# Navigating Uncertainty: An In-depth Exploration of Consumer Purchasing Patterns in Times of Crisis Using NVivo Software

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#### Abstract

Design/Methodology/Approach: With an emphasis on panic scenarios, this research uses a qualitative data analysis technique to examine consumer purchase behaviours during times of crisis. Based on keywords like "panic," "consumer," "stock market," and "investment decisions," we have examined 29 research articles from A and A\* Journals. Using QSR International's NVivo software, the gathered documents are carefully examined.

Purpose: This research's main goal is to provide insightful knowledge to the marketing industry. Our specific goal is to identify the variables that affect consumers' purchase decisions during times of fear. The study's conclusions are essential for managers who are trying to come up with plans that will help them better understand the panic buying behaviour of their customers and make it easier to predict what they will do in the future.

Findings: Our study's conclusions are obtained using hierarchical charts and text search queries, which highlight the different aspects of the dataset that influence panic purchasing behaviour. Important elements including events, COVID-19, collecting behaviour, and buying behaviour are highlighted using a word cloud analysis. The parameters that have been found provide invaluable tools for future scholars that are delving into this field.

Significance: Because it is a novel addition to the study of panic purchasing using the NVivo software approach, this research is very important. Through a qualitative technique to gather insightful viewpoints, the writers analyse current literature in an effort to uncover several elements impacting consumer purchasing behaviour.

#### Introduction

The study of consumer behaviour is a complex topic that is impacted by a dynamic interplay of elements that come to the forefront during times of crisis and emergency, decision-making processes, and exposure to news and information. In the framework of the study subject titled "Navigating Uncertainty: An In-depth Exploration of Consumer Purchasing Patterns in Times of Crisis Using NVivo Software," we look into the many different aspects of consumer behaviour that are present during times of crisis and pandemics.

The authors Kouchaki and Desai (2015) stress the fact that pandemics, which have traditionally been linked with chaos and turbulence, provoke tremendous worry and apprehension about the future on the part of people. As a result of the widespread uncertainty that surrounds the supply of basic goods during severe crises, psychological upheaval is intensified. There are a number of notable examples that illustrate the influence that pandemics have on consumer behaviour. Some examples include the panic purchasing that occurred during the SARS epidemic in Bangladesh in 2003 and the frantic procurement of iodized salt that occurred after the nuclear leaking disaster in Japan in 2011.

As Arafat et al. (2020) have shown, emergencies are a significant contributor to elevated levels of anxiety, sadness, and stress, especially in situations when basic resources are in short supply. The subsequent waves of panic buying highlight the substantial effect that crises have on consumer behaviour, indicating that impulsive purchasing is a coping strategy that people use when they are confronted with unexpected circumstances.

Investigating the procedures by which decisions are made provides an additional depth to our investigation. Several researchers, including Durvasula et al. (1993), have investigated the complexities of the decision-making process that customers go through while making purchases. These researchers have shown that elements such as gender, crosscultural differences, and market segmentation all exhibit observable impacts. Different decision-making styles act as cognitive filters, influencing the way information is processed and the quality of decisions we make.

An additional layer of complexity is added to the picture of consumer behaviour by the idea of real-world rationality, which was brought to light by scholars such as Barberis and Thaler (2003). According to Tuyon and Ahmad (2016), human behaviour, which is intrinsically unpredictable, is driven by a multitude of behavioural elements, which contribute to the inefficiency and instability of the market. Behavioural finance, which was proposed by Statman (2014), is based on the idea that human decision-making often demonstrates irrationality, which has tangible implications for the selection of investments and the management of portfolios.

When it comes to pandemics and other types of crisis circumstances, the role of information, social media, and the news becomes very important in playing a vital role in affecting consumer behaviour. Several authors, including Islam et al. (2021), shed light on the ways in which social media platforms exacerbate the tendency to engage in panic purchasing and exacerbate anxiety. It has been emphasised by Naeem (2020) and Liu and Sutanto (2012) that the effect of rumours and disinformation during times of emergency carries a significant amount of power in terms of exerting influence over customers to make illogical purchase choices.

This thorough review lays the groundwork for a more in-depth investigation into the varied nature of consumer behaviour in crisis circumstances. This investigation will make use of the NVivo software to analyse qualitative data and give useful insights into the intricacies of consumer purchase habits during times of uncertainty.

