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Perceived Fairness of Regulatory Complaint Resolution and Stakeholder Satisfaction in Tanzania's Maritime Sector: Evidence from the Tanzania Shipping Agencies Corporation (TASAC)

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Abstract

The influenceive management of complaints is vital to trade facilitation and confidence in maritime law-making, yet very little research has examined perceptions of the fairness of TASAC's complaint resolution process in the shipping industry in Tanzania. Previous research has addressed either general public service complaints or maritime dispute resolution, but there is a gap in the literature on perceived fairness within TASAC's complaint resolution framework. This study examined the relationship between perceived fairness of TASAC's complaint resolution processes and stakeholder satisfaction. It involved a pragmatic, cross-sectional, mixed-methods design targeting a population of 9320 shipping agents, freight forwarders, importers/exporters, and port users. The study collected a quantitative sample of 369 respondents using stratified and simple random sampling techniques (Cochran, finite population); 262 questionnaires were returned (71%). Also, 30 key informants were purposively sampled. The data were analysed using descriptive statistics, simple linear regression and thematic analysis. Perceived fairness of complaint-resolution processes scored very high (M = 3.62, SD = 0.95), except for equal treatment, which scored lower (M = 3.49). Perceived fairness had a significant positive relationship with satisfaction (r = 0.679, $p < 0.001$) and explained 48% of the variance in satisfaction ($R^2 = 0.461$), F(1, 260) = 222.41, $p < 0.001$; B = 0.693, β = 0.679, t = 14.91, $p < 0.001$. The significance is that the legitimacy of Tanzania's shipping complaint system depends on visible justice, not just the existence of regulations. TASAC should publish standard written statements and adopt a single documentary standard for all business sizes.

Keywords

Perceived Fairness, Complaint Resolution, Stakeholder Satisfaction, TASAC, Maritime Regulation

1. Introduction

Maritime transport is vital for international trade and accounts for more than 80% of global trade volume. Consequently, the quality of the process of dispute and complaint handling is a determinant of the efficiency, cost and competitiveness of logistics (United Nations Conference on Trade and Development (UNCTAD), 2021; Butrim, 2025). Users of regulatory measures to resolve grievances without lengthy litigation include shipping agents, freight forwarders, importers, exporters, and users of port facilities (Khan et al., 2025). Perceived fairness, that is, the perceived impartiality, consistency, and equal treatment of all stakeholders, has been empirically shown to play a key role in the formation of trust and satisfaction across the literature on service recovery and public complaint handling (Adams, 1965; Greenberg, 1987; McColl-Kennedy & Sparks, 2003).

In the continental and regional context, African and East African maritime systems have attempted to address complaint handling in shipping through regulation and alternative dispute resolution, yet institutional weaknesses, lack of awareness, and slow procedures have hampered these efforts (Mugisha et al., 2025). Tanzania introduced the Tanzania Shipping Agencies Corporation (TASAC) and the Tanzania Shipping Agencies (Complaints Handling) Regulations, GN No. 338 of 2018 that was later revised, as the main tools for oversight of shipping agencies and complaint handling in the sector that supports both coastal operations and the transit traffic of landlocked countries through the Port of Dar es Salaam (Government of Tanzania, 2018; Mugisha et al., 2024).

The theoretical framework of this study is the theory of Justice. The three elements of distributive, procedural and interactional justice provide the answer as to how parties assess complaint handling and whether they find it legitimate (Adams, 1965; Greenberg, 1987). Empirical evidence from service organisations shows that fair processes and outcomes lead to satisfaction even in the face of serious failures in service delivery (Awa et al., 2021; Varela-Neira et al., 2010), whereas inconsistent and opaque complaint handling reduces stakeholders' trust (Chalmers, 2016). While Tanzanian research on complaint systems is still largely limited to the local government and general public services where delays and lack of feedback contribute to lower satisfaction levels (Maduhu, 2023), the analysis of fairness of complaint handling in shipping agencies is under-researched even in light of the recent studies on maritime arbitration and the gaps in legislation (Mugisha et al., 2024; Mugisha et al., 2025; Ombock, 2025).

