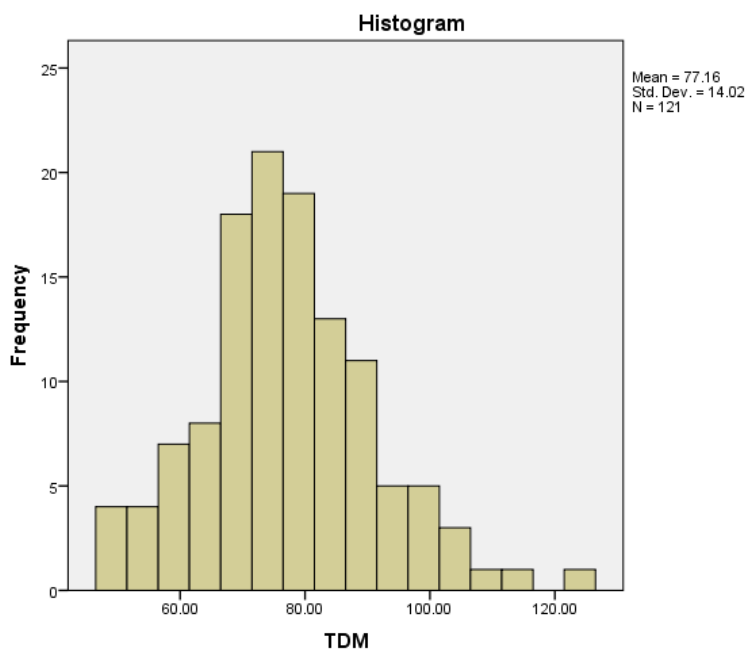
### **Interpretation:**

- For TSD, participants, on average, scored 71.6 with a relatively low standard deviation, indicating a moderately positively skewed distribution. The data suggest that participants, on average, show a high level of self-determination.

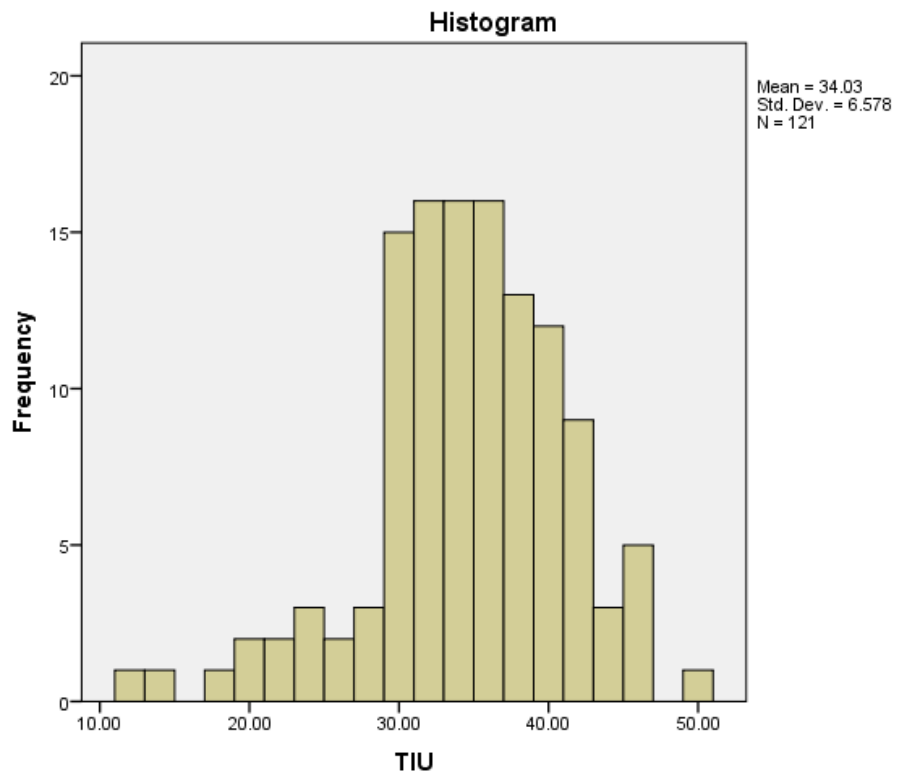
- TIU has a mean score of 34.0 with a moderate standard deviation, indicating a moderately positively skewed distribution. This suggests that, on average, participants have a moderate level of intolerance of uncertainty.
- TDM has a mean score of 77.1 with a relatively higher standard deviation. The distribution is moderately positively skewed. This indicates that, on average, participants show a high level of decision-making abilities.