#### **Panic Buying Behavior**

Panic buying, characterized by the frenzied acquisition of goods, has garnered substantial attention in last few years, mainly in the context of COVID-19 and various global crises. This literature review endeavors to provide an exhaustive and structured overview of the multifaceted factors and psychological aspects that underpin panic buying behavior. Drawing on a diverse range of research articles and studies, the provided information offers a comprehensive exploration of the various facets of panic buying and insights provided by different authors:

#### **Meaning and Definition**

It begins by defining panic buying as the excessive accumulation of goods, often driven by fear, anxiety, or perceived threats of shortages. The concept extends beyond rational stockpiling and can result in irrational behaviors during emergencies. Various sources contribute to these definitions, highlighting that panic buying is distinct from hoarding disorder and is laden with negative emotions like anxiety. It emerges in response to perceived dangers, such as impending shortages or price increases, and is characterized by excessive purchases during crises and disruptive events. Panic buying is a highly involved purchasing process by consumer which is influenced by a myriad of psychological and situational factors. The literature reviewed here underscores the critical importance of understanding consumers' emotional states, past experiences, and demographic characteristics when examining panic buying. During global crises like the COVID-19 pandemic, this phenomenon becomes more pronounced and can significantly impact the availability of essential goods.

#### **Importance**

Understanding the importance of studying panic buying behavior becomes evident in the context of consumer welfare and relationships between firms and customers. Panic buying can profoundly affect both, disrupting long-term relationships and causing hardship for individuals who cannot make large purchases. Policymakers and marketers must comprehend the intricacies of panic buying to respond effectively to crises. Research underscores that public education about the nature of panic buying and strategies to address it are essential to maintaining fairness and access to essential goods for all.

#### Reason or Factors Associated

Moving on to the factors associated with panic buying, the information discusses the diverse influences on this behavior. Internal psychological safety needs, external environmental factors, societal norms, and individual characteristics all play roles in shaping panic buying tendencies. Emotions like anxiety, stress, uncertainty, fear, and social influences are key factors contributing to this behavior. Researchers emphasize that these factors can trigger panic buying, particularly when individuals perceive a lack of control or when they witness empty shelves and observe the actions of others.

#### **Antecedents of Panic Buying**

One of the fundamental antecedents of panic buying behavior lies in an individual's psychological state, specifically elevated levels of anxiety, depression, and stress (Taylor, 2021). Extensive research has indicated that individuals experiencing heightened stress and anxiety often resort to panic buying as a coping mechanism (Taylor, 2021). This relationship between emotional distress and panic buying is further bolstered by findings that individuals tend to purchase more items during moments of increased stress and fear (Alfuqaha et al., 2022).

Moreover, past life events and an individual's perception of the future play a pivotal role in explaining panic buying behavior given by (Lins & Aquino, 2020; Taylor, 2021). Consumer researchers emphasize the significance of studying consumers' life stages and experiences as a means to comprehend their current buying patterns as per (Klein & Sharma, 2022; Ngcamu et al., 2023). This underscores the importance of considering consumers' past experiences and future concerns when investigating the phenomenon of panic buying.

Ngcamu et al. (2023) mentioned that consumer decision-making styles and involvement also exert a substantial influence on panic buying. Impulse buying, characterized by a spontaneous urge to purchase products with minimal regard for consequences, has been associated with panic buying behavior (Tran, 2022). Factors such as interactions with peers, exposure to advertising, disposable income, and access to credit cards contribute to impulsive and reckless buying (Muruganantham & Bhakat, 2013; Dholakia, 2020b).

#### **Psychological Aspects of Panic Buying**

It is crucial to recognize that panic buying is not a uniform behavior; its intensity can vary significantly among individuals. Notably, strong panic buyers are often more likely to be male, have more children, and rely less on e-

commerce channels for their purchases (Bentall et al., 2021). This underscores how demographic and lifestyle factors play a crucial role in influencing the scope of panic purchasing. Importantly, when taken to extreme levels, panic buying can lead to financial debts and adversely impact mental health (Taylor, 2021).

Another psychological aspect intricately related to panic buying is consumer collecting behavior. Collecting can serve as a response to emotional loss, a form of investment, or a routine human activity (Lee et al., 2022). The attachment and emotional significance that consumers place on collectible items can contribute to their propensity for panic buying (Kaur & Malik, 2020).

