FLORIDA INTERNATIONAL UNIVERSITY

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WHAT ARE THE FACTORS THAT CONTRIBUTE TO PUBLIC SATISFACTION WITH GOVERNMENT ASSISTANCE SERVICES AND SUPPORT AFTER WEATHER-RELATED NATURAL DISASTER?

A dissertation submitted in partial fulfillment of

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by

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To: Dean William G. Hardin
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This dissertation, written by Grace O. Odediran, and entitled "What are the Factors that Contribute to Public Satisfaction with Government Assistance Services and Support after Weather-Related Natural Disasters? having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

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DEDICATION

To Oluwajoba and Matthew Odediran. We did it! And to my parents, Timothy, and Folasade Oyatunde for passing on their love of learning.

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And whatever you do, whether in word or deed, do it all in the name of the Lord Jesus, giving thanks to God the Father through him. (Colossians 3:17)**.** I give God all the glory for the strength, the grace and the opportunity to do a DBA.

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ABSTRACT OF THE DISSERTATION

WHAT ARE THE FACTORS THAT CONTRIBUTE TO PUBLIC SATISFACTION WITH GOVERNMENT ASSISTANCE SERVICES AND SUPPORT AFTER WEATHER-RELATED NATURAL DISASTER?

by

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This dissertation explored factors contributing to individual satisfaction with government assistance services following weather-related natural disasters in the United States. In recent years, there has been an increase in the frequency and severity of hurricanes and disasters. Understanding the needs, perception, and public satisfaction with services and support provided can help develop more effective disaster recovery plans and programs and effective disaster management and recovery planning. This study drew on procedural justice theory and expectancy-disconfirmation theory to examine key determinants of public satisfaction, including assurance, reliability, procedural justice, community preparedness, and disaster severity.

A primarily quantitative survey with structured rating scale response was employed, using survey data collected from individuals who have experienced natural disasters in the past decade. Partial least squares structural equation

modeling was used to analyze relationships between various independent variables and public satisfaction. The findings indicated that assurance, procedural justice, and reliability are significant predictors of public satisfaction, whereas community preparedness and disaster severity had a limited influence.

The results provide insights into the necessity for transparent communication, fairness in decision-making, consistent service delivery, and their pivotal role in shaping public perceptions of government disaster response efforts. The study's findings have both theoretical and practical implications. The results provide actionable insights for policymakers and emergency response agencies to enhance service reliability, ensure equitable resource distribution, and improve public trust in government assistance programs.

Future researchers should consider longitudinal studies to track changes in satisfaction levels over time and explore regional differences in disaster response effectiveness.

Keywords: disaster response, emergency management, expectancy-disconfirmation theory, government assistance, procedural justice, public satisfaction

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INTRODUCTION

Over the past 4 decades, weather-related natural disasters have increased in frequency and strength globally. In the United States, the increased weather-related natural disasters have caused significant human and economic loss. In the 1980s, there was an average of 3.3 weather-related disasters, compared to over 17 per year between 2014 and 2023. The financial impact of these disasters exceeded US$2.51 trillion, and they caused more than 16,768 deaths across the United States.

The high cost of recovery associated with an increasing number of disasters strains government resources. It necessitates streamlined strategies, more proactive preparedness, improved resilient infrastructure, and comprehensive strategies to reduce human and economic losses. Natural disasters, especially weather-related natural disasters, cause widespread destruction, and returning to normal life after the disaster can be a challenge for communities across the United States. For effective and efficient recovery, there is a need for governments to be proactive rather than reactive and understand the community's needs to ensure public satisfaction. Past studies on factors contributing to public satisfaction have highlighted the impact of local news on people's feelings toward recovery efforts, the effectiveness of disaster-related partnerships, and the provision of community behavioral health support (Veenema et al., 2017).

Understanding how to support or assist the local economy is vital to fostering community resilience, economic stability, and effective disaster preparedness. Research has highlighted how small business continuity impacts broader community recovery following events such as hurricanes (Marshall et al., 2015). Public perception of government assistance services after disasters is shaped by a combination of factors,

including community preparedness, disaster context, reliability of services, timeliness of response, fulfillment of expectations, assurance provided by officials, and public image of government entities. Distributive and procedural justice may also influence public satisfaction with government services and support. Cardwell and Cowan (2023) highlighted the distinction in public sentiment toward Federal Emergency Management Agency (FEMA) recovery efforts, highlighting that public trust and perceptions of fairness are essential to evaluating government assistance services.

Community engagement is a bidirectional platform for exchanging information between the government and residents to identify concerns, obtain suggestions for solutions, and gain feedback from residents on the effectiveness of current support and resources. Communities are often engaged through local organizations that facilitate access to government services to underserved populations, enhancing their satisfaction through culturally sensitive and localized support (Glik et al., 2014). Community-involved programs help align engagement initiatives with government services and build resilience and trust, improving the overall public perception of the government as a reliable actor during disasters. The public image of government and its response capabilities also interconnects with distributive justice—the fair allocation of resources—and procedural justice—the transparency and fairness of decision-making processes. Rubin and Barbee (2021) examined the role of transparent communication and equitable resource distribution in improving public confidence during disaster recovery. Their findings suggested that governments perceived as equitable and efficient in their disaster responses are more likely to garner public trust and favorable evaluations.

Disaster context and timeliness of response are central to managing expectations and building assurance. Research by Kapucu et al. (2010) highlighted that timely and reliable government actions during disasters significantly affect public perceptions of competence and reliability, reinforcing positive sentiments toward government efforts. These findings emphasize the importance of public satisfaction with government assistance services and underscore the relationship between factors contributing to public satisfaction, which play a role in building trust and ensuring positive disaster recovery outcomes.

Other factors influencing public satisfaction with government assistance services after a weather-related disaster in the United States include perceived equity and fairness of the aid distribution process, speed and efficiency of service delivery, adequacy and appropriateness of the resources provided, level of communication and information transparency from government agencies, and cultural sensitivity of the services offered. Higher levels of perceived fairness, swift service delivery, adequate resources, clear communication, and culturally sensitive services are positively correlated with higher public satisfaction with government disaster assistance. The aim of this study was to explore the diverse elements that contribute to public satisfaction with government services and support after a weather-related disaster and identify key strategies government entities can adopt and/or refine in providing services and support to communities after a weather-related disaster by examining and measuring specific factors.

Problem Statement

Disaster recovery is a complex process influenced by various social, institutional, and environmental factors (Rumbach et al., 2016). Among these, location is particularly

critical, as it underpins the development of social capital and community resilience, both of which are essential for effective disaster recovery (Cox & Perry, 2011). Successful recovery efforts require close collaboration between government agencies and the voluntary sector. In addition to services and support provided by government agencies such as FEMA, nonprofit organizations provide much-needed support at the grassroots level to fill in the gap and avail overall disaster relief provisions (O'Donovan, 2015).

Despite various initiatives, public satisfaction remains inconsistent. Providing a timely government response continues to be a challenge. Research suggests that identifying and addressing the determinants of public satisfaction can inform the development of more effective reconstruction policies and practices (Ao et al., 2022). Using procedural justice theory and expectancy-disconfirmation theory, the study aims to identify key factors that influence public satisfaction by examining variables, such as community preparedness, disaster severity, expectation, assurance, reliability, procedural and distributive justice.

Significance of the Problem

Public trust, community resilience, and recovery success are significantly influenced by how well government programs work during emergencies. The primary responsibility of the government is to provide for and protect the community it serves, especially in times of crisis. A better understanding of the drivers of public satisfaction can enable authorities to improve their disaster response plans. Agencies can tailor services to address better the needs of communities affected by disasters by recognizing the factors influencing how people perceive government assistance (Cariveau et al.,

2021). Evidence-based disaster recovery and emergency preparedness strategies can be developed with input from public satisfaction surveys.

Policymakers can use the findings of this study to create programs that consider community goals and concerns. For example, by acknowledging that enhancing disaster management policy requires good communication and stakeholder interaction, community-centered recovery programs can be developed (Lindell & Perry, 2012). Government agencies need the correct information to determine community needs and priorities, and this information can ensure a focused and effective response by focusing on the elements that affect public satisfaction and allocating funds to areas critical to recovery, such as housing, healthcare, and financial help. According to Waugh and Streib (2006), good use of resources can significantly improve the public opinion of the government's success during emergencies.

A key component of community resilience is individual satisfaction with government assistance services. According to Norris et al. (2008), communities with higher satisfaction levels recover faster and show stronger resilience to future disasters. Increasing satisfaction promotes a sense of preparation and togetherness and aids in recovery. The success of disaster response initiatives is directly related to public confidence in government institutions. The long-term well-being of society depends on the government acting with trust and ensuring efficient and equal distribution of help. According to Lee and Kim (2021), gaining public confidence during and after disasters requires government agencies to exhibit openness and responsibility. Understanding the different factors influencing public satisfaction can help government agencies improve community services and promote resilience and long-term recovery.

Research Gap

Disasters significantly impact public opinion of government services, especially in the years after hurricanes in the United States. Critical elements of disaster recovery and public opinions on government performance have been examined, with some scholars highlighting the role of local news sentiment in shaping public perceptions of recovery efforts (Cardwell & Cowan, 2023). Others have noted that social capital fosters community resilience during disasters (Wang & Ganapati, 2017) and trust in government post-disaster influences public satisfaction (Nicholls & Picou, 2012).

Many of these studies have provided valuable insights; however, a considerable gap exists in comprehending the multifaceted factors contributing to individual satisfaction with government services following a weather-related disaster. Specifically, research focusing on variables, such as response time, equitable aid distribution, effective communication strategies, quality of experiences, alternative community support mechanisms, preparedness measures, and community resilience initiatives, collectively influence public perceptions of government performance during crises is limited.

The aim of this research was to understand better the influence of these interrelated factors on public satisfaction with government services. By focusing on recovery efforts after weather-related natural disasters and where such events have recurrent and severe impacts, this study highlighted how the timeliness of government aid influences satisfaction levels and how clear and transparent communication fosters trust and satisfaction. The study also revealed the interplay between government efforts and community-based or nonprofit support during recovery, how pre-disaster readiness

initiatives shape perceptions of post-disaster government performance, and the influence of collective resilience-building efforts on satisfaction with recovery efforts.

This research provides actionable insights to policymakers, emergency responders, and community leaders. Through a comprehensive analysis, complex factors contributing to public satisfaction were explored; the findings may inform policy decisions, help refine disaster response strategies and augment the effectiveness of governmental measures in reducing the effects of disaster catastrophes. This collaborative approach can contribute to building more resilient and responsive systems that prioritize the well-being of citizens in the aftermath of disasters.

Research Question

The aim of this exploratory research was to understand better the impact of various factors on public satisfaction with government services and support after a weather-related disaster and enhance the current understanding of how these factors interact to affect public satisfaction. The research question for this study was as follows:

> What are the factors that contribute to public satisfaction with government assistance services and support after weather-related natural disasters?

