

Managing Expectations or Delivering Performance? Testing the Expectancy-Disconfirmation Model in Public Service Responsiveness

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ABSTRACT

This study investigates the influence of expectation and perceived performance on citizen satisfaction within the framework of the Expectancy-Disconfirmation Model (EDM) with a focus on the responsiveness dimension of public services. The objective of this study is to examine the direct and indirect relationships between expectation, perceived performance and citizen satisfaction. Data were collected from 405 valid responses from Malaysian citizens aged 18 and above using a structured questionnaire distributed via Google Forms employing a snowball sampling technique through social media platforms. The data were analyzed using Structural Equation Modelling (SEM) with AMOS to examine the hypothesized direct and indirect relationship between independent variables, mediating and dependent variable. The findings reveal that both expectations and perceived performance have a significant direct impact on satisfaction. Furthermore, disconfirmation was found to be a significant partial mediator, transmitting the effects of both expectations and perceived performance on satisfaction. These results underscore the importance of managing expectations and consistently delivering high-quality service to ensure citizen satisfaction. EDM affects academic research and public management. Incorporating citizen expectations and analyzing the psychological foundations of personal normative expectations can enhance the predictive capacity of the EDM. Future research should incorporate other mediating factors to enhance the understanding of how expectation influence satisfaction. The concept can assist public administrators and policymakers in effectively managing expectations and improving service delivery experience, thereby enhancing citizen satisfaction and fostering trust in public institutions. This study is limited by its reliance on snowball sampling, potential self-reporting bias and a focus on single dimension. The cross-sectional design further restricts causal interpretations. Future research should adopt more representative sampling, examine additional mediating factors and citizen-centric approach and apply longitudinal study to capture the changes in satisfaction overtime.

Keywords— Expectancy-Disconfirmation Model (EDM), Perceived performance, Expectation, Citizen satisfaction

INTRODUCTION

In the contemporary landscape of public administration, the pursuit of citizen satisfaction and trust has become a central objective of government worldwide. A cornerstone framework for understanding these outcomes is the Expectancy-disconfirmation model (EDM) which posits that satisfaction is a direct result of the discrepancy between an individual's initial expectations and their perceptions of actual performance. While extensively applied in the field of marketing and consumer behavior, the EDM offers a compelling lens through examining the dynamics of public service delivery [1]. Simultaneously, responsiveness has emerged as a critical metric of governmental efficacy [2]. It embodies the capacity of public agencies to listen to, understand and act upon the needs and demands of their citizens. This construct is not merely about service delivery; it encompasses the proactive and reactive behaviors that define the government-citizen relationship where it influences policy-making to complaint resolution [3][4][5].

Despite the distinct importance of these concepts, their intersection remains a emerging area of research in public administration [6][7]. This article seeks to bridge this gap by applying the expectancy-disconfirmation

model to the responsiveness construction. Citizens' satisfaction with public services is not solely determined by the quality of the service itself but it is fundamentally shaped by their pre-existing expectations on how responsive the government should be and their subsequent evaluation of the actual responsiveness they experience [8]. A positive disconfirmation means perceived responsiveness exceeds expectations therefore it can foster satisfaction, trust and loyalty meanwhile negative disconfirmation refers to actual performance fall short from citizen expectations thus leading to dissatisfaction and erosion of public trust [9].

LITERATURE REVIEW

Initial research exploring the predictors of citizen satisfaction often concentrated primarily on demographic characteristics such as age, gender, educational level and socioeconomic status [10][11] or objective measures of service quality status included quantifiable aspects such as structured performance metrics, multiple transparency and accountability indicator, multiple dimensional service quality framework and responsiveness and satisfaction ratings [12][13][14][15]. Earlier research has demonstrated that they are often inadequate and a more holistic approach incorporating psychological insights, subjective evaluations and contextual factors is required to adequately capture the multitude of influences on citizen satisfaction.