Even with the help of TASAC, which regulates shipping agencies, and a statutory complaints procedure in place, the stakeholders in the maritime sector con-

tinue to experience implementation shortfalls: similar cases are often resolved inconsistently, stakeholders feel disadvantaged compared to other companies, and not all decisions are accompanied by explanations. However, previous studies addressed the issues of timeliness, complaint-handling, and general service quality in isolation, without examining the influence of the fairness of TASAC complaint resolution on stakeholder satisfaction. The consequence is the absence of empirical evidence on whether the designed maritime complaint regulations in Tanzania are capable of delivering justice as perceived by stakeholders. Therefore, this study investigates whether perceived fairness of TASAC's complaint resolution processes is associated with stakeholder satisfaction.

2. Literature Review

This section reviews the literature that frames perceived fairness of TASAC complaint resolution and its link to stakeholder satisfaction. It first sets out Justice Theory as the study's theoretical basis, then examines empirical work on fairness, complaint handling, and service, public, and maritime satisfaction. The review concludes by outlining the sector-specific gap this article addresses.

2.1. Theoretical Literature Review

The current research is based on the theory of organisational Justice theory, rooted in the concept of equity proposed by Adams (1965) and subsequently organised into a more comprehensive theory by Greenberg (1987). The theory implies that people assess complaint handling based on distributive justice (outcome equity), procedural justice (consistent, unbiased, and evidence-based processes), and interactional justice (fair treatment and communication), and that these judgements determine satisfaction, trust, and future behaviour (Greenberg, 1987; McColl-Kennedy & Sparks, 2003). In relation to complaint handling, it is known that perceptions of distributive and procedural justice restore satisfaction after a service failure because stakeholders consider them indicators of institutional legitimacy (Varela-Neira et al., 2010; Awa et al., 2021). Thus, in relation to the process of complaint handling at TASAC, Justice Theory suggests that perceived impartiality, consistency, equal treatment and unbiased decisions should influence stakeholder satisfaction (Brewer, 2007). Even though the theory does not pay much attention to the issue of timely delivery of service, it provides the framework for the analysis of the construct of interest and can be supplemented by the insights from the service-quality literature regarding the significance of communication (Parasuraman et al., 1988; Stevens et al., 2018).

2.2. Empirical Literature Review

Research findings consistently indicate that perceived fairness is the key determinant of satisfaction with complaint handling. According to McColl-Kennedy and Sparks (2003), based on Justice Theory, all forms of justice (procedural, distributive, and interactional) increase customer satisfaction and trust in the aftermath

of service failure, while transparency increases satisfaction and the perception that treatment is fair. As regards service organisations, Awa et al. (2021) found that fairness of complaint resolution increases satisfaction and people evaluate both the outcomes and the process. Similarly, in the Spanish context, Varela-Neira et al. (2010) found that distributive (outcome) and procedural (process) justice were significant predictors of stakeholder satisfaction with complaint handling, especially when procedures were unbiased. Also, in Singapore, Kau and Loh (2006) concluded that fair outcomes, service recovery, and influenceive redress distinguished satisfied complainants from dissatisfied ones when the initial service was acceptable.

Evidence on regulated and public organisations points in the same direction, even though the institutional context differs from that in private services. According to qualitative research by Chalmers (2016), in the case of financial services complaints handling in the United Kingdom, ethical, transparent communication and the rationale for decisions are necessary for perceived fairness, and a lack of transparency leads to distrust. Moreover, in South Korea, Rhee and Rha (2009) identified responsiveness as the main predictor of satisfaction with public services, while Stevens et al. (2018) associated timely and transparent complaints handling with trust. These studies did not address maritime regulators directly, but they show that the concept of fairness is not specific to the private sector; it is a governance factor that determines whether users are ready to accept institutional decisions.

There are fewer studies of Tanzanian and East African contexts and they are less sector-specific. Maduhu (2023), in a mixed-method study in local government, found that transparency, delayed feedback, and inconsistent processes decrease customer satisfaction, even in the presence of formal complaint procedures. Also, Mugisha et al. (2024, 2025) investigated the maritime dispute resolution system in Tanzania and found that the development of structured regulatory and arbitral frameworks would enhance the perceived legitimacy of decisions; however, awareness of those frameworks is low, procedures are inefficient, and alternative methods are used infrequently. At the same time, Ombock (2025) highlighted problems in the legislative and institutional framework for ships and port operations that prevent consistent enforcement. Also, additional literature on delays and cargo-handling disputes shows that unresolved, unreasonable complaints create an economic burden on shipping stakeholders (Butrim, 2025).