#### **Panic Buying in Uncertain Times**

The exploration of consumer purchasing patterns in times of crisis stands at the forefront of research, particularly in the context of the topic "Navigating Uncertainty: An In-depth Exploration of Consumer Purchasing Patterns in Times of Crisis Using NVivo Software." To contextualize this inquiry, it is imperative to delve into existing literature that sheds light on the multifaceted dimensions of consumer behavior during tumultuous times. Notably, Kouchaki and Desai (2015) underscore the alarming menace of pandemics, elucidating the profound anxiety and trepidation instigated by such outbreaks. This psychological turmoil is exacerbated by the pervasive uncertainty surrounding the availability of essential commodities during crises, a phenomenon evident in instances like the panic buying episodes during the 2003 SARS outbreak in Bangladesh and the frenetic acquisition of iodized salt during Japan's 2011 nuclear leakage incident. Complementing this exploration, Arafat et al. (2020) delve into consumer responses during emergencies, emphasizing the elevated levels of anxiety, depression, and stress triggered by crises, which manifest in waves of panic buying. Additionally, scholars such as Durvasula et al. (1993) contribute insights into the intricacies of consumer decisionmaking processes, highlighting the influences of gender, cross-cultural disparities, and market segmentation. This review extends to the realm of real-world rationality, where Barberis and Thaler (2003) and Tuyon and Ahmad (2016) elucidate the unpredictable nature of human behavior, shaping market inefficiency and instability. The interplay of news, social media, and information in shaping consumer behavior during crises is brought to the forefront by authors like Islam et al. (2021), emphasizing the pivotal role these factors play in amplifying panic buying tendencies and disseminating misinformation. This comprehensive literature review sets the stage for our detailed exploration, leveraging NVivo software to unravel the intricate threads of consumer behavior in times of uncertainty.

#### **Panic Buying During Global Crises**

During COVID-19, panic buying comes to the forefront, unveiling its own prevalence and far-reaching implications. Studies conducted during this time revealed that the perception of scarcity, the fear of limited supply, and intolerance of uncertainty were prominent triggers of panic buying (Yuen et al., 2020). In response to the pandemic, consumers engaged in panic buying of a wide array of items, including food, toiletries, cleaning products, prescription medicines, and more (Taylor, 2021). It became evident that the phenomenon of panic buying transcends specific product categories, with individuals hoarding various commodities (Xie et al., 2022).

Moreover, the pivotal role of psychological factors, such as stress, anxiety, and perceived scarcity, was prominently highlighted during the pandemic, profoundly influencing consumer behavior (Galoni et al., 2020). It is essential to note, however, that not all psychological factors inevitably lead to panic buying, and in some cases, they may even have contradictory effects (Lins & Aquino, 2020).

#### **Problems Associated and How to Manage Panic Buying**

Examining the problems associated with panic buying reveals significant societal challenges. Panic buying can lead to actual shortages, increased infection risks due to crowded stores, heightened public anxiety, and ineffective messaging from community leaders. To manage panic buying, strategies include retailers carrying extra stock, but this can also lead to profiteering. Media announcements and community leader messages promoting cooperation and consequences of hoarding can discourage panic buying. Public education and avoiding stores during peak panic buying periods are also recommended strategies.

#### **Consumer Investment Behavior**

Investment decisions made by individuals are complex processes influenced by a multitude of factors. This comprehensive understanding of investment behavior is crucial for investors and financial professionals alike. Here, we explore the various dimensions that shape consumer investment choices, ranging from financial planning and personality traits to cognitive processing and external market conditions.

#### Financial Planning: The Bedrock of Investment

At the core of investment behavior lies financial planning, a fundamental concept involving efficient preparation for future financial needs. This readiness is typically evaluated through measurements derived from existing literature. These metrics assess an individual's financial position, their confidence in making prudent financial choices, their

savings and investment habits, and their financial literacy. All of these elements converge to shape their investment decisions.

#### The Influence of Individual Characteristics

Research reveals that financial decisions are not solely dictated by one's financial circumstances; they are profoundly influenced by individual characteristics. Personality traits, for example, play a significant role in consumer vulnerability, impacting concerns related to health, social interactions, career prospects, and existential matters. These psychological traits add a nuanced layer to financial decision-making, highlighting the intricate nature of investment behavior.

#### **Cognitive Processing and Decision-Making Styles**

Cognitive processing capacity is pivotal in decision-making, especially in the face of information overload. Individuals must navigate through a deluge of data to make informed investment choices. Here, decision-making styles become critical, serving as guides for consumer decisions in the complex marketplace. Psychological factors assume great significance in this context.

#### **External Factors: Market Conditions and Incidents**

External factors, such as market conditions and stock market incidents, wield substantial influence over investment decisions. Events like the COVID-19 pandemic have triggered global panic reactions and fear of trading losses, profoundly affecting market sentiment. Such incidents can lead to increased risk aversion, prompting investors to make decisions driven by emotions and panic, ultimately impacting stock returns.

#### **Emotional Finance: Unraveling the Impact of Emotions on Investment Decisions**

Emotional finance is a subfield of finance that explores the profound impact of human emotions on investment decisions. It delves into how positive and negative emotions can serve as motivators or de-motivators, shaping the decision-making processes of investors. In this domain, various emotional biases come into play, directly influencing investment choices or moderating other factors affecting these decisions.