The researcher aimed to understand factors that contribute to public satisfaction. These factors have been shown to be vital to successful disaster recovery, and because most of them have been considered in past recovery efforts, there is a need to adopt novel strategies and be more proactive in planning and decision-making. This approach requires identifying the principal variables and proactively using them as the basis for developing policies and programs more tailored to the needs of residents. Proactive programs and policies will help government entities meet the communities' needs and expectations,

increasing public satisfaction with government services and support after weather-related natural disasters.

Research Contributions

The research question, "What are the factors that contribute to public satisfaction with government assistance services and support after a weather-related natural disaster?" addressed a critical gap in understanding the determinants of public satisfaction with government assistance services and support in post-disaster situations. This study built on the many findings by previous scholars by focusing on the unique dynamics of public satisfaction in post-weather-related disaster contexts, where timely aid distribution, effective communication strategies, and perceived fairness of assistance are critical. By synthesizing insights from existing literature and applying them to the specific challenges posed by weather-related disasters, the researcher sought to identify and analyze the key factors influencing public satisfaction with government assistance services post-weather-related disasters. Other goals were to develop a holistic framework for understanding satisfaction levels in support of disaster recovery efforts and provide actionable recommendations for policymakers and disaster response teams to enhance service delivery and build public trust. By addressing these objectives, this research contributes to the academic discourse on public satisfaction and disaster management while offering practical insights for improving government responses to natural disasters.

BACKGROUND LITERATURE REVIEW AND THEORY

This research focused on key factors influencing public satisfaction with government services and support following a weather-related natural disaster. This section involves a review of relevant literature to provide a foundation for the current study. The key terms used to search for the literature included public satisfaction, disaster response, public services, government services, natural disaster management, community preparedness, disaster recovery, and public perception. The words contributes and influence are used interchangeably in this study.

Chamlee-Wright et al. (2013) studied citizens' expectations of what the government should do and what policies government officials should pursue to influence their decisions. After a disaster, the affected citizens' perceptions of the government's intent and capacity to assist in rebuilding will influence the rebuilding strategies they adopt. Chamlee-Wright et al. developed a typology categorizing citizens' expectations of government response to the disaster and deployed it to identify expectation patterns among the public and other private actors in New Orleans' Ninth Ward communities who returned following Katrina and explain how these expectations shaped their preferred rebuilding strategy.

Jordan (2015) created an extensive disaster relief experience using Maslow's (1943) hierarchy of needs. It consists of basic needs, such as water, food, and shelter, and complex needs, such as higher recovery and growth. It is important to understand that disaster survivors' needs may not follow rewards and subconscious desires; rather, they focus on satisfying specific needs in the hierarchy.

Ainehvand et al. (2019) conducted a qualitative study to identify challenges in food security response following natural disasters in Iran. The conducted semistructured interviews with 29 key participants and analyzed the data using qualitative content analysis. The findings indicated three main themes: (a) underlying challenges, (b) process and resource management challenges, and (c) organizing and coordinating challenges. Management challenges and lack of coordination and organization among stakeholders were serious issues, which were exacerbated by climate change and unsustainable living conditions of vulnerable people.

Liu et al. (2021) examined the cultural and methodological factors that influence the government performance-trust link. After analyzing 72 studies, they found that the link is more potent in low power distance countries when using output measures and focusing on local government. The link remained true regardless of whether performance data were subjective or objective or whether the reviewed studies focused on the government as a whole or specific agencies. Their findings highlighted the need for more culturally sensitive and scientifically rigorous approaches to studying trust in government.

Community Preparedness

Bogdan et al. (2024) described community preparedness as a practical approach to reducing the impact of weather-related disasters and ensuring the government can seamlessly respond to weather-related disasters. Preparedness for weather-related disasters refers to activities and measures taken before an event to ensure the efficiency of a given community (Haque & Hostetler, 2021). Uddin et al. (2022) noted that communities with well-articulated preparedness measures will experience smooth recovery and have higher satisfaction with government services. Education campaigns

and support efforts are important to ensure the people within a particular society or community understand appropriate measures to take in case of disasters (Fu & Zhang, 2024). Sanderson et al. (2025) described that government involvement through educational programs positively affects the level of public confidence and disaster management outcomes. The communities that feel well-equipped have high satisfaction with the services delivered by the government because they know how the system works and do not misuse the resources (Lejano et al., 2021). The public tends to feel more satisfied with the government when there is pre-disaster preparation to build confidence in managing disasters (Fazeli et al., 2024).

Disaster Situation

The level of public satisfaction is directly proportional to the severity of the disaster because when the level of destruction is high, governments are often overwhelmed (Chen et al., 2021). According to Wheeler et al. (2022), severe disasters that affect thousands of people require different levels of government response compared to small-scale disasters, leading to disparities in public perception of equity and efficiency. Rivera (2022) argued that marginalized populations, especially those with limited resources, are highly likely to be dissatisfied with disaster assistance services. Health and other socioeconomic and geographical factors affect the capability of the community to cope with disasters, affecting the effectiveness of the government's actions (Anshuka et al., 2021). Targeted policy interventions can be adopted to address the vulnerability experienced by various population groups, influencing public satisfaction with government assistance programs (Liu et al., 2021). Liu et al. (2021) described that an individual's level of satisfaction with government efforts in addressing natural

disasters is influenced by the severity of the impact of the disaster on their lives. The ability of a government to cope with weather disasters significantly influences public perception and satisfaction levels (Valdivieso et al., 2021).

Assurance and Reliability

According to Zinda et al. (2021), the sense of security individuals experience from the government during weather disasters influences their level of satisfaction. Krogh and Lo (2023) indicated that people value stable and reliable services during a crisis, especially from the government. The consistency of government communication and timely updates during disasters further enhances public trust and confidence in relief efforts.

Expectations

Public satisfaction depends on the effectiveness of government services delivered compared to the public's expectations (Nugroho et al., 2024). Studies have indicated that information regarding the community's expectations of government assistance during public disasters can help regulate public satisfaction (Liu et al., 2021; Nugroho et al., 2024). Clear and transparent communication about government capabilities and limitations plays a crucial role in shaping realistic public expectations and reducing dissatisfaction.

Response

The speed of disaster responses influences the public's view of the government's competency (Cvetković et al., 2020). The timeliness of response is another aspect that can also be used to rate the services provided during calamities (Al-Wathinani et al.,

2023). A swift government decision and response can help increase public trust and satisfaction with the government's disaster response initiatives (Nugroho et al., 2024).

Distributive Justice

According to Jafino et al. (2021), perceived fairness in allocating disaster relief resources significantly determines public satisfaction. Equitable distribution means that all individuals impacted by disaster management decisions can feel protected, irrespective of their socioeconomic status (Jiang & Ji, 2024). Lee and Kim (2021) revealed that public resentment begins in the community when the public believes that resources are unequal.

Procedural Justice

Accountability and equitability during decision-making processes can enhance confidence during disaster management (Crosweller & Tschakert, 2021). Adherence to established policies and the equitable handling of issues and concerns are key dimensions of ensuring justice in disaster response (Lillywhite & Wolbring, 2022). Previous studies revealed that satisfaction rises when people believe the government acts fairly and justly during disasters (Mizrahi et al., 2023; Perkiss et al., 2024). Justice perceptions can affect the overall evaluations of the disaster response, making it an important factor that influences satisfaction (Dolšak & Prakash, 2022; Yeo et al., 2021).

Government Image

When assessing government disaster assistance programs, the public considers its reputation to competently manage disasters (Bhagavathula et al., 2021; Modgil et al., 2022). Positive perception of the public is often informed by people's experiences regarding the government's success in managing similar disasters (Appleby-Arnold et al.,

2021; Trogrlić et al., 2021). Information sharing during disasters is crucial to prevent chaos and enhance positive public perception of the government (Fokaefs & Sapountzaki, 2021; Fuller et al., 2022). Mistakes or erroneous information can make the public lose confidence, contributing to their frustration with the disaster management process (Fekete & Sandholz, 2021). Well-established government communication guidelines help the affected communities feel involved and empowered during recovery (Marshall et al., 2015).

Studies have revealed that public satisfaction with government services in the post-disaster context is influenced by preparedness, response quality, equity, and communication effectiveness (Bogdan et al., 2024; Haque & Hostetler, 2021). Various scholars have also highlighted the importance of justice, accountability, and timeliness in enhancing people's trust in the government's efficiency in responding to disasters (Cvetković et al., 2020; Jafino et al., 2021; Nugroho et al., 2024). Despite the increasing frequency of weather-related disasters in the United States, there is limited research on the factors influencing citizens' satisfaction with the government's disaster response (Chen et al., 2021; Wheeler et al., 2022). In addition, most studies have not addressed these factors using procedural and distributive justice models to compare satisfaction across various communities (Jiang & Ji, 2024; Mizrahi et al., 2023; Perkiss et al., 2024).

Effective disaster recovery requires a collaboration among many people, state departments, agencies, and disaster recovery professionals. These collaborations and the information needed for effective and successful disaster recovery efforts are significant to the public in the aftermath of a weather-related natural disaster. The effectiveness of the collaboration is dependent on different factors, including community preparedness,

disaster situation, assurance, reliability, expectations, response, government image, distributive justice, and procedural justice.

The number of disasters in recent years has increased, with predictions indicating a rising trend. The aim of this study was to understand the factors contributing to efficiency, effectiveness, and improved and enhanced government services and assistance after a disaster. The general problem addressed in this study was the increasing public dissatisfaction with governments' support services after weather-related natural disasters. The specific problem addressed was the limited research on the factors that lead to public dissatisfaction with governments' response to weather-related natural disasters in the United States. Addressing this gap can help inform measures to enable practical government-led recovery efforts and improve people's trust in governmental institutions.

Conceptual Framework

The conceptual framework for this study was based on two theories. These are procedural justice theory and distributive justice theory. Procedural justice theory was established in the late 20th century by Tyler (1990). It originated from the expectancy-disconfirmation theory that emerged in the late 1970s (Oliver, 1980). Developed by Richard L. Oliver, expectancy-disconfirmation addresses consumer satisfaction. Procedural justice theory emphasizes fair processes and how an individual views fairness as firmly based on the quality of their experiences (Tyler, 1990). Per expectancy-disconfirmation theory, satisfaction is derived from comparing actual performance with initial expectations (Oliver, 1980).

Procedural justice theory has been applied in research contexts similar to the current study. Mengstie (2020) used procedural justice theory to explore the relationship

between perceived organizational justice and turnover intentions, noting that procedural justice influences satisfaction. Dawud et al. (2018) explained that people's perceptions of fairness within public institutions influence their satisfaction. Van Ryzin (2007) noted that the expectancy-disconfirmation model can be adopted to describe a causal process through which citizens perceive the quality of public services. Petrovsky et al. (2017) applied the expectancy-discrimination theory, highlighting that citizen expectations play a significant role in influencing their satisfaction with services from the government.