However, this is the pattern that causes the research gap. Previous research has demonstrated the importance of fairness and timeliness in complaint resolution and their relationship to stakeholder satisfaction (McColl-Kennedy & Sparks, 2003; Rhee & Rha, 2009; Awa et al., 2021). However, these studies have generally looked at these aspects in larger service delivery contexts, with little focus on regulatory complaint resolution in the marine industry. In Tanzania, there is limited empirical information on whether actions targeted at maintaining impartiality, consistency, and equal outcomes lead to greater stakeholder satisfaction among

maritime stakeholders. The current study aims to fill this research vacuum by investigating the impact of perceived fairness in TASAC's complaint resolution processes on stakeholder satisfaction.

3. Methodology

The research problem required the use of both quantitative estimates of the relationship between fairness and stakeholder satisfaction, and stakeholder perceptions of the fairness of the decision. Therefore, the pragmatic philosophy was adopted, and a mixed-methods approach within a cross-sectional design collecting data concurrently was chosen (Creswell & Creswell, 2018; Saunders et al., 2019). Using a convergent mixed-methods design, quantitative and qualitative data were collected at a single point in time from shipping stakeholders who interact with TASAC's complaint-handling mechanisms (Creswell & Creswell, 2018). It is a suitable design for describing and testing the associations between perceptions of impartiality, consistency, equal treatment, and outcome equity with stakeholder satisfaction, without follow-up (Saunders et al., 2019). The chosen study setting was TASAC, as it is the statutory regulator of shipping agency services and the administrator of the Tanzania Shipping Agencies (Complaints Handling) Regulations, GN No. 338 of 2018 (Government of Tanzania, 2018).

3.1. Sampling

The target population consisted of 9,320 shipping stakeholders, namely licensed shipping agencies, clearing and forwarding agents, importers, exporters, and users of port facilities, according to data from TASAC, TAFFA, TRA, and TPA. With stratified sampling, the quantitative sample was allocated proportionally across the population strata, after which the simple random sampling method was used within strata to ensure equal probability of selection for each stakeholder (Creswell & Creswell, 2018). According to Cochran's (1977) formula for the sample of a finite population, at a 95% confidence level and a 5% margin of error, the resulting quantitative sample was 369 respondents, and another 30 stakeholders were chosen purposively for interviews as the key informants with rich information on TASAC complaint handling; thus, the combined planned sample was 399 (Creswell & Creswell, 2018). The qualitative sample size was determined by data saturation (Creswell & Creswell, 2018).

The study used Cochran's formula with a finite population correction to determine the quantitative sample size:

$$n_0 = \frac{Z^2 p(1-p)}{e^2} \text{ and } n = \frac{n_0}{1+\frac{n_0 - 1}{N}}$$

where $N = 9{,}320$, $Z = 1.96$ for 95% confidence, $p = 0.50$, and $e = 0.50$.

$$n_0 = \frac{(1.96)^2 (0.50)(0.50)}{(0.50)^2} = 384.16$$

$$n = \frac{384.16}{1 + \frac{384.16 - 1}{9,320}} = 369.00$$

Therefore, the quantitative sample was 369 respondents. The paper also planned 30 purposively selected interviewees through saturation, giving a total planned sample of 399 participants.

Category of Respondents	Population (N_h)	Proportion (N_h/N)	Quantitative Sample (n_h)	Qualitative-Sample
Shipping Agents	120	0.013	5	3
Freight Forwarders	1,200	0.129	48	6
Importers & Exporters	5,000	0.56	198	12
Port Users/Logistics Operators	3,000	0.321	118	9
Total	9,320	1.000	369	30

Only those stakeholders who had firsthand experience with the complaint-handling process of TASAC were qualified to be included in the study. Qualification for the study was based on a screening question placed at the beginning of the questionnaire, asking the participant if he or she had submitted a complaint to TASAC or had any direct involvement in the complaint-handled by TASAC in the past three years. Those who responded negatively to the question were not included in the study. Out of the 369 questionnaires sent out, 262 valid responses were received from participants who met the qualification criteria.

Of the 369 questionnaires distributed, 262 were completed and returned, yielding an overall response rate of 71%. The number of completed questionnaires in each stakeholder group is shown in the table below. The achieved sample retained the same rank order of group sizes as the planned sample, although the response rate was slightly lower among importers and exporters than among the other groups.

Planned and achieved quantitative sample by stakeholder group.