#### The Role of Panic-Related Emotions in Investment

Emotional finance also investigates the influence of panic-related emotions on investment choices. Feelings of fear and anxiety can exert a significant sway over individuals' behavior in financial markets. Concepts like emotional contagion, where one person's emotional state influences similar behaviors in others, are examined, revealing ripple effects in group behavior. Emotional contagion can have both positive and negative repercussions on investor attitudes and group dynamics, ultimately impacting market dynamics and outcomes. Emotional finance is a specialized branch that probes the profound impact of human emotions, including both positive and negative sentiments and panic-related feelings, on investment decisions and market behavior. It aims to shed light on how these emotions drive financial markets and shape the investment landscape, enriching our understanding of investment behavior.

In summary, investment behavior is a multifaceted interplay of financial planning, individual characteristics, cognitive processing, personality traits, external market conditions and emotional finance. A comprehensive grasp of these diverse aspects is essential to comprehend how individuals make investment decisions, particularly during times of uncertainty and crisis.

#### Theories related to Panic Buying

Examining the complicated phenomena of panic purchasing leads to a wide range of ideas, that methodically break down the fundamental principles guiding this nuanced behaviour. This thorough analysis clarifies a number of theoretical stances that support a complex comprehension of panic purchasing and its complex causes. Grounded Theory is known for its qualitative research methodology, which generates new theories by objectively analysing actual experiences, as Charmaz (2006) and Strauss & Corbin (1990) have shown. Within the framework of "The Panic Buying Behaviour of Consumers during the COVID-19 Pandemic," this theory utilises three fundamental psychological theories to shed light on various aspects of panic purchasing. According to Gray's (1977) Behavioural Inhibition System Theory, anxiety is caused by unpleasant stimulus, which is why people organise their life to stay away from events that make them feel anxious. According to Brehm and Brehm's (1981) Reactance Theory, people take action to protect and preserve their autonomy when they sense that their personal freedom is under danger. Expectancy Theory, first put out by Reiss (1991), examines health anxiety and perceived vulnerability in the context of panic purchasing. It contends that fear and heightened sensitivity to possible threats prompt people to take action in order to avoid upsetting stimuli. Using fear as a pillar, Rogers' (1975) Protection Motivation Theory analyses how attitudes and beliefs influence behavioural reactions to health-threatening situations. This includes threat and coping assessments.

The Technology Acceptance Model (TAM), as introduced by Davis (1989) in "Consumers Going Online for Big-Box Retailers," examines the elements that impact customers' acceptance of new technologies, emphasising perceived ease of use, utility, and pleasure. According to Baumeister and Leary (2017), attachment theory emphasises the importance of good relationships for cognitive well-being by highlighting the fundamental human urge for belonging and forging strong social ties. Reckwitz (2002) introduced Social Practice Theory (SPT), which views people as bearers of social practices and is examined in "Customers' Social Interactions and Panic Buying Behaviour." The Social Influence Theory (SIT), first presented by Kelman in 1958, explores the ways in which referent persons affect attitudes, beliefs, and behaviours by means of identification, internalisation, and compliance. According to Armon-Jones' (1986) Social Construction Theory, knowledge is created by interpersonal interactions. In "Determinants of Stock Market Investors' Behaviour in COVID-19," the Herding Effect and Market Forces are discussed. The former deals with investors imitating their peers, while the latter influences investment choice. Terror Management Theory examines the psychological tension between the consciousness of one's own death and the want to save oneself, as investigated by Harmon-Jones et al. (1997). The internet's influence on the development of a global risk society is examined in Beck's (1993) Risk Society Theory. Tett et al. (2013) looked at the theory of trait activation, which investigates how environmental cues and an individual's ingrained qualities interact to shape behaviour. According to Paulhus & Williams (2002), the Dark Triad Traits—narcissism, Machiavellianism, and psychopathy—indicate self-indulgence, dishonesty, and a disrespect for the rights of others as motivators of behaviour. This broad theoretical framework provides the basis for our detailed investigation of consumer buying behaviour under crisis situations, using NVivo Software to conduct a thorough qualitative study.

#### Variables extracted from the study

In order to gain a comprehensive understanding of the variables used for measuring panic buying across various research papers, we have compiled the following information in a concise table for easy reference. This table provides a succinct summary of the variables explored in each research paper, offering a quick reference guide to the key aspects considered when measuring panic buying.