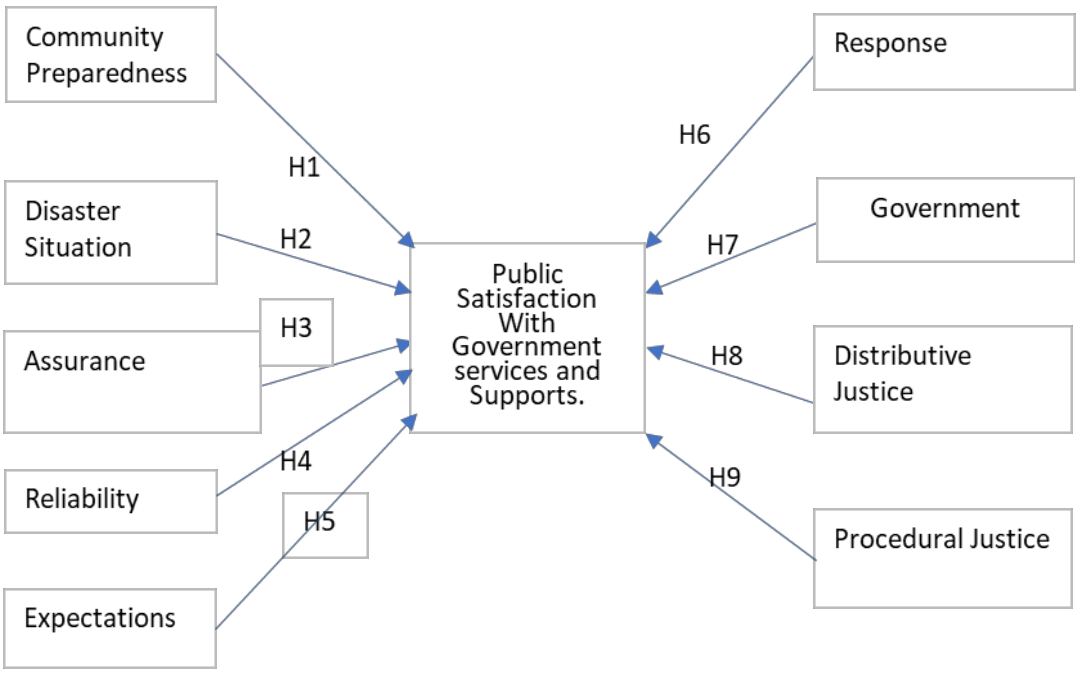
Procedural justice theory focuses on perceived fairness of the process used to make decisions or allocate resources. In contrast, distributive justice theory focuses on the perception of the ability of the government to be fair in the distribution of those resources themselves. Therefore, procedural justice is about "how" decisions are made, whereas distributive justice is about "what" the outcome of those decisions is.

RESEARCH DESIGN

A conceptual model was developed to illustrate the hypothesized variables in this study. The model in Figure 1 illustrates the hypothesized direct influence of eight constructs: community preparedness, disaster situation, assurance, reliability, expectation response, government image, procedural justice, and distributive justice and their effect on the dependent variable, public satisfaction. The model accounts for nine distinct hypotheses (see Figure 1).

Figure 1

The Conceptual Research Model



Note. Figure 1 illustrates the hypothesized relationships between key factors influencing public satisfaction with government disaster response services.

THEORETICAL DEVELOPMENT AND HYPOTHESES

The current research on public satisfaction with government services and support following weather-related disasters was grounded in two key theoretical perspectives: (a) procedural justice theory and (b) expectancy-disconfirmation theory. Procedural justice theory emphasizes the importance of fair and transparent decision-making processes in shaping public trust and satisfaction with government actions. Expectancy-disconfirmation theory addresses how discrepancies between expected and actual government performance influence individuals' overall satisfaction levels.

Procedural Justice Theory

Developed by Tyler (1990), procedural justice theory emphasizes the role of fair processes in shaping individuals' perceptions of fairness and satisfaction. It suggests that people evaluate their experiences based on their perceived fairness of the procedures used rather than just the outcomes. This theory is particularly relevant in disaster response, where transparent, inclusive, and equitable governmental procedures can influence public satisfaction.

Expectancy-Disconfirmation Theory

First introduced by Oliver (1980), expectancy-disconfirmation theory suggests satisfaction results from comparing actual experiences with past expectations. When government services meet or exceed public expectations, satisfaction increases; conversely, if services fall short, dissatisfaction arises. This theory helps assess how well government disaster responses align with public expectations.

Researchers have applied these theories in contexts relevant to this study. Mengstie (2020) found that procedural justice significantly impacts satisfaction by

influencing perceptions of fairness within organizations. Dawud et al. (2018) demonstrated that public perceptions of fairness in governmental institutions directly affect their satisfaction with services. Van Ryzin (2007) applied the expectancy-disconfirmation model to public services, showing how citizen expectations shape their perceptions of service quality. Petrovsky et al. (2017) indicated that citizen expectations strongly determine their satisfaction with government services, aligning with the expectancy-disconfirmation framework. Both theories provide a framework for understanding how procedural fairness and the alignment of expectations with actual service delivery impact public satisfaction.

Although the current study contributes to existing research by applying procedural justice theory and expectancy-disconfirmation theory to the context of disaster recovery, it also expands these frameworks in significant ways. Specifically, the study challenges the conventional understanding of how procedural justice influences satisfaction by highlighting the complex interplay between community preparedness, government image, and response efficiency. The findings refine the expectancy-disconfirmation framework by suggesting that satisfaction does not solely depend on the alignment of expectations and outcomes but is also deeply influenced by factors such as the perceived fairness of resource distribution and the transparency of government actions. This dual theoretical extension offers new insights into how public satisfaction can be enhanced during post-disaster recovery efforts, particularly considering recent challenges faced by disaster-affected communities.

Per procedural justice theory, transparent and equitable processes are important in disaster response. Expectancy-disconfirmation theory highlights the role of public

expectations in evaluating government performance. By integrating these perspectives, the researcher aimed to identify key factors influencing public satisfaction with post-disaster government services.

Community Preparedness

Many past studies support the premise that enhanced community preparedness correlates with increased public satisfaction with government catastrophe response. Bogdan et al. (2024) emphasized that preparedness mitigates the effects of weather-related disasters and improves the government's capacity for effective response. Haque and Hostetler (2021) characterized disaster preparedness as preemptive actions implemented before an incident to enhance a community's efficacy in managing crises. Uddin et al. (2022) asserted that communities with organized preparedness programs achieve more efficient recovery and express higher satisfaction with governmental services.

Educational and awareness initiatives are essential for community readiness. Fu and Zhang (2024) emphasized that educational initiatives facilitate community members' comprehension of appropriate emergency response protocols, resulting in more prepared communities. Similarly, Sanderson et al. (2025) contended that government-initiated instructional programs bolster public confidence and boost catastrophe management results. Lejano et al. (2021) asserted that well-equipped communities possess a superior comprehension of governmental institutions, resulting in responsible resource utilization and heightened service satisfaction. Fazeli et al. (2024) emphasized that public satisfaction is intricately linked to governmental preparedness before disasters, as it fosters trust in the efficacy of disaster management. They indicated that robust

community preparedness alleviates disaster effects and enhances public satisfaction with governmental response initiatives. Based on these findings, the researcher proposed the following hypothesis:

H1 - The higher the community preparedness, the higher the public satisfaction.

Disaster Situation

Chen et al. (2021) argued that as disaster severity increases, governments often become overwhelmed, which paradoxically can lead to increased public satisfaction due to heightened visibility of response efforts. Wheeler et al. (2022) noted that large-scale disasters affecting thousands of people demand more extensive governmental intervention than minor disasters, leading to variations in public perceptions of efficiency and fairness. However, disparities in satisfaction levels exist, particularly among marginalized communities. Rivera (2022) highlighted that populations with limited resources are more likely to be dissatisfied with government assistance, as their needs are often not fully met. Anshuka et al. (2021) further emphasized that socioeconomic and geographic factors influence a community's ability to cope with disasters, impacting the perceived effectiveness of government actions. To address these disparities, Liu et al. (2021) suggested that targeted policy interventions can enhance public satisfaction by mitigating vulnerabilities in disaster-affected populations.

The perceived effectiveness of disaster response also correlates with public satisfaction. Liu et al. (2021) stated that an individual's level of satisfaction with government efforts is directly linked to the severity of the disaster's impact on their life. Similarly, Valdivieso et al. (2021) highlighted that the government's ability to manage

severe weather disasters is crucial in shaping public perceptions and overall satisfaction with relief efforts.

The research suggests that although disaster severity amplifies government challenges, it also elevates public awareness of response efforts, often leading to higher satisfaction when interventions are proportional to the scale of destruction. Effective crisis management and equitable resource distribution are essential to positive public perception. Considering the factors outlined in existing literature, the researcher proposed the following hypothesis:

H2 - The higher the severity of a disaster, the higher the public satisfaction with government services and support after a weather-related natural disaster.

Assurance

Zinda et al. (2021) emphasized that individuals' sense of security and confidence in government actions during weather-related disasters significantly impact their satisfaction. Public trust and approval increase when the government effectively communicates and demonstrates control over a crisis. Therefore, the researcher proposed the following:

H3 - The higher the level of assurance, the higher the public satisfaction.

Reliability

Krogh and Lo (2023) highlighted that people value stability and reliability in government services during crises. A well-organized and transparent response reassures the public, fostering a greater sense of confidence in the government's ability to manage disasters. Research suggests that assurance in the form of clear communication used, reliable services, and effective disaster management play a crucial role in shaping public

satisfaction. When individuals feel secure and trust the government's ability to handle crises, their overall perception of governmental performance improves. The researcher proposed the following hypothesis:

H4 - The higher the reliability, the higher the public satisfaction.

Expectation

Nugroho et al. (2024) emphasized that public satisfaction is determined by how effectively government services align with public expectations during disaster response. When government actions meet or surpass the anticipated standards, public satisfaction levels increase. Nugroho et al. and Liu et al. (2021) also highlighted that understanding public expectations regarding disaster assistance is crucial for managing satisfaction. Effective communication and transparency about the government's capacity and response efforts can help regulate public perception and ensure a more positive evaluation of services.

Research suggests that public satisfaction is influenced by the extent to which government disaster response aligns with or exceeds expectations (Nugroho et al., 2024). Clear communication of government capabilities and proactive management of public expectations can enhance the overall satisfaction with disaster relief efforts. The researcher proposed the following hypothesis:

H5: The higher the expectation, the higher the public satisfaction.