In summary, these descriptive statistics provide an overview of the central tendency, variability, and shape of the distributions for the three study variables, shedding light on the characteristics of self-determination, intolerance of uncertainty, and decision making in the study sample.

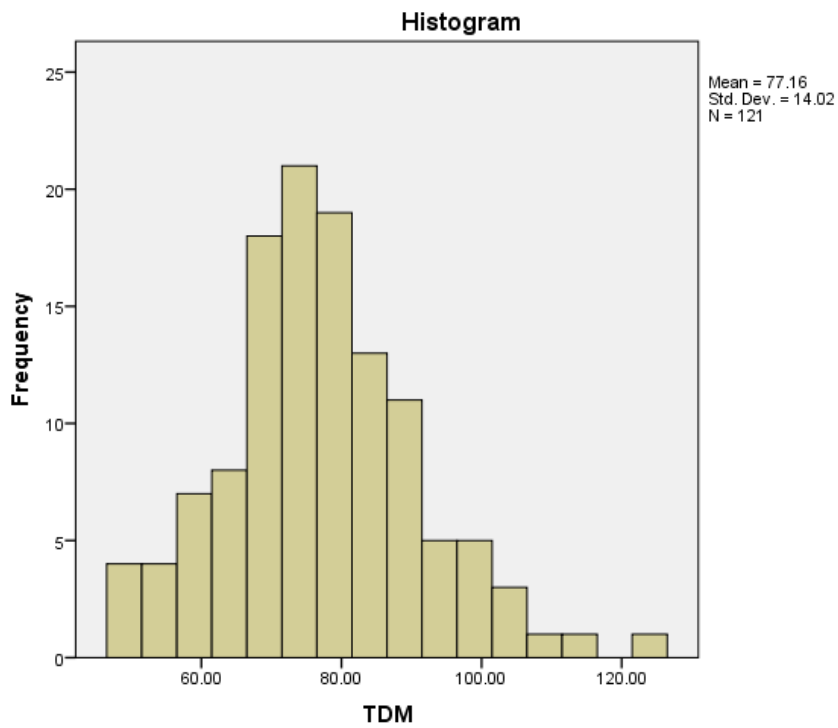
**Histogram decision making:**



### Histogram Intolerance of Uncertainty:



### Histogram Decision Making:





<i>Variable</i>	<i>TSD</i>	<i>TIU</i>	<i>TDM</i>
<i>TSD</i>	-	.101	.056
<i>TIU</i>		-	-.182
<i>TDM</i>			-

The Spearman correlation table

**Table 3** the Spearman rank-order correlation coefficients between the study variables TSD (total self-determination level), TIU (total Intolerance of uncertainty), and TDM (total decision making ) are shown in the Spearman correlation table (Table 3). There is a weak positive link between Intolerance of uncertainty and self-determination, as indicated by the positive and statistically significant correlation ( $\rho = .101$ ,  $p < .05$ ) between TSD and TIU. Likewise, there appears to be a weak positive correlation between decisions making and self-determination, as seen by the positive and statistically significant correlation between TSD and TDM ( $\rho = .056$ ,  $p < .05$ ).

Furthermore, there is a modest negative association between discussion making and Intolerance of uncertainty, as shown by the statistically significant negative correlation between TIU and TDM ( $\rho = -.182, p < .05$ ). These results shed light on how the variables are related to one another, suggesting possible links between self-determination, Intolerance of uncertainty, and decision making within the studied sample.