Research Paper Name	Variables Measured	
Anxiety, depression, and stress	Age, gender, level of education, income, employment status	
Consumer impulse buying behavior	Gender, age, monthly living expenses	
Consumer panic buying Understanding	Various psychological and demographic variables	
Consumers going online for big-box retailers	Psychological feelings of being alone	
Customers_ social interactions and	Social media usage, shared information, grocery	
panic buying behavior	Spending	

#### Scales used for measurement of the variables

This table provides an overview of each scale and the specific variables or behaviors they measure:

Scale	Description	Variables Measured		
Risk Perception Scale	Risk perception	Risk perception $(\alpha \alpha t)$		
Temporal Focus Scale	Temporal focus	Temporal focus		
LOT-R (Life-Orientation Test	LOT-R (Life-Orientation			
Revised) Scale	Test Revised)	Life orientation (Optimism)		
Need for Cognition (NFC) Scale	Cognition	Need for cognition		
Panic Buying (PB) Scale	Panic buying	Panic buying		
Fear Scale	Fear	Fear of COVID-19 (perceived threat)		
Phobia Scale	Phobia	COVID-19 Phobia		
Personality Traits Scale	Personality	Personality traits		
		Degree of increased purchasing due to COVID-19		
Over-Purchasing Scale	Over-purchasing	pandemic		
Anxiety Scale Anxiety Anxiety level		Anxiety level		
Perceived Stress Scale Perceived stress Perceived stress level		Perceived stress level		
Perceived Scarcity Scale Scarcity Perceived scarcity due to panic buying		Perceived scarcity due to panic buying		
Psychographics Scale Psychographics Psychographics (variate		Psychographics (variable measurements)		
Impulsive Buying Scale Impulsive buying		Impulsiveness		
Price Consciousness Scale	Price-related	Price-consciousness		
Conformity Scale	Conformity	Conformity in social relationships		
		Guilt related to purchases that cannot be logically		
Guilt Scale	Guilt	justified		
Demographics Scale	Demographics	Age, gender, education level, number of children, number		

		of family members, household income,		
		Stress related to life events creating psychological		
Stress Scale	Stress	disequilibrium		
Uncertainty Scale	Uncertainty	Adaptability in uncertain situations		
		Money-related attitudes (power-prestige, retention time,		
Money Attitude Scale	Money-related attitude	distrust, quality, anxiety)		
Awareness Scale	Awareness	Awareness related to COVID-19 in the Middle East		
		Compulsive buying behavior (urge to buy, guilt after		
Compulsive Buying Scale	Compulsive buying	buying, buying unnecessary items)		
Financial Planning Scale	Financial planning	Financial planning behavior		

Methodology

A table summarizing the methods and references related to graphs and statistics in various research papers. Below is the table with the requested information:

Research Paper Title	Methodology Description	Reference Coded	Coverage Percentage
Analysis of the influence of government behavior on sudden panic buying behavior based on ABM model	Graphs - Various types of graphic representation	Reference 1	0.22%
Customers' social interactions and panic buying behavior: Insights from social media practices	Thematic Analysis - Analysis of results by thematic analysis	Reference 1	0.05%
Consumer collecting behaviour: A systematic review and future research agenda	Tables - Tables related to various statistical results	Reference 1	1.45%
Consumer panic buying: Understanding the behavioral and psychological aspects	Tables - Tables related to panic buying behavior	Reference 1	0.71%
Measuring a panic buying behavior: the role of awareness, demographic factors, development, and verification	Tables - Demographic factors and associations with panic buying behavior	Reference 1	0.09%
Personality traits, money attitudes and consumer decision-making styles as predictors of investment products choice in South Africa	Tables - Measurement model	Reference 1	0.01%
Understanding and managing pandemic-related panic buying	Diagrams - Diagrams related to panic buying research	Reference 1	0.04%
Consumer panic buying: Tables related to snowball effects	Tables - Table related to snowball effects of panic buying	-	-
Antecedents of materialism and compulsive buying: A life course study in Australia	Descriptive Statistics - Descriptive statistics	Reference 1	0.04%
Anxiety, depression, and stress: Can mental health variables predict panic buying?	Descriptive Statistics - Data collection and statistics	Reference 1	0.36%
Emotions and stock market anomalies: A systematic review	Statistics - Research question and type of analysis	Reference 1	0.03%
Impact of COVID-19 pandemic on household financial decisions: A consumer vulnerability perspective	Descriptive Statistics -	Reference 1	0.01%
Measuring a panic buying behavior: the role of awareness, demographic factors, development, and verification	Descriptive Statistics - Demographic statistics	Reference 2	0.17%
Pandemic buying: Testing a psychological model of overpurchasing and panic buying using data from the United Kingdom and the Republic of Ireland during the early phase of the COVID-19 pandemic	Descriptive Statistics - Descriptive statistics	Reference 1	0.05%
Consumers going online for big-box retailers: Exploring the role of feeling disconnected during a pandemic	PLS-SEM - Partial least squares structural equation modeling analysis	Reference 1	0.03%
Exploring market overreaction, investors' sentiments and investment decisions in an emerging stock market	SPSS - Statistical analysis using SPSS	Reference 1	0.03%
Personality traits, money attitudes and consumer decision-making styles as predictors of investment products choice in South Africa	SPSS and Cluster Analysis - Two-step SEM analysis, cluster analysis	Reference 1,	2.61%
The panic buying behavior of consumers during the COVID-19 pandemic: Examining the influences of uncertainty, perceptions of severity, perceptions of scarcity, and anxiety	PLS-SEM - Partial least squares structural equation modeling analysis	Reference 1	0.08%
Common method bias and non-response bias process	Common Method Bias Assessment - Assessing common method bias and non-response bias	Reference 1	0.02%
Determinants of Stock Market Investors' Behavior in COVID-19: A Study on the Pakistan Stock Exchange	Cronbach Alpha, Factor Loading, Composite Reliability - Reliability and factor analysis	Reference 1	0.03%
Personality traits, money attitudes and consumer decision-making styles as predictors of investment products choice in South Africa	Cronbach Alpha - Measuring the reliability of constructs	Reference 1,	0.10%