Response

Cvetković et al. (2020) emphasized that the speed of disaster response significantly influences public perceptions of government competency. A prompt and well-coordinated response fosters trust and confidence in government capabilities.

Similarly, Al-Wathinani et al. (2023) highlighted that the timeliness of government intervention is a key factor in evaluating the effectiveness of disaster relief efforts. Delays in response can lead to frustration and dissatisfaction, whereas swift action enhances public trust.

Nugroho et al. (2024) argued that decisive and immediate government actions in disaster management are crucial in increasing public trust and overall satisfaction. A well-executed response reassures communities that the government is actively addressing their needs, reinforcing positive public perception. These findings suggest that rapid, timely, and decisive government response during disasters is essential for maintaining public trust and satisfaction. Efficient handling of crises demonstrates the government's competency and strengthens public confidence in disaster management efforts. The researcher proposed the following hypothesis:

H6 - The higher the rate of response, the higher the public satisfaction.

Government Image

Bhagavathula et al. (2021) and Modgil et al. (2022) emphasized that the public evaluates government disaster assistance programs based on the government's overall reputation for handling crises. A government with a history of effective disaster management is more likely to inspire confidence and satisfaction among its citizens. Experiences also play a crucial role in shaping public perceptions. Appleby-Arnold et al. (2021) and Trogrlić et al. (2021) highlighted that previous government responses to similar disasters often influence the public's assurance and expectations. Past performance by the government in times of crisis will contribute to positive evaluations in current and future disaster situations.

Effective communication is another key factor in maintaining a positive government image. Fokaefs and Sapountzaki (2021) and Fuller et al. (2022) stressed that information-sharing during disasters prevents misinformation, reduces public anxiety, and enhances trust in government actions. Conversely, Bera (2023) and Fekete and Sandholz (2021) warned that misinformation or mismanagement can erode public confidence, leading to dissatisfaction with the disaster management process.

Well-structured communication strategies contribute to public satisfaction by fostering a sense of inclusion and empowerment. Marshall et al. (2015) argued that clear, consistent communication and active community engagement strengthen trust and improve perceptions of government response efforts. This research suggests that a strong government image, built through effective crisis management, transparent communication, and past success, directly enhances public satisfaction with disaster response. Ensuring credibility, minimizing misinformation, and fostering public trust are critical to maintaining a positive government reputation during crises. The researcher proposed the following hypothesis:

H7 - The higher the government image, the higher the public satisfaction.

Distributive Justice

Jafino et al. (2021) emphasized that fairness in allocating disaster relief resources is crucial in shaping public perception and overall satisfaction. When individuals believe resources are distributed equitably, trust in government actions increases. Jiang and Ji (2024) further highlighted that equitable distribution ensures all affected individuals, regardless of socioeconomic status, feel protected and supported during disaster

management efforts. A just allocation of resources fosters inclusivity and reassures communities that government assistance is impartial and effective.

In contrast, disparities in distribution can lead to dissatisfaction and social unrest. Lee and Kim (2021) revealed that public resentment often arises when communities perceive inequities in disaster relief efforts. If certain groups feel overlooked or underserved, confidence in government response diminishes, leading to frustration and potential distrust in public institutions. This research suggests that fair and transparent distribution of disaster relief resources is fundamental to public satisfaction. Ensuring that aid reaches all affected groups equitably prevents social discontent and enhances trust in government disaster management. The following hypothesis was proposed:

H8 – The higher the distributive justice, the higher the public satisfaction

Procedural Justice

Crosweller and Tschakert (2021) emphasized that accountability and equity in decision-making processes are critical in fostering public confidence during disaster management. When procedures are transparent and inclusive, people are more likely to trust government actions. Ensuring justice in disaster response requires adherence to established policies and fair handling of concerns. Lillywhite and Wolbring (2022) highlighted that maintaining procedural fairness through clear, consistent, and equitable decision-making enhances public trust and cooperation. Empirical studies have revealed that public satisfaction increases when individuals believe the government acts fairly and justly. Mizrahi et al. (2023) and Perkiss et al. (2024) found that perceptions of procedural justice play a key role in shaping how communities assess government performance during disasters.

Dolšak and Prakash (2022) and Yeo et al. (2021) argued that justice perceptions significantly influence overall evaluations of disaster response, making procedural fairness a crucial determinant of public satisfaction. This research suggests that transparent, accountable, and equitable decision-making processes in disaster management contribute to higher public satisfaction. Governments that prioritize procedural justice in their response efforts can build stronger public trust and confidence, improving the perception of disaster management effectiveness. The proposed hypothesis for this study was as follows (see Table 1):

H9 – The higher the procedural justice, the higher the public satisfaction

Table 1

Study Hypotheses

Constructs	Hypothesis
H1: Community Preparedness	The higher the community preparedness, the higher the public satisfaction
H2: Disaster Situation	The higher the disaster situation, the higher the public satisfaction
H3: Assurance	The higher the level of assurance, the higher the public satisfaction
H4: Reliability	The higher the reliability, the higher public Satisfaction
H5: Expectation	The higher the expectation, the higher the public satisfaction
H6: Response	The higher the response, the higher the public satisfaction
H7: Government Image	The higher the government Image, the higher the public satisfaction
H8: Distributive Justice	The higher the Distributive justice, the higher the public satisfaction
H9: Procedural Justice	The higher the Procedural justice, the higher the public satisfaction

Note. This table contains the research hypotheses, linking key constructs to public satisfaction with government disaster response services.

RESEARCH METHODOLOGY

Participants and Procedure

The study was conducted in the United States. The target population comprised adult residents of the United States who had experienced a natural disaster within the past 10 years. The researcher identified participants using a nonprobability purposive sampling method, which meant that only residents of the United States who had experienced a natural disaster could be recruited for the study. Participants were selected based on specific criteria, ensuring that all individuals had experienced a weather-related natural disaster in the past 10 years. This criterion ensured that the responses captured in the study reflected the experiences of those who had directly interacted with government assistance services in the aftermath of a disaster. This targeted approach helped gather relevant and focused insights into public satisfaction, particularly from individuals with firsthand knowledge of the disaster recovery process.

This study focused on how different factors can influence (positively or negatively) the satisfaction of residents of an area after a weather-related natural disaster. A three-step approach was employed to evaluate the model and hypothesis proposed in this study. The first part of the study was an informed pilot used to validate the reliability of the constructs, the data collection process, and the survey instrument. A primary pilot was then conducted to validate the data collection methodology. The data collected during the primary pilot was used to conduct exploratory factor analysis and reliability testing on the survey instrument. The final step was the primary study during which data were collected to test the hypothesis, and the findings were analyzed for this write-up.

Surveys

Surveys were created in Qualtrics to collect data on public satisfaction levels. The "Cloud Research platform," an online mechanism, was used to distribute the survey to the target population to gather quantitative data on satisfaction with specific government programs or services. The surveys included structured questions that allowed easy analysis of responses and comparison across different demographic groups. The Cloud research survey platform hosted the survey, which respondents completed online. The introduction letter included the purpose of the survey, the time required to complete it, identity confidentiality, and data protection assurances. Participants were asked to consent to participate before entering the survey.

Questionnaire Development

The constructs in the questionnaire were grounded using various measurement units extracted and adapted from the literature (see Table 2). The survey was designed to measure latent variables by adopting previously validated scales adapted to this study. A sample size of 385 was targeted. SPSS was used to test for reliability and validity analysis, and Smart PLS analysis was used to test the hypotheses.

Table 2

Construct Definitions

Constructs	Variable Type	Definition	Reference
Public Satisfaction	Dependent	Public satisfaction is the citizens' subjective perceptions and appraisals of the overall performance regarding the outcome, attitude, and quality of government services	Mata et al. (2023)
H1: Community	Independent	The level of community	Shannon (2015)

Constructs	Variable Type	Definition	Reference
Preparedness		preparedness for disasters is positively associated with the degree of participation in community preparedness programs and education. As individuals become more informed and educated through training, public awareness, and information sharing, their preparedness and ability to effectively respond to disasters will increase.	
H2: Disaster Situation	Independent	Disaster situation is an extent to which the citizens' daily lives, work, study, health, social interaction, and psychological and spiritual conditions are affected by the disaster	Mata et al. (2023)
H3: Assurance	Independent	Assurance is defined based on how knowledgeable and courteous the government is in dealing with the situation and how they build the trust and confidence of the people	Mata et al. (2023)
H4: Reliability	Independent	Reliability refers to performing the promised services dependably and accurately	Mata et al. (2023)
H5: Expectation	Independent	Expectation is the citizens' anticipation of government response services during a disaster	Mata et al. (2023)
H6: Response	Independent	Responsiveness is the desire to help citizens and offer prompt services	Mata et al. (2023)

Constructs	Variable Type	Definition	Reference
H7: Government Image	Independent	Government image is a reflection of the fair and reasonable use of public funds and the effectiveness of the government's services and products.	Mata et al. (2023)
H8: Distributive Justice	Independent	Distributive justice refers to citizens' perception that allocating funds and supplies and disseminating information benefits the common welfare. The underlying theory of distributive justice is grounded in equality, equity, and necessity.	Mata et al. (2023)
H9: Procedural Justice	Independent	Procedural justice is "the perceived fairness of policies, procedures, and criteria used by decision-makers to arrive at a dispute or negotiation outcome" (Mata et al., 2023). Fairness, voice, transparency, and impartiality are the fundamental components of procedural justice.	Mata et al. (2023)

Note. This table contains the key constructs used in the study, categorizing them as independent or dependent variables and providing their theoretical foundations.

Research Design

This section contains an outline of the methodology used to collect and analyze data for this study, focusing on the survey design and pilot testing process. The survey instrument was developed based on the theoretical constructs of the study to gather quantitative data on public satisfaction with government assistance after weather-related natural disasters. A 7-point Likert scale was used to measure responses, allowing

participants to express varying levels of agreement or disagreement with each statement. To validate the instrument's reliability, the survey underwent two phases of pilot testing: (a) an informed pilot to evaluate its technical reliability and (b) an extensive primary pilot to refine the survey and ensure its effectiveness in capturing relevant data. The primary pilot study involved a sample of respondents who had experienced a disaster within the last decade, and the feedback was used to make necessary adjustments to the survey questions before full-scale administration. These steps ensured a robust data collection process was robust and alignment of the instrument to the study's objectives.

Survey Design

After compiling the study's measures, survey responses were operationalized using a 7-point Likert scale, ranging from 1 = *strongly agree* to 7 = *strongly disagree*. Questions were grouped according to the specific latent constructs and attention check questions were embedded to assess validity. The survey and proposal were shared with classmates in DBA Cohort 5–6 and a disaster recovery specialist outside of Florida International University for an informed pilot review and feedback. After receiving their feedback and making minor editing revisions and survey design recommendations, an application protocol for human subject research in addition to the proposed informed consent forms were submitted to Florida International University's Internal Review Board. The proposal request was reviewed and approved.