The Expectancy-Disconfirmation Model (EDM) is a theoretical framework widely recognized in the fields of marketing and consumer behavior. This model posits that consumer satisfaction is largely determined by the gap between expectations and perception of actual performance of a product or service. Developed by [16], suggests that consumers form satisfaction judgements through comparison of their prior expectations with their actual experiences. The key components of EDM include expectations, perceived performance and disconfirmation. Expectations are the anticipations of beliefs that consumers hold regarding a product or service prior to its usage, and it can be shaped by past experiences, marketing communications and social influences [9]. On the other hand, perceived performance is the evaluation of the actual experience that consumers have after receiving the product or service and it may not align with the objective quality which emphasizes the subjective nature of satisfaction [17]. Whilst disconfirmation refers to the discrepancy between expectations and perceived performance. A positive disconfirmation refers to actual performance exceeding expectations, a negative disconfirmation denotes performance falling short and zero disconfirmation represents performance meets expectations [18] (Oliver, 1994). The outcome indicated that positive disconfirmation results in high satisfaction [1][17][19][20][21].

Citizen satisfaction is happiness or contentment based on an experience with the service/goods/process/programs provided by government bureaucracies and administrative institutions [22]. In order to measure citizen satisfaction, this study employed perceptual measures, using 34 items survey instrument developed by [23] [24].

The concept of responsiveness in public administration pertains how effective government entities respond to the needs, expectations and citizen concerns [25]. This perspective supports the notion that measuring government responsiveness through citizen feedback, a meaningful interaction and adapting their operation accordingly [26]. Citizen satisfaction is not solely about service quality but also how well citizens feel about their inputs are valued and acted upon [27]. Most studies on responsiveness construct are closely with service quality [28][29][30][31].

Research Objective

This article investigates the relationship between expectation, perceived performance and citizen satisfaction within the context of responsiveness. The study aims to contribute to understanding citizen perceptions and satisfaction are formed which is crucial for improving public administration and governance. The current body of research has focused on limited attributes of citizen expectations and the role of e-government and service quality in public service delivery. This study attempts to address the gap in citizen satisfaction research by examining the impact of a responsiveness on citizen satisfaction by applying EDM. In previous research the relationship between expectation and perceived performance on citizen satisfaction has been emphasized as means of influencing internal and external factors [1][27][32][33][34][35][36]. Therefore, this study seeks to test relationships and guided by one objective and five hypotheses.

Research Objective - To examine relationship between expectation, perceived performance and citizen satisfaction.

H1: There is a significant relationship between expectation and citizen satisfaction.

H2: There is a significant relationship between perceived performance and citizen satisfaction.

H3: There is a significant relationship between expectation and disconfirmation.

H4: There is a significant relationship between perceived performance and disconfirmation.

H5: There is a significant relationship between disconfirmation and citizen satisfaction.

Conceptual Framework

This study adopts the Expectancy-Disconfirmation Model (EDM) developed by [16] as a guiding conceptual framework.

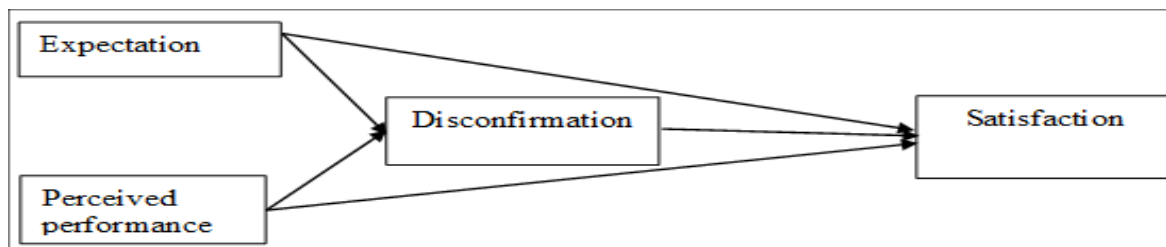


Fig. 1 The Expectancy-Disconfirmation Model [16]

METHODOLOGY

This study employed a quantitative study grounded in Expectancy-Disconfirmation Model (EDM) to examine to examine responsiveness perceptions among Malaysian citizen aged 18 years and above. Users of public service and non-users tend to have different opinions about public services [23] which is the primary reason why they are used as the sample population in investigating satisfaction. Data collected using a structured questionnaire distributed via Google Forms by applying a snowball sampling technique to reach a broad respondent base. Based on [35], a minimum of 385 sample size was required however, a total of 416 responses were received. Following data cleaning, 405 valid responses were retained for analysis, ensuring sufficient representation for the study objectives. Table 1 shows the survey has 4 sections. Section A and B were identical questions measuring expectations and perceived performance respectively which consist of 9 items for responsiveness. Section C has 1 item for disconfirmation. Section D has 13 items on citizen satisfaction. In this study, all constructs, expectations, perceived performance, disconfirmation and satisfaction were assessed using 10-point scale with scale labels adapted to align with the specific conceptual dimension being measured. Citizen satisfaction scales ranging from 1 (completely dissatisfied) to 10 (completely satisfied) indicate the level of satisfaction toward government performance. On the other hand, expectations will be measured by ranging 1 (low expectation) to 10 (high expectation) to indicate their attitude toward government services. Meanwhile, perceived performance scale ranging from 1 (very poor), to 10 (excellent) to indicate citizen assessment on actual public services they received. Meanwhile, disconfirmation will be measured by ranging 1 (fall short of expectation) to 10 (Exceed expectation).