#### **NVivo**

Nvivo is a software tool developed by OSR International for data analysis. It proves to be particularly valuable in expediting time-consuming tasks like transcription while enhancing the accuracy of data analysis. This software operates by generating various codes and identifying patterns within datasets, thereby assisting in the primary objective of uncovering the determinants of Panic Buying.

Nvivo offers several versions, with this study specifically utilizing version 14. It serves as a data management method, aiding in the identification of various themes embedded within datasets, as evidenced by multiple studies (Guo,2019; Tariq et al., 2020).

#### Findings of the study:

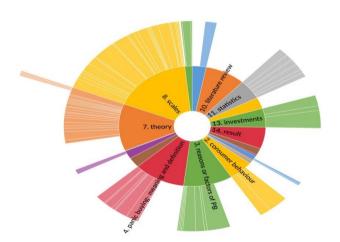
In line with the preceding discussion, this research employed content analysis through the Nvivo program to unveil its findings. The examination of the data involved various techniques, including word tree text searching, word cloud analysis of coded content, and the creation of idea models. For instance, the presented figure illustrates the word tree generated by a text search query for the terms "panic buying" and "scales." This function is utilized to pinpoint specific words and phrases within the study, as demonstrated by Guo (2019). The query output reveals multiple branches on both sides of the search query. Clicking on any branch prompts NVivo to highlight the entire path it represents. To illustrate, the phrase "people's tendency to engage in" is marked by the yellow arrow on the left side of the figure, leading to the subsequent behavior (connected by another yellow arrow). Similarly, other pathways, such as literature on individual factors during panic buying, uncovered fundamental aspects (connected by branched red arrows). This approach aided in identifying related factors, including phrases such as "perceived inability to tolerate distress," "panic," "anxiety," and "depression," thereby assisting the author in exploring various facets of panic buying.



## Text Search Query - Results Preview.pdf

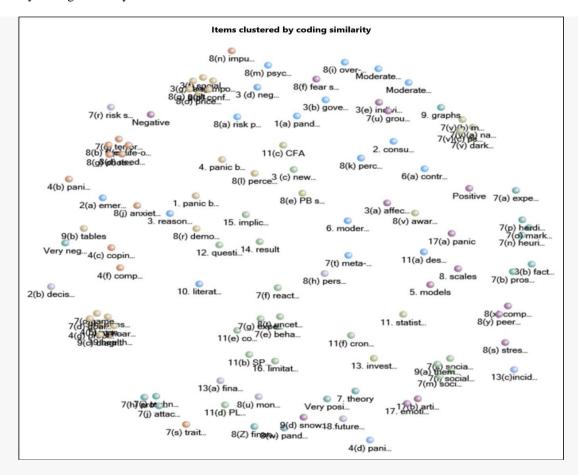
#### Hierarchy chart

Hierarchy charts in NVivo are dynamic, and you can expand or collapse nodes to view or hide subcategories. They provide a visual overview of how your data is structured and how different components of your project are interconnected. By using hierarchy charts, NVivo users can easily navigate their projects, track coding progress, and visualize the relationships between different elements. This visual representation aids in the qualitative analysis process, making it easier to identify patterns, themes, and insights within the data. The sunburst chart is a radial diagram featuring multiple hierarchical levels. In this chart, the innermost circle signifies the highest level of the hierarchy. When applied to the selected data, the sunburst chart visually illustrates the diverse factors influencing panic buying.