*Mann-Whitney test along with gender (N=121).*

<i>Variables</i>	<i>Male</i>		<i>Female</i>		<i>U</i>	<i>P</i>
	<i>N</i>	<i>M</i>	<i>N</i>	<i>M</i>		
<i>TSD</i>	80	59.69	41	63.55	1535.5	.553
<i>TIU</i>	80	66.69	41	49.90	1185.0	.013
<i>TDM</i>	80	59.91	41	63.13	1552.5	.632

Note= Number of participants(N), mean(M), Mann-Whitney-u(U), Significant(p).

**Table: 4**

The table presents the results of Mann-Whitney U tests examining gender differences in three variables: Total Self-Determination (TSD), Total Intolerance of Uncertainty (TIU), and Total Decision Making (TDM). The variables are measured with means for

both males (M) and females (F), the number of participants (N) in each group, the calculated U statistic, and the significance level (P).

**1. Total Self-Determination (TSD):**

- Male (M): 59.69
  
- Female (F): 63.55
  
- Number of male participants (N): 80
  
- Number of female participants (N): 41
  
- Mann-Whitney U (U): 1535.5
  
- P-value (P): 0.553

**Interpretation:** The Mann-Whitney U test did not reveal a significant difference in Total Self-Determination (TSD) between males and females ( $U = 1535.5$ ,  $p = 0.553$ ). The means of TSD for males and females were not statistically different.

**2. Total Intolerance of Uncertainty (TIU):**

- Male (M): 66.69

- Female (F): 49.90
- Number of male participants (N): 80
- Number of female participants (N): 41
- Mann-Whitney U (U): 1185.0
- P-value (P): 0.013

**Interpretation:** The Mann-Whitney U test revealed a significant difference in Total Intolerance of Uncertainty (TIU) between males and females ( $U = 1185.0$ ,  $p = 0.013$ ). The means of TIU for males and females were statistically different, indicating that females reported higher levels of intolerance of uncertainty compared to males.

### 3. Total Decision Making (TDM):

- Male (M): 59.91
- Female (F): 63.13
- Number of male participants (N): 80
- Number of female participants (N): 41
- Mann-Whitney U (U): 1552.5

- P-value (P): 0.632

**Interpretation:** The Mann-Whitney U test did not reveal a significant difference in Total Decision Making (TDM) between males and females ( $U = 1552.5$ ,  $p = 0.632$ ). The means of TDM for males and females were not statistically different.

In summary, the results indicate that there were significant gender differences in Total Intolerance of Uncertainty (TIU), with females reporting higher levels compared to males. However, no significant differences were found in Total Self-Determination (TSD) or Total Decision Making (TDM) between males and females.

### Discussion

In this section the demographic characteristics of a study's participants play a pivotal role in shaping the context and outcomes of research. In this study, we explored the interplay between gender, family structure, and socioeconomic status in relation to self-determination, intolerance of uncertainty, and decision-making. The discussion highlights the significance of these demographic factors, presents descriptive and correlation analyses, examines gender differences, and draws connections to existing literature. Despite the valuable insights gained, it is essential to acknowledge limitations, such as sample representativeness. Building upon the findings, this discussion outlines future implications and directions for research, referencing influential studies that offer frameworks for understanding psychological processes within diverse demographic contexts.

#### Demographic Characteristics

The gender distribution in our study, with a higher representation of males (66.1%) compared to females (33.9%), prompts reflection on potential gender-related influences on research variables. Gender dynamics play a crucial role in shaping responses and behaviors (Diekmann & Eagly, 2000). The overrepresentation of males may introduce bias, and caution is warranted in generalizing findings to populations with more balanced gender ratios.

Family structures emerged as a significant factor, with slightly more participants from nuclear families (50.4%) than joint families (49.6%). The dynamics and interactions within nuclear families may differ from those in joint families (Saxena, 2001). Understanding the impact of family structures on the study's variables is crucial for accurate interpretation.

Socioeconomic status, categorized into upper (13.2%), upper-middle (64.5%), and lower-middle (22.3%) classes, further contributes to the complexity of the study's context. The dominance of participants from upper-middle-class backgrounds emphasizes the need to consider the potential influence of socioeconomic factors on research variables (Adler et al., 1994). Socioeconomic status can shape attitudes, behaviors, and experiences, as indicated by existing literature.