TABLE I DISTRIBUTION OF ITEMS IN THE SURVEY

Num	Appearance		
	Construct variables	Section	Total items
1	Expectation (EX)	A	9
2	Perceived performance (PP)	B	9

3	Disconfirmation (D)	C	2
4	Citizen satisfaction (CS)	D	13

TABLE 2RELIABILITY OF THE SURVEY

Num	Appearance		
	Construct variables	Cronbach's alpha	Total items
1	Expectation (EX)	0.989	9
2	Perceived performance (PP)	0.993	9
3	Disconfirmation (D)	0.966	2
4	Citizen satisfaction (CS)	0.980	13

Table 2 shows that Cronbach's Alpha coefficient value of all constructs ranged between .966 and .993. It showed that Cronbach's Alpha values of all variables exceeded the acceptable standard of reliability analysis ($\alpha < 0.70$), indicating that the items have acceptable and good internal consistency [36][37].

TABLE 3 HYPOTHESIZED CONFIRMATORY FACTOR ANALYSIS

Num							
	Construct variables	χ^2	χ^2/df	GFI	CFI	RMSEA	
1	EX	95.451	4.545	.952	.991	.094	
2	PP	62.776	2.989	.967	.995	.070	
3	D	7.495	3.748	.993	.998	0.82	
4	CS	1564.792	3.589	.806	.955	.080	

Table 3 shows the assessment of the initial results of Confirmatory Factory Analysis (CFA) indicate all 9 items of expectation (EX), 9 items of perceived performance (PP), 2 items of disconfirmation (D) and 13 items of citizen satisfaction (CS) displayed factor loadings of construct and sub-construct greater factor loadings (≤ 50), suggesting that the items achieved uni-dimensional validity and were correlated to the latent construct. Based on the Modification Indices (MI), the high value of MI (above 15) indicated redundant items in the model. It also suggested that the model requires re-specification, through factor correlation, to improve its fitness.

FINDINGS

These findings were analyzed using Structural Equation Modelling (SEM) with AMOS to examine the hypothesized direct and indirect relationship among expectation on responsiveness (EXR), perceived performance on responsiveness (PPR), disconfirmation on responsiveness (DR) and satisfaction (SAT). Path analysis was employed to test the strength and significance of this relationship in responsiveness dimension thus providing empirical insights into how the constructs interact within Expectancy- disconfirmation Model (EDM). The results are presented in Table 3.

TABLE 4 THE RELATIONSHIP BETWEEN EXPECTATION AND PERCEIVED PERFORMANCE ON CITIZEN SATISFACTION

Num	Direct relationship				
	Construct variables	β (standardized)	S.E	C.R..	p-value
1	EX - CS	.332	.063	4.738	***
				>1.96	<0.001
2	PP - CS	.283	.064	4.042	***

				>1.96	<0.001
	Indirect relationship				
3	EX - D	.465	.041	11.152 >1.96	*** <0.001
4	PP - D	.467	.042	11.205 >1.96	*** <0.001
5	D - CS	.178	.066	2.430 >1.96	.015 <0.05

The results presented in Table 4 provide empirical support for the EDM in the context of responsiveness dimensions. The direct path analysis indicates expectation ($\beta = .332$) has stronger positive influence on satisfaction compared to perceived performance ($\beta = .283$). These findings highlight the centrality of citizens' prior expectations in shaping their satisfaction levels [1], underscoring the role of cognitive benchmarks as emphasized in EDM framework [16]. This finding is consistent with the work displayed by [38][39][40] indicating that public satisfaction is directly affected by public expectation. Although perceived performance contributes significantly, the direct effect is slightly weaker than citizen expectation.