#### Items clustered by coding similarity

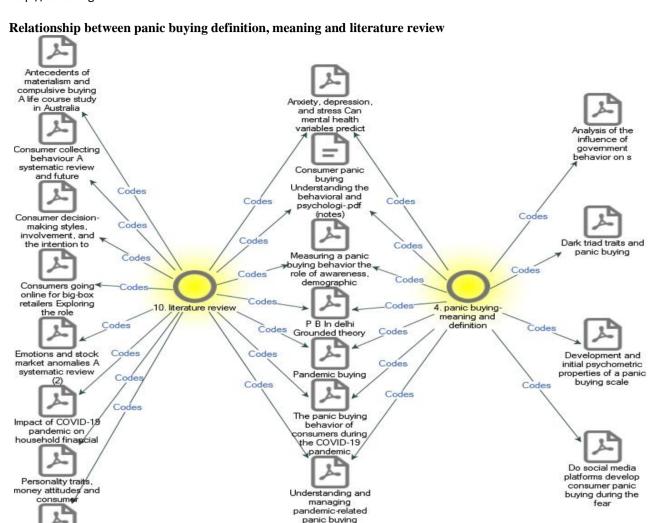
"Items clustered by coding similarity" function in NVivo is a feature that helps qualitative researchers analyses and explore their data by identifying patterns of similarity in coded segments of text. This function is useful for discovering connections and relationships between different parts of your qualitative data. When you code your qualitative data in NVivo, you assign specific codes (or thematic labels) to different segments of text within your sources. These codes represent themes, topics, or concepts in your data. The "Items clustered by coding similarity" function focuses on the coding itself and how similar or related codes are to each other based on the segments they are applied to items clustered by coding similarity.



#### **Word Cloud**

NVivo may generate word clouds for each cluster, highlighting frequently occurring words or phrases. This helps you quickly grasp the main topics within each cluster. A "Word Cloud" is a graphical depiction of text information where words are exhibited in different sizes, with the size of each word reflecting its occurrence or significance within a specific body of text.





#### Results from the study:

Within the context of consumer behaviour during the COVID-19 pandemic, a great deal of study has been done to examine panic purchasing behaviours and identify the many psychological processes and elements that contribute to this occurrence. These studies provide a detailed analysis of consumer behaviour during times of crisis, extending beyond a fundamental comprehension of the causes and effects of panic purchasing. Among the results of note is the substantial impact of government initiatives, whereby efforts like debunking rumours and distributing relief goods are negatively associated with the propensity of consumers to engage in panic purchasing. In the face of uncertainty, these acts promote logical decision-making and trust. Anxiety and impulsivity are psychological features that have been linked to panic purchasing; demographic characteristics like age and gender also play a significant role in identifying those who are more likely to engage in this behaviour.

The understanding of panic purchasing is further complicated by social interactions and herding behaviour. People imitating one other's behaviour when faced with worry, competitiveness, and shortage makes the phenomena more pronounced. Moreover, an intriguing connection between panic purchasing and the dark triad characteristics of psychopathy, Machiavellianism, and narcissism has been shown. While panic purchasing is less common among narcissists, it is more common among machiavellianists and psychopaths.

Finding connections between panic purchasing, risk perception, and socioeconomic class has been made possible in large part by the creation of a panic buying scale. Remarkably, research suggests that while males experience less anxiety, they are more likely to participate in panic purchasing, suggesting that there are different motivations for this behaviour in men and women. Furthermore, psychological variables like stress and family income have a big impact on the tendency to panic purchase. Social media platforms have significantly contributed to the surge in panic purchasing during times of crisis by means of processes such as social proof and persuasion from close relationships.

Financial behaviour and investment decisions are significantly influenced by personality characteristics and attitudes towards money. Decisions in these areas are influenced by extraversion, conscientiousness, openness to experience, and

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attitudes towards money. Lastly, a variety of psychological elements, such as feelings of shortage, worry, uncertainty, and harshness, are important predisposers to panic buying. The association between these variables and panic purchasing is mediated by anxiety. The two main causes of panic buying are the expectation of future earnings and personal benefits and excessive spending motivated by fear and self-defense. Combined, these results provide a thorough grasp of the complex nature of panic purchasing during the pandemic, using NVivo Software to provide a detailed qualitative study.

#### Implications of the study

The implications of panic buying behavior in normal times suggest the need for a comprehensive understanding of its underlying mechanisms, the importance of effective communication to reduce anxiety, and the role of social influences and personality traits in shaping consumer responses. Policymakers, retailers, and marketers can use these insights to develop strategies that promote responsible consumer behavior and stability in the marketplace during periods of heightened uncertainty or crisis. So following are the implications derived on panic buying behavior in normal times,

#### 1. Understanding Panic Buying Mechanisms

Nakano et al., (2022) emphasizes the importance of understanding the mechanisms behind panic buying. This understanding can have far-reaching implications for various stakeholders, including policymakers, retailers, and healthcare professionals. It suggests that identifying the triggers and psychological processes behind panic buying can lead to more effective interventions.

#### 2. Policy Interventions and Anxiety

This study points out that policy interventions can trigger anxiety-driven panic buying in the immediate aftermath of disasters. However, it also suggests that subsequent hoarding may occur without anxiety. Policymakers should be cautious about implementing measures that do not excessively heighten consumer anxiety. Retailers can prevent supply-side shortages by placing a limit for individual consumer about quantity purchased.