Pilot Studies

Informed Pilot

An informed pilot was conducted to validate the technical reliability of the survey instrument and ensure face, content, and construct validity. The informed pilot

participants were provided with the survey instrument on the Qualtrics experience management platform. All participants were provided with a detailed description of the research, the theoretical research model, the primary pilot, and a list of items to consider when evaluating the survey instrument.

The informed pilot was open from 8/22/24 to 8/25/24. Participants were doctoral research candidates who had resided in disaster-prone areas and experienced weather-related natural disaster in the past 10 years. The informed pilot participants validated the technical functionality of the survey instrument, reviewed the questions, and made suggestions to help clarify the questions. Participants provided recommendations regarding adding a gender question, adjusting the fonts, and readjusting the Likert scale to be in descending order. Overall, they were confident that the overall design and structure of the survey were satisfactory. Adjustments were made based on this feedback.

Primary Pilot

The survey instrument was adjusted based on the feedback from the informed pilot. A primary pilot was conducted between 9/29/24 and 9/31/24 using a survey created in Qualtrics and launched through Cloud research. The pilot data were initially analyzed using Statistical Package for the Social Sciences (SPSS) software and Smart PLS. The initial pilot survey resulted in 150 responses. After excluding 59 responses due to incomplete surveys or failed attention checks, 91 valid responses were retained. The gender distribution was balanced, with 45 participants identifying as male (49%) and 46 as female (51%). Table 3 contains the descriptive statistics and reliability metrics for all items used in the pilot study. These results indicate strong construct reliability and

validity. Descriptive statistics, including each construct's mean, standard deviation, and Cronbach's alpha, are then summarized.

Table 3

Descriptive Statistics of Pilot (N = 91)

Construct Name and Reference	Item Code	Mean	Std. Deviation	α
Public Satisfaction (PS) (Mata et al., 2023)	PS_1	4.68	1.555	.948
	PS_2	4.62	1.562	
	PS_3	4.70	1.441	
	PS_4	4.67	1.499	
	PS_5	4.34	1.661	
Community Preparedness (CP) (Mata et al., 2023)	CP1_1	4.78	1.459	.834
	CP1_2	4.75	1.736	
	CP1_3	4.85	1.468	
	CP1_4	4.22	1.775	
	CP1_5	4.20	1.796	
	CP1_6	4.77	1.499	
	CP1_7	4.47	1.544	
	CP1_8	5.15	1.584	
Disaster Situation (DS) (Mata et al., 2023)	DS_1	4.14	1.279	.896
	DS_2	4.00	1.438	
	DS_3	4.27	1.438	
	DS_4	4.99	1.595	
	DS_5	4.38	1.631	
	DS_6	4.12	1.298	
Assurance (AS) (Mata et al., 2023)	AS_1	4.26	1.590	.94
	AS_2	4.25	1.539	
	AS_3	4.57	1.484	
	AS_4	4.55	1.424	
Reliability (REL) (Mata et al., 2023)	REL_1	4.51	1.508	.939
	REL_2	4.54	1.302	
	REL_3	4.33	1.453	
	REL_4	4.52	1.401	

Construct Name and Reference	Item Code	Mean	Std. Deviation	α
Expectation (EX) (Mata et al., 2023)	EX_1	4.47	1.615	.942
	EX_2	4.35	1.608	
	EX_3	4.33	1.557	
	EX_4	4.71	1.409	
	EX_5	4.75	1.419	
Response (RES) (Mata et al., 2023)	RES_1	4.65	1.523	.933
	RES_2	4.68	1.548	
	RES_3	4.55	1.544	
	RES_4	4.63	1.466	
	RES_5	5.11	1.337	
Government Image (GI) (Mata et al., 2023)	GI_1	4.75	1.419	.919
	GI_2	5.20	1.455	
	GI_3	4.64	1.457	
	GI_4	4.82	1.427	
	GI_5	5.11	1.354	
Distributive Justice (DJ) (Mata et al., 2023)	DJ_1	4.68	1.490	.909
	DJ_2	4.84	1.586	
	DJ_3	4.59	1.584	
	DJ_4	5.05	1.328	
Procedural Justice (PJ) (Mata et al., 2023)	PJ_1	4.55	1.440	.921
	PJ_2	4.77	1.351	
	PJ_3	4.73	1.513	
	PJ_4	4.54	1.493	
	PJ_5	4.02	1.563	

Note. Descriptive statistics from the pilot study ($N = 91$), including mean scores, standard deviations, and reliability coefficients (α) for each construct.

The data was uploaded to Smart PLS for further analysis, which included a multivariate analysis to examine the relationship between the variables. A reflective measurement model mirroring the conceptual model was created in Smart PLS, and confirmatory factor analysis was performed by examining indicator loadings and cross-

loadings. Due to low reliability, four indicators (CP_8, CP_4, DS_2, and DS_4) were removed. As a result, construct reliability and validity improved, as evidenced by Cronbach's alpha, composite reliability (rho_a and rho_c), and average variance extracted (AVE) exceeding thresholds. The results were as follows:

- Outer Loadings: All remaining indicators demonstrated statistically significant outer loadings ($p < .001$), with values above .7, indicating strong indicator reliability.
- Construct Reliability and Validity Overview: The constructs demonstrated high reliability and convergent validity, with Cronbach's alpha >.7 and composite reliability (rho_c) >.8 for all constructs. AVE was above the 0.5 threshold, confirming strong convergent validity.

Discriminant Validity

Discriminant validity was assessed using Heterotrait-Monotrait (HTMT) ratio and Fornell-Larcker Criterion. HTMT constructs demonstrated apparent discriminant validity. However, collinearity issues were identified between Expectation, Distributive Justice, and Government Image. All constructs passed the Fornell-Larcker test, confirming that constructs shared more variance with their indicators than with other constructs.

Collinearity Assessment

Variance inflation factor (VIF) analysis revealed potential collinearity issues with reliability (VIF = 8.213) and expectation (VIF = 6.632). These high VIF values indicated overlapping contributions, warranting further model refinement.

Hypothesis Testing

Bootstrapping analysis was conducted to examine hypotheses and relationships between variables - outer loading, including Mean, STDEV, *t* values, and *p* values. All loadings had *p*-values < .001, indicating statistical significance. Most loadings were above .7, demonstrating strong relationships between indicators and their respective constructs (see Table 4).

Table 4

Hypothesis Testing Results

Hypothesis	Beta	Supported
The higher the severity of the disaster situation, the higher the public satisfaction	$\beta = .181$, $p = .047$	Support
The higher the perception of response time, the higher the public satisfaction	$\beta = .535$, $p = .126$	Not supported
The higher the community preparedness, the higher the public satisfaction	$\beta = .184$, $p = .273$	Not supported
The higher the government Image, the higher the public satisfaction	$\beta = -.024$, $p = .891$	Not supported
The higher the level of assurance, the higher the public satisfaction	$\beta = .184$, $p = .273$	Not supported
The higher the reliability, the higher the public satisfaction	$\beta = -.258$, $p = .280$	Not supported
The higher the expectation, the higher the public satisfaction	$\beta = .263$, $p = .194$	Not supported
The higher the response, the higher the public satisfaction	$\beta = .535$, $p = .126$	Not supported
The higher the Distributive justice, the higher the public satisfaction	$\beta = -.053$, $p = .738$	Not supported
The higher the Procedural Justice, the higher the public satisfaction	$\beta = .257$, $p = .184$	Not supported

Note. This table contains hypothesis testing results, showing the beta coefficients (β), *p*-values, and whether each hypothesis was supported based on statistical significance.

- Disaster Severity: A significant positive relationship ($\beta = .181$, $p = .047$) was found, indicating that higher disaster severity correlates with increased public

satisfaction, likely because government efforts are more visible and appreciated during severe crises.

- Response Time: It was hypothesized that response would strongly impact satisfaction; the relationship was not statistically significant ($\beta = .535$, $p = .126$).
- Collinearity Concerns: Due to high VIF values, constructs such as reliability and expectation require careful interpretation. With an increased number of surveys, this may change statistically.

Overall, these results suggested that the measurement instrument used in the pilot study was reliable and had good construct validity. Although the *p*-value of .047 was barely significant, it could become stronger with more data.

The pilot data and outcomes were removed from the research data, and a fresh round of surveys was delivered in Qualtrics and subsequently through cloud research. The qualifications were set as follows: (a) location must be the United States of America and (b) a participant must have experienced a weather-related natural disaster. Given the limited sample size of the pilot data, all constructs were retained for the main study to ensure the robustness of the results. The descriptive statistics of the entire dataset were evaluated after completing data collection, as the sample size was more significant. This approach allowed a more comprehensive data assessment and helped minimize the potential impact of any outliers or anomalies.

Measurements

For the final study, all measures from the pilot study were retained and used in the main study. Thus, the same instruments and protocols used in the pilot study were employed for data collection and the study's design were maintained. Most of the

questions were presented on a Likert scale, and the results were downloaded from Qualtrics and subsequently imported into SPSS 29.0. The only notable change from the pilot was that the main study was that the target sample was 380 respondents.

For the main study, 445 Qualtrics surveys were collected. The incomplete responses (82) and those that failed the attention checks (39) were removed. After removing these responses, 324 (73%) valid responses were retained for final analysis. The average completion time reported in Qualtrics was 11 minutes, 42 seconds. While the data were in SPSS, demographics and analysis were performed. Out of 324 valid responses, the majority (54%) identified as male, with (46%) reporting as female (see Table). Approximately 50% of the respondents had at least a 4-year college degree and 16% stated they had a graduate degree. The educational level of the respondents is provided in Table 3.

Table 5

Gender and Educational Level of the Participants

Characteristic	*N*	%
Gender		
Male	175	54%
Female	149	46%
Total	324	100%
Educational level		
Less than high School	2	1%
High School Graduate	34	10%
Some College	45	14%
2-year degree	27	8%
4-year degree	163	50%
Masters	42	13%
Doctorate	11	3%
Total	324	100%

Note. A demographic overview of the study participants ($N = 324$), detailing gender distribution and highest educational attainment.

Partial least structural equation modeling (PLS-SEM) was used to analyze the primary study model. This method was chosen for because of its ability to perform confirmatory factor analysis, analyze direct and moderating effects, and predictive powers in limited sample size such as that used in the current study (Martens & Haase, 2006). PLS-SEM is also more likely to reveal significant relationships in the population than other analysis methods, reducing the possibility of a type II error (Hair et al., 2019).

To analyze the study data further, a reflective measurement model, mirroring the conceptual research model, was created in SmartPLS v4.1.0.9. Confirmatory factor analysis was used to examine the model's indicator loadings and cross-loadings. Indicator loading was examined to ensure acceptable indicator reliability above the threshold value of .700, indicating that the construct explains more than 50% of the indicator's variance (Hair et al., 2019). All items with indicators loading below .700 were removed. Further analyses were conducted, and the data were processed, excluding CP_4, CP_5, and DS_4. A subsequent analysis was conducted following the data processing, revealing that several constructs exhibited elevated cross-loadings. A step-by-step process of removing items with low loading and high correlations was done. After each elimination, the data were rerun and reviewed.