Responsiveness directly influences contentment with public services [6]. [41] emphasize responsiveness is paramount in determining service quality thus significantly affecting their perception of service they receive. Moreover, [7] identifies responsiveness as an essential citizen-centric approach that contributes positively to citizen satisfaction. Additionally, [42] argue that government responsiveness is crucial to foster public trust and satisfaction for e-governance initiatives.

Expectation of citizens toward government responsiveness plays a role in disconfirmation, underscoring the necessity of aligning public service interactions with citizens' expectations. The overall satisfaction of citizens increases when they feel that their expectations are fulfilled through responsive interactions with government agencies [43]. Enhanced communication is essential for addressing negative perceptions and elevating citizens' expectations of responsiveness, especially within law enforcement settings [44]. This is consistent with the expectancy-disconfirmation theory, highlighting the importance of managing expectations via strategic communication to improve satisfaction levels [45]. Additionally, providing citizens with information regarding the performance of public services has demonstrated an influence on their expectations and satisfaction, thereby fostering enhanced accountability and responsiveness within public administration [46]. The gathered insights collectively underscore the significance of responsiveness in shaping disconfirmation, as it ensures that public services align with or surpass citizen expectations through efficient and transparent communication.

In terms of indirect relationships, expectation ($\beta = .465$) and perceived performance ($\beta = .467$) both demonstrated a strong and significant effects on disconfirmation. This result indicates that citizens' perception of responsiveness are shape jointly by what they expect and how they experience performance. However, disconfirmation exerted a smaller but significant positive effect on satisfaction ($\beta = .178$). This shows that total effect of perceived performance on satisfaction. Therefore, these findings support the proposed hypothesis 3, 4 and 5.

All paths in the model are significant and support the EDM framework. Expectations and perceived performance directly influence satisfaction and both construct also have a significant indirect effect by shaping disconfirmation and influence satisfaction. The stronger standardized coefficients for the paths leading to disconfirmation suggest that expectation and perceived performance play a very strong role in creating a perceived gap. The fact that both the direct and indirect paths are significant and contribute to the total effect is definitive evidence of partial mediation. The study by [47] underscores the importance of clearly conveying findings related to mediation pathways to advance the existing literature. Research indicates disconfirmation whether positive or negative play a significant role in determining satisfaction however the strength and nature of this relationship can vary based on contextual factors [48][49][50][51].

CONCLUSION

This study successfully applied the Expectancy-Disconfirmation Model (EDM) to analyze the determinants of citizen satisfaction within the context of responsiveness. The findings based on SEM-AMOS path analysis provide compelling evidence for model's validity and the significant roles of expectation, perceived performance and disconfirmation. This study revealed that both expectation and perceived performance directly and significantly influenced citizen satisfaction. This confirms citizens' pre-existing beliefs and the actual service they receive are key drivers of their satisfaction. Furthermore, the study confirms that disconfirmation acts as a partial mediator within this relationship. These findings underscore the cognitive process of evaluating performance in relation to expectation serves as an essential although not only way to achieve satisfaction. The significant indirect effects highlight when perceived performance exceed citizen's initial expectations (positive disconfirmation), it lead to a notable increase in satisfaction.

The theoretical and practical implications of the Expectation-Disconfirmation Model (EDM) are significant for both academic research and applied public administration. Theoretically, EDM can be refined by incorporating broader categories of citizen expectations, thereby enhancing the model's predictive capacity. The study extends the applicability of EDM to public service responsiveness; performance is believed to be critical yet setting expectations and alignment are equally essential for fostering citizen satisfaction. From a practical standpoint, applying the EDM allows for improved service delivery and policy development by highlighting performance gaps and guiding administrators to enhance areas where expectations are not met. Furthermore, the model can inform the design of systemic feedback mechanisms and training programs, empowering public sector employees and policymakers to manage realistic expectations and tailor services more effectively, ultimately fostering greater citizen satisfaction and trust in public institutions.

This study limitations of using snowball sampling through social media platforms may have produced a non-representative Malaysian sample, limiting generalizability. Self-reported Google Forms data may be vulnerable to social desirability bias. Besides, focusing primarily on responsiveness limits citizen satisfaction as other key factors were ignored. Finally, cross-sectional design hinders causality and unable to track changes overtime. Future research should adopt different approaches by incorporating a broader range of service quality dimensions or citizen-centric approach for more comprehensive understanding. Investigating other mediating factors could provide deeper insights into the relationship between expectation-satisfaction. Lastly, using more robust sampling methods would enhance the generalizability of the results to a wider population.

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