#### 3. Social Influence on Panic Buying

Naeem & Ozuem (2021) highlight the role of social factors and social media in influencing panic buying behavior. This implies that marketers and policymakers should consider the impact of social interactions and online communication in shaping consumer behavior during crises.

#### 4. Psychological Factors and Anxiety Mediation

Lins & Aquino (2020) discusses the mediating role of anxiety in panic buying behavior. This suggests that addressing psychological factors that induce anxiety can help mitigate panic buying. Marketers and policymakers can provide constructive information to reduce perceived anxiety during crises.

#### 5. Role of Uncertainty

Omar et al. (2021) underscores the significance of uncertainty in inducing anxiety and panic buying, highlighting its greater role compared to perceived scarcity. Policymakers are encouraged to take steps to reduce negative emotions like uncertainty and perceived scarcity through effective information sharing and communication strategies.

#### **6.** Personality Traits and Consumer Appeals

Ngcamu et al. (2023) provide insights into targeting specific personality traits for marketing and financial advising. Understanding consumer personality traits can help tailor appeals and strategies for different segments of the population.

#### Limitations

Research on panic buying behavior during the COVID-19 pandemic faces several practical limitations that warrant consideration. Firstly, there's a notable lack of exploration into how personality traits influence panic buying, potentially overlooking their impact on this phenomenon. Furthermore, the neglect of psychological factors, despite their acknowledged importance, remains relatively unexplored in the existing research, implying that these factors may not receive adequate attention in understanding and predicting panic buying behavior. The need for future research in this area underscores a gap in the current literature, suggesting that the full spectrum of relevant factors contributing to panic buying may not yet be comprehensively addressed. Generalizability is a key concern, as the studies referenced may not encompass diverse populations or cultural contexts, potentially limiting the applicability of findings to various demographic groups and regions. Data collection constraints, stemming from the unpredictability of crisis events and ethical challenges associated with conducting research during such periods, could affect the depth and breadth of insights gained. Temporal relevance is also critical, as panic buying behavior may evolve over time in response to changing circumstances, necessitating careful consideration of the timing of research studies. Access to accurate and comprehensive data on panic buying incidents during the pandemic may be limited, posing challenges for researchers and potentially impacting the accuracy and robustness of their findings. Lastly, ethical constraints related to the potential exploitation of vulnerable populations in crisis situations may limit the scope and methodology of studies in this field. In summary, the practical limitations in researching panic buying behavior during the pandemic time period encompass gaps in understanding personality traits and psychological factors, the imperative for future research, potential issues with generalizability, data collection hurdles, temporal relevance considerations, data availability

constraints, and ethical considerations. Researchers should remain cognizant of these limitations when designing and conducting studies in this domain.

#### **Future research**

In the area of panic buying behavior, future research holds several promising avenues for academicians to explore. Building on existing literature, there are key areas that warrant further investigation. Firstly, it is essential to delve deeper into the impact of personality traits on the antecedents of money attitudes, information processing, and investment decisions, as indicated by Eastman et al. (2021). This could involve extensive studies aimed at understanding how individual personality traits influence the propensity for panic buying during crisis situations, thus providing valuable insights for policymakers and marketers. Secondly, the role of various psychological factors like mood congruency, distress, fear, emotional aspect and stress in driving panic purchasing behavior should be a focal point for future research. Given the limited coverage in the current literature, comprehensive investigations into these factors and their interplay with personality traits and external circumstances can shed light on the underlying mechanisms of panic buying, facilitating a more holistic understanding of this phenomenon.

Additionally, researchers should consider conducting cross-cultural studies to enhance the generalizability of findings. Different demographic groups and regions may exhibit varying responses to panic buying triggers, necessitating a broader scope of investigation to capture diverse perspectives and behaviors.

As the COVID-19 pandemic continues to evolve, longitudinal research tracking panic buying behavior over time can provide valuable insights into how this phenomenon adapts to changing circumstances. Temporal relevance is crucial, and future studies should aim to keep pace with the evolving nature of crises and their impact on consumer behavior.

Furthermore, efforts should be made to address data availability challenges and ethical considerations when researching panic buying during crises. Academicians should explore innovative methodologies and collaborate with relevant stakeholders to obtain accurate and real-time data while upholding ethical standards.

In conclusion, future research in the field of panic buying behavior should focus on personality traits, psychological factors, cross-cultural comparisons, longitudinal analysis, data acquisition, and ethical considerations. By pursuing these avenues, future academicians can contribute to a more comprehensive understanding of panic buying during crises, aiding in the development of effective strategies to manage and mitigate such behavior.

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