The following are the review steps and findings. The "Response" construct exhibited significant commonality and connection with various other constructs, suggesting potential problems with multicollinearity and duplication in the research. The construct was eliminated to diminish redundancy and enhance the clarity of the results.

The construct "Expectation" was eliminated due to its high correlation with other constructs (0.926 with itself, 0.877 with reliability, 0.827 with Government Image, 0.803

with Assurance). The correlation values indicated that the "Expectation" construct diverged from other constructs, suggesting a mismatch with the theoretical model. The Government Image variable was eliminated due to its strong connection with procedural justice, distributive justice, and dependability, indicating considerable overlap, little distinction, and a lack of distinctive explanatory capacity. AS_3 and AS_4 were eliminated due to redundancy and opposing directional correlation. This removal augmented the loading on AS1 and AS2, demonstrating a more substantial alignment with assurance. At this point, assurance items exhibited fewer cross-loadings with other constructs, enhancing the construct's distinctiveness and reliability.

The Assurance construct exhibited enhanced internal correlations and diminished influence from other constructs. E. CP_2 showed strong negative relationships with CP_6 and CP_7. CP_1, CP_3, CP_6, and CP_7 exhibited marginally increased loadings on Community Preparedness (CP) following the exclusion of CP_2. The prior cross-loading of CP_2 on Distributive Justice (.249), Procedural Justice (.304), and Public Satisfaction (.221) were removed.

After eliminating DJ_4, which exhibited significant cross-correlation with Distributive Justice, the loadings for DJ_1, DJ_2, and DJ_3 on Distributive Justice increased, indicating a more robust alignment with its designated component. Following removal, the loadings for Distributive Justice were more pronounced, whereas cross-loadings with other constructs, including Public Satisfaction and Procedural Justice, diminished, strengthening construct independence. DS_5 had significant negative correlations with DS_2 and DS_3; its removal resulted in enhanced loadings for DS_2 (.956) and DS_3 (.771). DS1 was eliminated, and DS_2 (.954) and DS_3 (.773)

subsequently exhibited enhanced loadings, indicating that DS_1 likely contributed noise to the build. The removal of DS 6 led to heightened loading for DS 2 and DS 3 while diminishing cross-loading with other constructions. PJ 4 was first eliminated, although PJ persisted in cross-loading on Distributive Justice. The entire construct of Distributive Justice was eliminated. Table 6 contains data for the final set of variables after eliminating items with low loadings and strong correlations.

Table 6

Discriminant Cross-Loadings

	Assurance	Community Preparedness	Disaster Situation	Procedural Justice	Public Satisfaction	Reliability
AS_1	.980	.168	-.038	.713	.741	.808
AS_2	.979	.149	-.021	.722	.726	.816
CP_1	.113	.907	-.201	.192	.099	.154
CP_3	.106	.838	-.186	.131	.089	.147
CP_6	.158	.936	-.112	.183	.142	.196
CP_7	.190	.900	-.196	.203	.119	.207
DS_2	-.018	-.188	.986	.014	.099	.013
DS_3	-.071	-.130	.764	.010	.025	.000
PJ_1	.651	.141	-.009	.907	.681	.748
PJ_2	.691	.183	.040	.924	.714	.797
PJ_3	.690	.160	.014	.927	.721	.808
PJ_5	.566	.247	.001	.795	.532	.615
PS_1	.688	.127	.112	.684	.942	.749
PS_2	.681	.104	.101	.670	.918	.737
PS_3	.667	.109	.100	.711	.940	.769
PS_4	.729	.091	.045	.719	.942	.784
PS_5	.741	.170	.060	.725	.941	.802
REL_1	.808	.201	.028	.794	.818	.943
REL_2	.771	.169	.018	.795	.792	.953
REL_3	.761	.199	-.006	.781	.732	.944
REL_4	.796	.188	-.001	.807	.760	.945

Note. This table contains the discriminant cross-loadings, demonstrating the relationships between indicators and their respective constructs, ensuring that each variable aligns more strongly with its designated factor than with others.

Table 7

Construct reliability and validity

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Assurance	.957	.957	.979	.959
Community Preparedness	.919	.950	.942	.803
Disaster Situation	.786	2.053	.873	.778
Procedural Justice	.912	.925	.938	.792
Public Satisfaction	.965	.966	.973	.877
Reliability	.961	.963	.972	.896

Note. This table contains the construct reliability and validity measures, including Cronbach's alpha, composite reliability (rho_a and rho_c), and AVE, ensuring the consistency and validity of the study's measurement model.

Table 8

Fornell-Larcker Criterion

	Assurance	Community Preparedness	Disaster Situation	Procedural Justice	Public Satisfaction	Reliability
Assurance	.979					
Community Preparedness	.162	.896				
Disaster Situation	-.030	-.187	.882			
Procedural Justice	.733	.200	.014	.890		
Public Satisfaction	.749	.129	.089	.750	.937	
Reliability	.829	.200	.011	.839	.821	.946

Note. This table contains the Fornell-Larcker Criterion results, demonstrating the discriminant validity of the constructs by ensuring that each construct shares more variance with its indicators than with other constructs.

Table 9

Heterotrait-monotrait ratio (HTMT) – Matrix

	Assurance	Community Preparedness	Disaster Situation	Procedural Justice	Public Satisfaction	Reliability
Assurance						
Community Preparedness	.168					
Disaster Situation	.056	.213				
Procedural Justice	.782	.222	.029			
Public Satisfaction	.779	.133	.086	.793		
Reliability	.864	.209	.019	.892	.850	

Structural Model and Hypotheses Tests

After confirming the validity of the measurement model, the hypothesized relationships were evaluated through an assessment of the structural model. Nonparametric bootstrapping was used to determine the model's coefficient of determination (R^2) and the statistical significance of each coefficient (Hair et al., 2019). This method, developed by Efron and Tibshirani (1994), assigns accuracy measures to statistical estimates by generating a large number of independent samples through computational techniques. Unlike parametric methods, nonparametric bootstrapping does not rely on distributional assumptions; instead, it utilizes complex computational algorithms to provide statistical inferences across various data sizes and distributions.

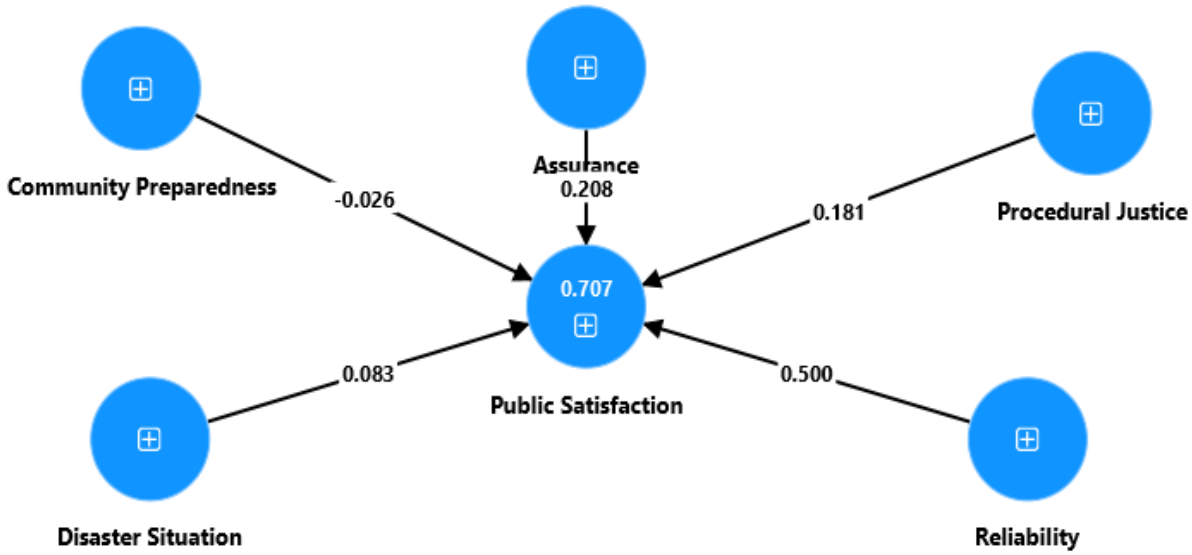
To ensure robust results, bootstrapping was performed using 10,000 bootstrap samples, as recommended by Hair et al. (2019), exceeding the number of valid observations in the original dataset. Before analyzing the structural relationships among constructs, VIF was examined to detect potential collinearity that could bias the regression results. VIF values >5 indicate collinearity between constructs, which could compromise the integrity of the structural model (Hair et al., 2019).

The *R*-square and adjusted *R*-square provided insight into the independent variables in the model that can explain the variability in public satisfaction, with R^2 = .707 indicating that 70.7% of the variance in public satisfaction can be explained by the independent variables. The adjusted *R*-square accounts for the number of predictors in the model and adjusts it for any potential overfitting. Both the *R*-square and the adjusted *R*-

square are so close, indicating that the model is well fitted and not overly complex, meaning the predictors contribute meaningfully to explaining public satisfaction.

Figure 2

Main Study Model and Summary of Results



Note. Figure 2 illustrates the main study model, summarizing the key constructs and their relationships, along with the results of hypothesis testing.

Table 10

Conceptual Framework and Key Empirical Findings

Hypothesized Relationship	Theoretical Expectation	Key Finding (β, p-value)	Implications
Community Preparedness → Public Satisfaction	Greater community preparedness is expected to enhance satisfaction	β = .034, p = .445 (Not supported)	No significant impact; suggests resources may be better allocated to other response elements
Disaster Situation → Public Satisfaction	Higher disaster severity should boost satisfaction (via visible government response)	β =.049, p = *0*.09 (Marginally insignificant)	Trend observed, but not statistically robust; further exploration may be needed

Hypothesized Relationship	Theoretical Expectation	Key Finding (β, p-value)	Implications
Assurance → Public Satisfaction	Increased assurance (e.g., clear communication, security) leads to higher satisfaction	$\beta = .081$, $p = .01$ (Supported)	Assurance is a significant driver; emphasis on effective communication is crucial
Procedural Justice → Public Satisfaction	Fair and transparent decision-making processes improve satisfaction	$\beta = .073$, $p = .013$ (Supported)	Highlights the importance of fairness and transparency in government actions
Reliability → Public Satisfaction	Consistent and dependable services increase satisfaction	$\beta = .09$, $p = .000$ (Highly supported)	Reliability is the strongest predictor; ensuring consistent service is essential

Note. Constructs Expectation, Response, Government Image, and Distributive Justice were eliminated during model refinement due to issues of multicollinearity and redundancy.