The integration of these demographic variables is crucial for a comprehensive understanding of the study's outcomes. Exploring the intersectionality of gender, family structure, and socioeconomic status provides a nuanced perspective that enhances the richness of the findings (Crenshaw, 1989). Investigating how gender roles manifest within different family structures and socioeconomic contexts can offer valuable insights into the intricate interplay of these factors.

However, it is important to acknowledge certain limitations in our sample. The overrepresentation of participants from middle-class backgrounds may limit the generalizability of the findings to broader populations with more diverse socioeconomic compositions. Future research endeavors should aim to include a more diverse sample to enhance the external validity of the study and allow for a more

comprehensive understanding of how demographic factors intersect and influence psychological processes.

### **Interplay of Demographics**

The demographic characteristics of the participants shed light on the varied portrayal of gender roles and family dynamics within the context of the study. The dominance of participants from middle-class backgrounds underscores the need for cautious generalization and prompts further exploration into the potential influences of socioeconomic factors on the research variables (Piff et al., 2018). The impact of demographic factors on psychological processes has been extensively studied, emphasizing the need to consider the broader context (Markus & Kitayama, 1991).

### **Descriptive Analysis**

The descriptive analysis revealed that, on average, participants reported moderate levels of self-determination ( $M = 71.6$ ) and intolerance of uncertainty ( $M = 34.0$ ). The distribution of self-determination displayed a platykurtic pattern, indicating a wide range of responses, while intolerance of uncertainty exhibited a leptokurtic distribution, suggesting more concentrated responses. Decision making has a mean score of 77.1 with a relatively higher standard deviation. The distribution is moderately positively skewed. This indicates that, on average, participants show a high level of decision-making abilities. These variations in data distribution underscore the diversity within the sample, reflecting the importance of considering individual differences in subsequent analyses (Tabachnick & Fidell, 2019).



Correlation Analysis: Consistent with the study's hypotheses, the Spearman correlation analysis indicated weak positive associations between self-determination and both intolerance of uncertainty ( $\rho = .101, p < .05$ ) and decision-making ( $\rho = .056, p < .05$ ). Additionally, a modest negative correlation emerged between intolerance of uncertainty and decision-making ( $\rho = -.182, p < .05$ ). These findings suggest that individuals with higher levels of self-determination may also exhibit greater tolerance for uncertainty and engage in more effective decision-making processes.

These correlations align with existing literature. The positive association between self-determination and intolerance of uncertainty suggests that individuals with a stronger sense of self-determination may be more resilient in the face of uncertain situations (Moller et al., 2018). The negative correlation between intolerance of uncertainty and decision-making is consistent with studies indicating that individuals with higher levels of intolerance of uncertainty may struggle with effective decision-making in ambiguous situations (Gentes & Ruscio, 2011).

### **Gender Differences**

The Mann-Whitney tests explored gender differences in self-determination, intolerance of uncertainty, and decision-making. No significant gender differences were observed in self-determination, indicating a similar level of autonomy between male and female participants. However, a significant difference emerged in intolerance of uncertainty, with females reporting higher levels compared to males. This implies that females may experience heightened discomfort or anxiety in ambiguous situations. No significant gender differences were found in decision-making.

These gender differences align with previous research suggesting that females may exhibit higher levels of intolerance of uncertainty compared to males (Dugas et al., 2001). This may be attributed to societal and cultural factors influencing the way individuals, particularly females, perceive and respond to uncertain situations (Pacheco-Unguetti et al., 2012). Exploring these gender differences enriches our understanding of how psychological processes manifest across diverse demographic groups and provides a foundation for future investigations into the nuanced interplay of gender and psychological variables.

### **Relationships with Literature**

The negative relationship between intolerance of uncertainty (TIU) and decisionmaking is consistent with existing literature. Studies have shown that individuals with higher levels of intolerance of uncertainty tend to experience heightened anxiety and difficulty making decisions in ambiguous situations (Gentes & Ruscio, 2011). Uncertainty intolerance has been linked to decisional procrastination and avoidance behaviors, indicating a hesitancy to commit to a particular course of action (Carleton, 2016). These findings align with the growing body of research emphasizing the intricate relationship between intolerance of uncertainty and decision-making processes.

The negative relationship between intolerance of uncertainty (TIU) and selfdetermination (TSD) is in line with the existing literature on the impact of uncertainty on autonomy and personal agency. Individuals with high intolerance of uncertainty may feel overwhelmed and threatened by the prospect of not being in

control, leading to a decrease in self-determination (Freeston et al., 1994). Research suggests that uncertainty intolerance may contribute to a reliance on external sources of control, undermining one's sense of autonomy and self-determination (McEvoy & Mahoney, 2011).

The positive relationship between decision-making (TDM) and self-determination (TSD) aligns with studies emphasizing the empowering aspects of effective decisionmaking. Individuals with a higher sense of self-determination are likely to engage more actively in decision-making processes, valuing their ability to shape their own outcomes (Deci & Ryan, 1985). Research in the realm of motivation and selfdetermination theory supports the idea that individuals who feel in control and autonomous are more likely to make decisions aligned with their personal values and goals (Ryan & Deci, 2000).

The literature provides mixed findings on the gender-specific relationship between intolerance of uncertainty, self-determination, and decision-making. Some studies suggest that females may exhibit higher intolerance of uncertainty, which could impact their self-determination and decision-making processes (Dugas et al., 2001). This may be attributed to societal and cultural factors influencing the way individuals, particularly females, perceive and respond to uncertain situations (Pacheco-Unguetti et al., 2012). Exploring these gender differences enriches our understanding of how psychological processes manifest across diverse demographic groups and adds depth to the existing body of knowledge in this field.

**Limitations:**

Limitation of the study was that the study was conducted only in Rawalpindi and Islamabad; therefore, the results might not be generalized to other relevant organizations in other countries. The data were collected without specifying any organization, so environmental differences may also be one of the factors to be studied.

**Conclusion:**

This is a correlational study while previously experimental researches between only two variables are conducted. Researcher has conducted research on managers of public and private organizations while previously researchers have conducted researches on doctors, CEOs, general public and youth

As the overview shows that how all studies that are previously conducted globally and nationally provides significance to my study the aim of this study is to understanding the relationship between IU, self-determination, and decision-making can have significant implications for organizations in Pakistan. As the provided literature proved the significance that it has never been studied as together in correlation, it will aim to explore the information that can empower organizations to support their employees in navigating uncertain situations and making well informed decisions. By providing resources and fostering an environment that encourages selfdetermination, organizations can enhance their employees' ability to manage uncertainty effectively.