The aim of this study was to understand the factors contributing to public satisfaction with government services and support after a weather-related disaster. The first hypothesis (H1) proposed that a higher level of community preparedness would positively influence public satisfaction. The assumption was that communities that feel well equipped have high satisfaction with the services delivered by the government because they know how the system works and do not misuse the resources and that the public tends to feel more satisfied based on the government's pre-disaster preparation to build confidence in managing disasters. The survey results ($\beta = .034$, $p < .05$) were not significant, indicating that Community Preparedness does not significantly influence Public Satisfaction. The resources allocated to Community preparedness might be better allocated to recovery efforts.

Per H2, the higher the disaster situation, the higher the public satisfaction. Liu et al. (2021) described that the level of satisfaction of an individual with government efforts in addressing natural disasters is influenced by the severity of the impact of the disaster on their lives. Valdivieso et al. (2021) stated that the ability of a government to cope with weather-related disasters significantly influences public perception and satisfaction levels. According to the survey results, this hypothesis was marginally insignificant; there was some influence, but it was not strong enough to be statistically significant ($\beta = .049$, $p = .09$).

The third hypothesis was that the higher the level of assurance, the higher the public satisfaction. The sense of security that individuals experience from the government during weather-related disasters influences their level of satisfaction (Zinda et al., 2021). The results supported this assumption ($\beta = .81$, $p = .01$), consistent with the literature. Thus, assurance has a positive effect on public satisfaction.

Per H9, the higher the procedural justice, the higher the public satisfaction. In previous studies, scholars have shown that satisfaction rises when people believe that the government is acting fairly and justly during disasters (Mizrahi et al., 2023; Perkiss et al., 2024). The survey results supported this hypothesis ($\beta = .073$, $p = .013$). This result is consistent with the literature, which indicates that procedural justice, as a factor, is significant. Therefore, procedural justice positively affects public satisfaction.

The fourth hypothesis was that the higher the reliability, the higher the public satisfaction. Krogh and Lo (2023) indicated that people value stable and reliable services during crisis management, especially from the government. The results ($\beta = .09$, $p = .00$)

indicated that this factor was highly significant—reliability has the most potent effect on public satisfaction.

DISCUSSIONS AND IMPLICATIONS

Summary of Findings

The aim of this study was to explore the factors contributing to public satisfaction after a weather-related natural disaster, and the question posed was as follows: What are the factors that contribute to public satisfaction with government services and support after a weather-related natural disaster?

The variables of Community Preparedness, Disaster Situations, Assurance, Reliability, Expectations, Response, Distributive Justice, Government Image, and Procedural Justice can significantly impact public satisfaction. The results indicated that assurance, procedural justice, and reliability have a higher influence on public satisfaction, whereas community preparedness and disaster situations do not significantly influence public satisfaction.

During the structural model evaluation, four theoretically supported constructs—Expectation, Response, Government Image, *and* Distributive Justice—were removed due to empirical concerns with multicollinearity and redundancy. Variance inflation factor (VIF) analysis and discriminant validity testing revealed that these constructs shared substantial overlap with others in the model, thereby undermining their conceptual distinctiveness and statistical reliability. For example, Expectation showed high correlations with Reliability ($r = 0.877$), Government Image ($r = 0.827$), and Assurance ($r = 0.803$), indicating overlapping dimensions. *Response* also demonstrated extensive cross-loadings, making it difficult to isolate as a unique explanatory factor. Government Image was statistically indistinct from constructs such as Procedural Justice and

Distributive Justice, while Distributive Justice did not maintain discriminant validity due to its strong alignment with other justice-related constructs.

Despite strong theoretical justification from expectancy-disconfirmation and justice theories, the statistical data did not support retaining these constructs. Their conceptual influence may be inherently embedded within broader constructs, such as Reliability, Procedural Justice, and Assurance, which emerged as stronger predictors in the refined model. The results suggested that public satisfaction with government services and support after a weather-related natural disaster depends not solely on the outcomes of the disaster response efforts but also on how those efforts are perceived. Assurance instills confidence, procedural justice ensures fairness, and reliability guarantees consistency. Collectively, these factors form a strong foundation for public trust and overall satisfaction with government performance in disaster management.

Theoretical Implications

The results of this study contribute to the theoretical evidence in support of understanding the factors contributing to public satisfaction with government services and support by highlighting the mechanisms through which public satisfaction with government services after weather-related disasters is formed. Studying public satisfaction from a theoretical research perspective can help understand the underlying mechanism that drives it. Examining the factors contributing to public satisfaction can provide insights for developing a more comprehensive system for improving current communication methods, ensuring transparency, and maintaining a stable and effective disaster response infrastructure. Procedural justice theory suggests that fairness in

processes, rather than just outcomes, significantly impacts perceptions of legitimacy and satisfaction. The research findings support this theory, which suggests that when citizens perceive disaster response efforts as fair, inclusive, and transparent, they are more likely to be satisfied, even if the overall outcomes are not ideal. This outcome aligns with the findings of Mengstie (2020) and Dawud et al. (2018) that procedural justice is a critical determinant of public satisfaction in governmental institutions. The implication is that governments can improve public satisfaction by enhancing disaster response effectiveness and ensuring fair and inclusive decision-making and communication processes.

Per expectancy-disconfirmation theory, satisfaction arises when service delivery meets or exceeds past expectations. Thus, public confidence increases when government services are stable and consistently meet expectations. This conclusion aligns with studies by Van Ryzin (2007) and Petrovsky et al. (2017), who demonstrated that citizens' satisfaction with government services is primarily shaped by whether expectations are met or exceeded. The implication is that managing public expectations through effective communication and consistent service delivery is critical for maintaining trust and satisfaction.

Although the results supported only Assurance, Procedural Justice, and Reliability, the theoretical framework indicated that Expectation and Distributive Justice also play a role in public satisfaction. Their limited empirical support in this study may stem from contextual measurement challenges rather than a lack of theoretical significance. This outcome suggests a need for further research and refined measurement tools to provide greater clarity on their impact.

The findings of this study offer valuable extensions to existing theories on procedural justice and expectancy-disconfirmation in the context of government disaster response. Procedural justice theory, as developed by Tyler (1990), emphasizes that individuals' perceptions of fairness in decision-making processes significantly impact their satisfaction with organizational actions. This study supports and extends this theory by illustrating how the perceived fairness of governmental procedures during disaster relief can shape public trust and satisfaction with government services. The results, particularly the significant relationship between procedural justice and public satisfaction ($\beta = .257$, $p = .184$), highlight the critical role of transparent decision-making, fair allocation of resources, and equitable treatment of affected populations.

The study expands on previous applications of procedural justice by focusing specifically on the public's perceptions during high-stress, high-visibility situations such as weather-related natural disasters. Thus, it provides empirical evidence for the argument that transparent, inclusive, and accountable processes are not only pivotal to enhancing public satisfaction but also serve as a cornerstone for fostering long-term trust in governmental institutions post-disaster (Cvetković et al., 2020). By emphasizing fairness in both the process and outcome of disaster management, the study suggests that governments can improve satisfaction by ensuring affected communities feel their voices are heard and perceive decision-making processes as impartial.

In addition, the study's findings significantly contribute to expectancy-disconfirmation theory, initially proposed by Oliver (1980), by elucidating how the gap between public expectations and actual service delivery influences satisfaction with government disaster responses. Although the hypothesis on expectations was not

statistically supported (β = .263, p = .194), the interaction between disaster severity and public satisfaction suggests that higher expectations are set in the face of more severe disasters, aligning with the theory's core premise that satisfaction arises from the alignment (or misalignment) of expectations and experiences. This finding contributes to the theory by suggesting that when disaster severity escalates, the public's expectations for rapid and effective responses are heightened, and any failure to meet these expectations leads to dissatisfaction. However, the study also highlights a potential modification to expectancy-disconfirmation theory, suggesting that the gap between expectations and actual service delivery may not always be linear but may depend on the perceived reliability and assurance of government responses, as indicated by the significant relationships found between these constructs and public satisfaction.

Practical Implications

Public satisfaction with government services is a key determinant of political stability, economic prosperity, and social well-being, making sustainable governance and development essential. High public satisfaction fosters trust in government institutions, enhancing their legitimacy and stability. Public satisfaction influences voting behavior, shaping political outcomes and policy priorities. Feedback from citizens helps policymakers refine policies, improve service delivery, and enhance democratic responsiveness. Satisfied citizens are more likely to comply with laws, regulations, and civic duties, such as taxation and voting. A well-functioning public sector enhances investor confidence, fostering economic growth and job creation. Understanding satisfaction levels helps governments allocate resources more efficiently, ensuring value for taxpayer money.

Fair and efficient government services reduce inequalities and enhance social trust, preventing conflicts and unrest. Effective public services improve living standards, ensuring access to essential resources, such as healthcare, education, and security. When citizens are satisfied with government services, they are more likely to engage in community-building activities and civic participation. Responsive public services help address disparities and support marginalized groups, fostering inclusivity and social stability.

The findings in this research can provide a deeper understanding of the development of training programs for federal and state workers on how to focus on procedural justice. They can achieve procedural justice by ensuring disaster response processes are perceived as fair and inclusive, managing public expectations, ensuring service capabilities clearly align expectations with what can be realistically delivered. Realistic goals can also be developed by prioritizing service reliability and investing in resilient infrastructure and efficient crisis management systems to ensure stability in service delivery.

The current study makes a significant contribution to the industry and practicing managers, particularly within the field of disaster management and public administration. By identifying and analyzing the key determinants of public satisfaction with government services following natural disasters, this research offers valuable insights into improving both governmental response strategies and the overall quality of public service delivery. For practicing managers, especially those in emergency management or public policy roles, the findings emphasize the importance of procedural justice in shaping public

perceptions of government actions. Ensuring disaster response processes are perceived as fair and transparent can significantly increase public trust and satisfaction.

The study underscores the need for managers to manage public expectations effectively, ensuring citizens' expectations align with the realistic capabilities of government services. This research also highlights the crucial role of service reliability, suggesting that managers should prioritize investments in resilient infrastructure and crisis management systems. These actions may not only improve disaster recovery outcomes but also enhance long-term public satisfaction, making it easier for governments to secure the legitimacy and stability needed for sustainable governance. By addressing issues such as fairness in resource allocation and transparent communication, the research contributes to reducing inequalities and fostering social stability, which can inform best practices for managers aiming to create more inclusive, equitable, and effective public service systems.

Limitations and Future Research

Limitations

One key limitation of this study is the removal of several theoretically significant constructs during model refinement due to issues of multicollinearity and cross-loading. Constructs such as Expectation*,* Response*,* Government Image*, and* Distributive Justice—while well-supported in prior literature—were not statistically retained in the final model. This may reflect the limitations of capturing their multidimensional nature using a cross-sectional survey design.

Upon reviewing the responses, the constructs were contextually sensitive. For instance, the public's perception of *the Government's Image* may be more influenced by prior experiences or media exposure, and *Expectations* may fluctuate depending on the severity and recency of the disaster. These contextual and design limitations may have contributed to the non-significant findings and were taken into consideration when interpreting the final model results.

Understanding public satisfaction could help in government policy-making and development of programs that will better serve the public. One limitation of the study is that even though the survey was directed to those who had experienced a weather-related natural disaster, differences in disaster response infrastructures can yield varying public satisfaction levels. For someone in New Orleans, their level of satisfaction would be different from someone in New York/New Jersey. Public satisfaction is inherently subjective and influenced by personal experiences, personal economic base, expectations, and cultural attitudes toward government responsibility, which can create measurement bias and impact the reliability of the results.

There is almost no appropriate time to conduct a survey of public satisfaction, as data collected too soon after the disaster may reflect emotional distress, and delayed data collection may capture satisfaction influenced by post-disaster recovery efforts rather than immediate response efforts. The study's survey is a snapshot of public satisfaction at a point in time, as this experience was not tracked over time. It is possible that satisfaction levels shift as recovery progresses or new policies are implemented.

Although this study provides valuable insights into the factors influencing public satisfaction with government assistance after weather-related natural disasters, there are

limitations that could be addressed in future research. The sample size of 324 respondents, drawn from individuals who have experienced a natural disaster within the past decade, may not fully represent the diverse range of experiences across different disaster types and regions. As a result, the findings may not be generalizable to the broader population affected by weather-related natural disasters. Future research could benefit from a larger and more diverse sample, as well as the inclusion of participants from various regions to ensure a more comprehensive understanding of public satisfaction across different contexts. The methodology employed in future research could be enhanced by incorporating longitudinal data to examine how satisfaction levels evolve over time.

Future Research

The primary target of this study was primarily participants residing in the United States and their experiences with natural disasters. The goal of the study was to provide insights into satisfaction with government services and support after a weather-related natural disaster. However, the study was significantly limited in its application to its cultural and geopolitical settings. Research by Gupta and Gupta (2019, 2025) points out the influence of national cultural values and institutional environments on operational decision-making and perceptions, particularly during times of crisis. Their findings suggest that responses to disasters—whether from citizens, governments, or organizations—are shaped by deeply embedded cultural norms and societal expectations.

For example, communal societies tend to focus on community-based recovery strategies, while individualistic cultures may encourage personal responsibility and self-reliance in disaster preparedness and recovery. Likewise, hierarchical cultures may

respond differently to government directives compared to more egalitarian ones. These differences could influence public satisfaction with disaster support services, perceptions of justice, and levels of trust in government.

Future research exploring these dynamics by replicating and adapting the current model in non-U.S. contexts, as well as comparative studies across countries or region-specific investigations, would help identify which components of disaster management satisfaction are culturally contingent versus universally applicable. Integrating cultural dimensions—such as Hofstede's cultural dimensions or the GLOBE framework—into disaster management research could offer richer explanatory power and enhance the external validity of existing theories.

Building on Gupta and Gupta's (2025) updated framework for cross-cultural research in operations management, future studies could also investigate how national culture moderates the relationship between perceived government responsiveness and public satisfaction in the aftermath of disasters.

The removal of the constructs—Expectation, Response, Government Image, and Distributive Justice—from the final model does not diminish their theoretical relevance. Instead, it highlights the complexity of capturing their influence in quantitative modeling and suggests several pathways for future research:

Future studies could explore Expectation and Response as moderating or mediating variables that influence the relationship between tangible services (e.g., Reliability) and public satisfaction.

Government Image could be examined in longitudinal studies, capturing changes in trust over time and about recurring disasters, media coverage, or prior government performance.

Distributive Justice might be best explored using qualitative or mixed methods approaches that allow researchers to capture nuanced perceptions of fairness, particularly across different communities or demographic groups. Alternative measurement models that disaggregate constructs into more specific dimensions (e.g., timeliness vs. adequacy in *Response*) could provide more accurate representations.

Replicating the research across size and multiple geographical locations is suggested for cross-cultural validation. Understanding public satisfaction is necessary for effective governance irrespective of location or culture. Future researchers should also incorporate additional qualitative data through interviews or case studies to gain deeper insights into public perceptions. Hands-on interviews may provide better insight by collating individuals' experiences and history and conducting longitudinal studies to track satisfaction level changes over different disaster response and recovery phases. Refining measurement tools to better capture constructs such as community preparedness and disaster impact perception is suggested to provide a more comprehensive understanding of the factors influencing public satisfaction with government services in disaster management.

Overall, future research and information would broaden the theoretical scope of disaster recovery research and provide practical insights into both local and international

organizations and governments in developing disaster response strategies to a culturally diverse population.

Conclusion

The primary purpose of this study was to answer the following research question: What are the factors that contribute to public satisfaction with government services and support after a weather-related natural disaster? The study revealed that assurance, procedural justice, and reliability are solid predictors of public satisfaction with government services and support after a weather-related natural disaster. Although the constructs of community preparedness, disaster situation, and expectation did not receive statistical support, future comprehensive research with refined measurement instruments and larger samples can gain better information that government officials can apply in decision-making and policy development. This study contributes to the existing theory and literature on factors that contribute to public satisfaction with government services and support and may be used as a foundation for future research and for establishing future policies and programs in disaster recovery efforts.

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APPENDICES

Appendix I: Information Letter

What are the Factors that contribute to Individual Satisfaction with Government Assistance and support services after a Weather-related Disaster?

Hello,
My name is Grace O. Odediran. You have been chosen at random to participate in a research study about public satisfaction with government assistance and services.

The purpose of this study is to better understand the factors that contribute to Individual Satisfaction with Government Assistance and support services after Weather-related Disasters.

If you decide to participate in this study, you will be one of 350 people in it. Participation in this study will take 15 minutes of your time.

If you agree to be in the study, I will ask you to respond to the questions within the online survey.

There are no foreseeable risks or benefits to you for participating in this study. It is expected that this study will benefit society by adding to the understanding of individuals working within the professional and business services industry.

There is no cost to you. You will receive $2 for your participation. If you have questions while taking part, please stop and ask.

You will remain anonymous.

If you would like to talk with someone about your rights of being a subject in this research study or about ethical issues with this research study, you may contact the FIU Office of Research Integrity by phone at 305-348-2494 or by email at ori@fiu.edu.

Your participation in this research is voluntary, and you will not be penalized or lose benefits if you refuse to participate or decide to stop. You may keep a copy of this form for your records.

Appendix II: Measurement Indicators

Construct	**ID**	**Measure**	**Source**
		Public Satisfaction (PS)	
PS	PS1	I am satisfied with the way disaster related problems were dealt with and resolved during the disaster response	(Mata et al., 2023)
	PS2	I am satisfied with the treatment given by government disaster response staff involved in resolving the disaster related problems.	
	PS3	I am satisfied with the procedure and the resources used to solve disaster related problems during the disaster response	
	PS4	I am satisfied with the government's ability in responding to the disaster	
	PS5	My overall satisfaction with government disaster response services is excellent.	
		Community Preparedness/Level of Preparedness (CP)	
CP	CP1	I have a Disaster/Emergency Plan	(Shannon, 2015)
	CP2	I know how to find the emergency broadcast channel on the radio	
	CP3	I have an emergency preparedness kit in my home	
	CP4	I have an emergency preparedness kit in my car	
	CP5	I have an emergency preparedness kit at my job	
	CP6	I have an emergency preparedness/evacuation plan	
	CP7	I have a home emergency/evacuation plan that includes instructions on what to do and where to go in the event of a disaster	
		Disaster Situation (DS)	
DS	DS 1	The extent to which my daily life was affected	(Mata et al., 2023)
	DS 2	The extent to which my work and/or studies was affected	
	DS 3	The extent to which my social interactions affected.	
	DS 4	The extent to which my social interactions affected.	
	DS 5	The extent to which my psychological state was affected.	
	DS 6	The extent to which my family and friends were affected.	
		Assurance (AS)	

AS	AS 1	During the Disaster, the government gave me a sense of security.	(Mata et al., 2023)
	AS 2	During the Disaster, the government made me feel safe	
	AS 3	During the disaster, the government disaster response staff were knowledgeable enough to answer my questions.	
	AS 4	During the disaster, the government disaster response team were consistently courteous.	
		Reliability (REL)	
REL	REL1	Government Disaster response services during the last disaster were dependable	(Mata et al., 2023)
	REL2	Government disaster response services were provided as promised	
	REL3	Government disaster response services were provided at the promised time.	
	REL4	Government disaster response services were performed right the first time	
		Expectation (EX)	
EX	EX 1	My expectation of the speed of government disaster response services was met.	(Mata et al., 2023)
	EX 2	My expectation of the effectiveness of the government's disaster response services was met.	
	EX 3	My expectations for the government's response to the disaster, in terms of its magnitude, was met.	
	EX 4	My expectation of the professionalism of the government disaster response team was met.	
	EX 5	My expectation of the professionalism of the government disaster response team was met.	
RES		*Response (RES)*	
	RES1	The government Disaster response team staff responded as quickly as possible.	(Mata et al., 2023)
	RES2	Despite the trouble caused by the disaster, the government responded adequately	
	RES3	The government disaster response staff were prepared to respond to citizen's requests.	
	RES4	The government disaster response team staff kept the citizens informed about what services will be performed	
	RES5	The government disaster response team staff were willing to help the citizens.	
GI		*Government Image (GI)*	
	GI1	The government response team demonstrated both responsibility and accountability in delivering disaster	(Mata et al., 2023)

		response services.	
	GI2	The government made relevant information public	
	GI3	The government showed its commitment towards society by improving the welfare of the communities	
	GI4	The government maintained the quality of its services	
	GI5	The government makes decision that serves the best interest of the affected community	
		Distributive Justice (DJ)	
DJ	DJ1	I think the allocation and distribution of government resources were fair	(Mata et al., 2023)
	DJ2	The affected citizens benefited from the government's services like relief supplies and cash in kind assistance	
	DJ3	The government disaster response services were sufficient to meet my needs.	
	DJ4	The assistance was prioritized for those who needed it most.	
		Procedural Justice (PJ)	
PJ	PJ1	The government showed adequate flexibility in dealing with disaster related problems	(Mata et al., 2023)
	PJ2	The government handled the situation fairly with regard to its policies and procedures	
	PJ3	The government has effective policies and protocol in place to address disasters	
	PJ4	Citizens were given an opportunity to voice out their disaster related concerns	
	PJ5	Citizens were given an opportunity to engage in a disaster related decision-making process.	

VITA

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Doctorate in Business Administration (Expected June 2025)
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