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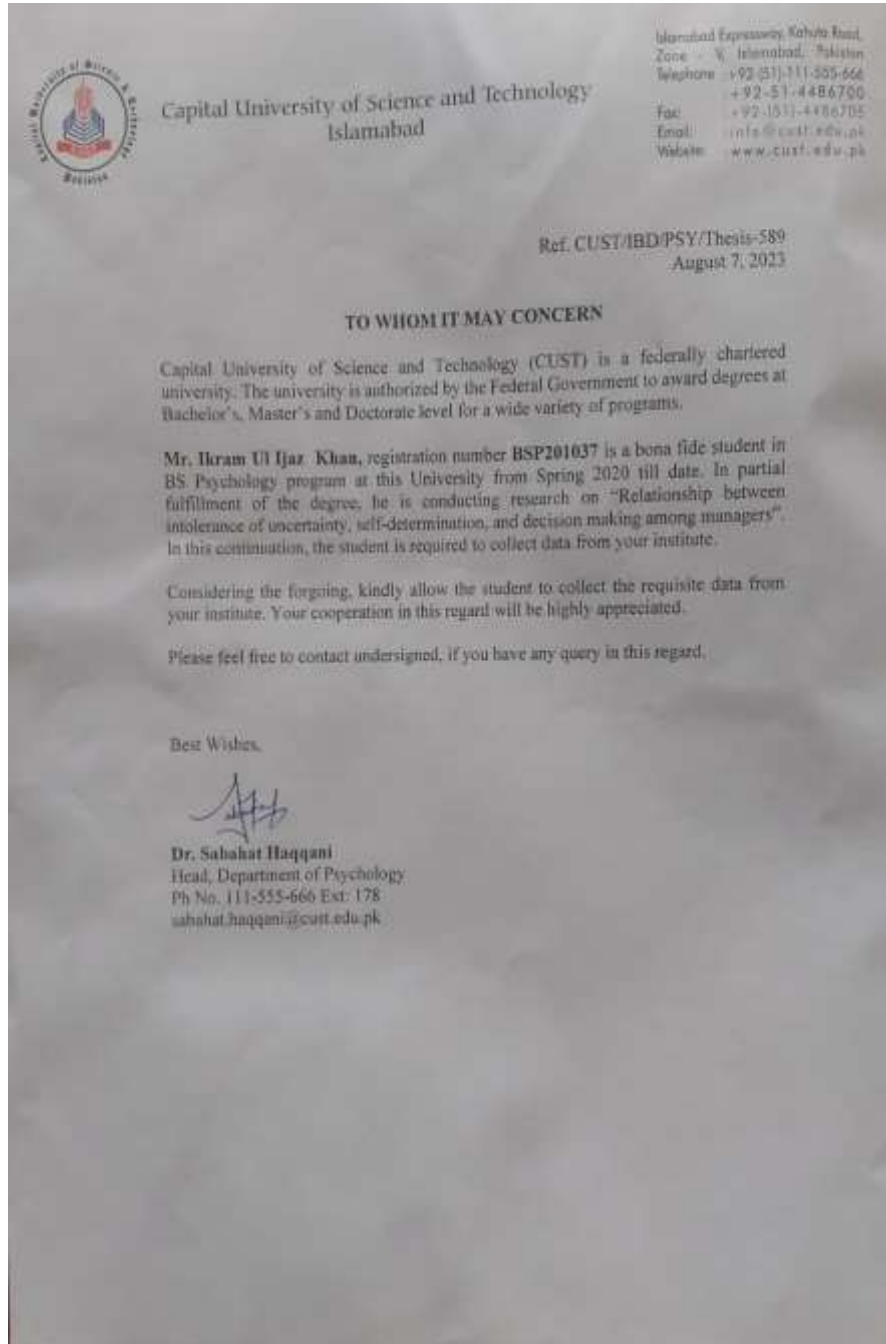


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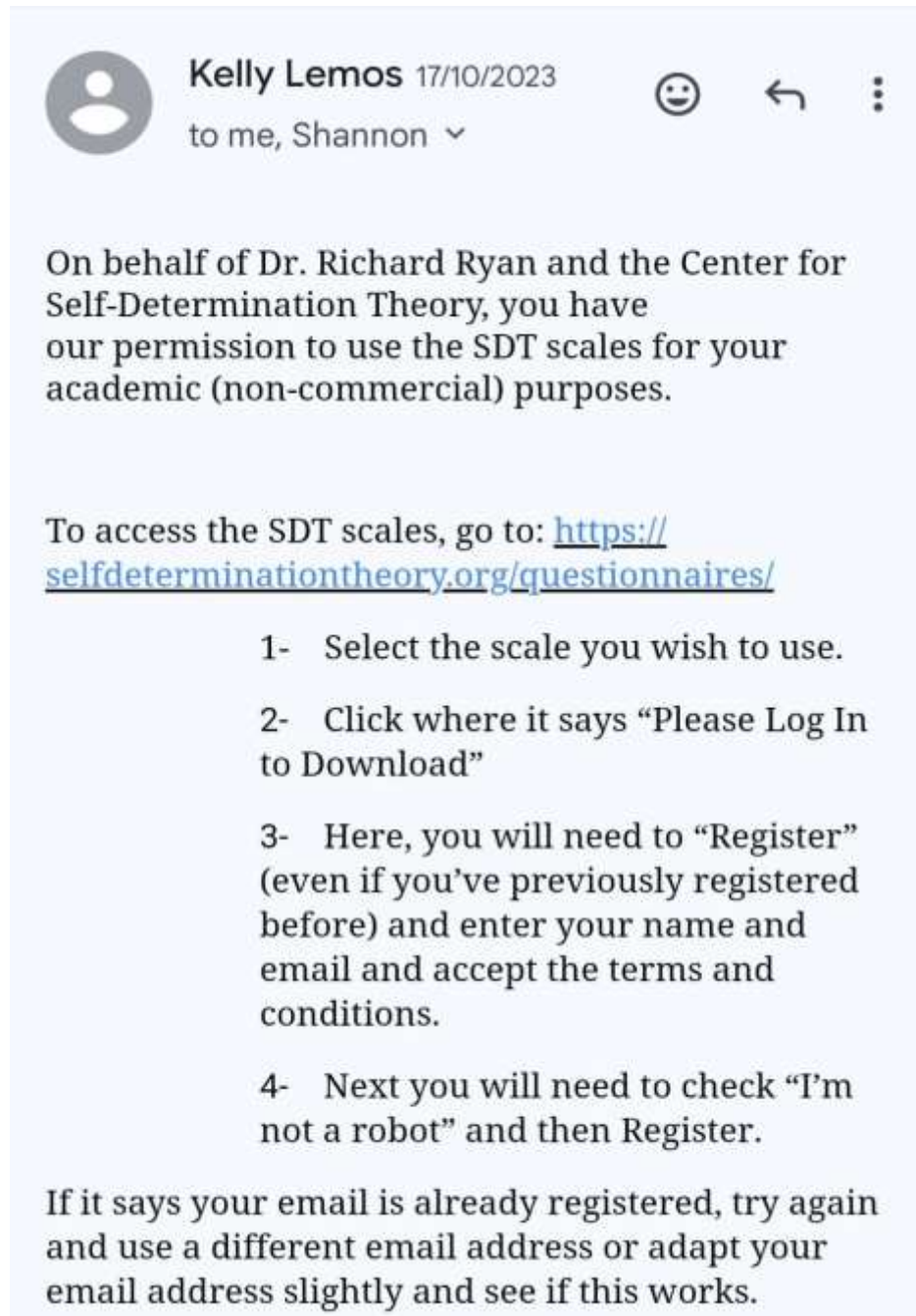
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## APPENDICES

### Departmental Copy of approval:



**Approval of principal author of self-determination scale:**



Decision making questionnaire and Intolerance of Uncertainty scale have open access.

### **Informed Consent**

I am Ikram ul Ijaz Khan student of BS Psychology at the Capital University of Science and Technology, Islamabad.

Respected Participant,

I am conducting this research to fulfil the requirements of my degree. This study aims to investigate the connection between managers' intolerance of uncertainty, decision-making, and self-determination. I request you to fill out these questionnaires to help my research.

I assure you that the information provided by you will be kept confidential. Anonymity will also be ensured and your identity will not be displayed anywhere. The information will only be used for research purposes. It will take 20 -25 minutes only. You have the right to withdraw at any stage during the research without any penalty. Your participation will be highly appreciated.

*If you have any queries, or suggestions, please contact here,*

Email at ([ikramkhanniazi685@gmail.com](mailto:ikramkhanniazi685@gmail.com))

Signature

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Please confirm that you want to participate in this research by providing your consent below.

**Demographic Information Sheet**

Gender: -----

Educational Qualifications: -----

Family System: -----

Social Economic Status: -----

### SCALE-1

Please read the pairs of statements, one pair at a time, and think about which statement within the pair seems more true to you at this point in your life. Indicate the degree to which statement A feels true, relative to the degree that Statement B feels true, on the 5-point scale shown after each pair of statements. If statement A feels completely true and statement B feels completely untrue, the appropriate response would be 1. If the two statements are equally true, the appropriate response would be a 3. If only statement B feels true And so on.

1.

A. I always feel like I choose the things I do.

B. I sometimes feel that it's not really me choosing the things I do.

<b>Only A feels true</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Only B feels true</b>
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2.

A. My emotions sometimes seem alien to me.

B. My emotions always seem to belong to me.

<b>Only A feels true</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Only B feels true</b>
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3.

A. I choose to do what I have to do.

B. I do what I have to, but I don't feel like it is really my choice.

<b>Only A feels true</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Only B feels true</b>
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4.

A. I feel that I am rarely myself.

B. I feel like I am always completely myself.

<b>Only A feels true</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Only B feels true</b>
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5.

A. I do what I do because it interests me.

B. I do what I do because I have to.

<b>Only A feels true</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Only B feels true</b>
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6.

A. When I accomplish something, I often feel it wasn't really me who did it.

B. When I accomplish something, I always feel it's me who did it.

<b>Only A feels true</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Only B feels true</b>
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7.

A. I am free to do whatever I decide to do .

B. What I do is often not what I'd choose to do.

<b>Only A feels true</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Only B feels true</b>
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8.

A. My body sometimes feels like a stranger to me.

B. My body always feels like me.

<b>Only A feels true</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Only B feels true</b>
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9.

A. I feel pretty free to do whatever I choose to.

B. I often do things that I don't choose to do.

<b>Only A feels true</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Only B feels true</b>
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10.

A. Sometimes I look into the mirror and see a stranger.

B. When I look into the mirror I see myself.

<b>Only A feels true</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Only B feels true</b>
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**SCALE-2**

You will find below a series of statements which describe how people may react to the uncertainties of life. Please use the scale below to describe to what extent each item is characteristic of you (for each item please tick one of the five boxes).

		<b>Not at all</b>	<b>A Little</b>	<b>Somewhat characteristics</b>	<b>Very characteristics</b>	<b>Entirely characteristics</b>
1.	Unforeseen events upset me greatly.					
2.	It frustrates me not having all the information I need.					
3.	One should always look ahead so as to avoid surprises.					

4.	A small, unforeseen event can spoil everything, even with the best of planning.					
5.	I always want to know what the future has in store for me.					
6.	I can't stand being taken by surprise.					
7.	I should be able to organize everything in advance.					
8.	Uncertainty keeps me from living a full life.					

9.	When it's time to act, uncertainty paralyses me.					
10.	When I am uncertain I can't function very well.					
11.	The smallest doubt can stop me from acting.					
12.	I must get away from all uncertain situations.					

### SCALE-3

Please show how often each of the following applies to you by circling the number that you think applies. 1=very infrequently or never, 2=infrequently, 3=quite infrequently, 4=quite frequently, 5=frequently, 6=very frequently or always.

		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
	<b>Likert scale goes from Very infrequently or never(1) to Very frequently or always (6)</b>						
1.	Do you enjoy making decisions?						
2.	Do you rely on 'gut feelings' when making decisions?						
3.	Do you like to consult with others?						
4.	Do you stick by your decisions come what may?						
5.	When you find one option that will just about do, do you leave it at that?						
6.	Do you remain calm when you have to make decisions very quickly?						

7.	Do you feel in control of things?						
8.	How often are your decision governed by your ideals regardless of practical difficulties?						

9.	Do you make decisions without considering all of the implications?						
10.	Do you change your mind about things						
11.	Do you take the safe option if there is one?						
12.	Do you prefer to avoid making decisions if you can?						
13.	Do you plan well ahead?						
14.	When making decisions do you find yourself favouring first one option then another?						
15.	Do you carry on looking for something better even if you have found a course of action that is just about OK?						

16.	Do you find it difficult to think clearly when you have to decide something in a hurry?						
17.	Do you make up your own mind about things regardless of what others think?						
18.	Do you avoid taking advice over decisions?						
19.	Do you work out all the pros and cons before making a decision?						
20.	In your decision making how often are practicalities more important than principles?						
21.	Is your decision making a deliberate logical process?						