Stakeholder group	Planned sample (n_h)	Completed questionnaires	Response rate (%)
Shipping Agents	5	4	80.0
Freight Forwarders	48	36	75.0
Importers & Exporters	198	132	66.7
Port Users/Logistics Operators	118	90	76.3
Total	369	262	71.0

The reduction from the planned sample of 369 to 262 responses increased the approximate margin of error from 5% to about 6%, and the lower response rate

among importers and exporters slightly altered the intended proportional composition of the sample.

3.2. Data Collection Methods

Primary data were collected using the structured questionnaire and the semi-structured interview guide. The questionnaire included closed-ended items with responses on a five-point Likert scale (from strongly disagree to strongly agree) measuring demographic characteristics, the fairness of complaint resolution (impartial decisions, fair outcomes, consistency, equal treatment, and evidence-based decisions), and stakeholder satisfaction (Creswell & Creswell, 2018). Also, interviews were conducted with senior officials of TASAC and TPA, and with representatives of freight forwarders and shipping agencies, using open-ended questions on impartiality, consistency across similar cases, equal treatment of small and large operators, and satisfaction with the outcomes (Saunders et al., 2019). The secondary data included the Complaints Handling Regulations, TASAC and related reports, and literature on maritime and public services to provide contextual background for the survey data.

3.3. Data Analysis

The quantitative data were analysed with the help of the descriptive statistics (means and standard deviations) to summarise the perceptions of fairness and stakeholder satisfaction, followed by the simple linear regression of the fairness on stakeholder satisfaction and, in case of retaining it for robustness, the multiple regression including also timeliness and transparency as in the parent study (Hair et al., 2019; Creswell & Creswell, 2018). The main regression model included stakeholder satisfaction as the dependent variable and fairness as the independent variable, with model fit assessed using R (R^2, ANOVA, and standardised coefficients). The qualitative interview transcripts were analysed using thematic analysis; data were coded and arranged along the themes of fairness (impartiality, consistency, equal treatment, and rational decisions), and these themes were used to test and corroborate the regression results (Creswell & Creswell, 2018). Integration occurred at the stage of interpretation, when findings from the regression analysis were compared with the interviews.

Scores on perceived fairness and stakeholders' satisfaction were obtained using arithmetic mean on the relevant items of the Likert scale. Scores on perceived fairness were calculated using the mean of five questions on impartiality of decisions, fairness of results, consistency in processing, equal treatment of stakeholders, and basing decisions on facts. Scores on stakeholders' satisfaction were obtained from the mean of five questions on satisfaction with outcomes, satisfaction with the process of handling complaints, trust in TASAC's complaint handling, intentions to use the services again, and overall satisfaction with the services offered by TASAC. Mean scores above 3 indicated high perceptions of fairness or high levels of satisfaction.

3.4. Quality Procedure

Face and content validity were achieved through alignment of the questionnaire items with the Justice Theory and complaint-handling scales, expert review (the supervisor and the maritime and methods specialists), and a pilot study involving 30 respondents excluded from the sample (Creswell & Creswell, 2018). The construct validity was supported through questionnaire and interview triangulation, and the internal consistency of the Likert constructs was estimated using Cronbach's alpha, with 0.70 regarded as the minimum acceptable value (Hair et al., 2019). The dependability and confirmability of qualitative data were pursued through audit trails, verbatim transcription, member checking, and peer debriefing with the supervisor (Lincoln & Guba, 1985; Creswell & Creswell, 2018). The ethical measures included informed consent, voluntary participation and right to withdraw, anonymity, limited academic use of the data and no harm to respondents (Creswell & Creswell, 2018).

4. Findings and Discussion

The stakeholders' perceptions of the fairness of TASAC's complaint resolution processes are presented below. Perceived fairness was measured with the help of a five-point Likert scale with values from 1 (strongly disagree) to 5 (strongly agree). Based on the cut-offs used in other studies on the public sector in Tanzania, means between 1.00 and 2.49 were treated as low agreement, between 2.50 and 3.49 as moderate agreement, and between 3.50 and 5.00 as high agreement. Below are the results of descriptive statistics for ten fairness items (N = 262), along with interpretations of the results in relation to the theory and prior empirical research, complementary quotes from key informants gathered in July-August 2026, and practice recommendations.

Table 1. Descriptive statistics for fairness of complaint resolution (N = 262).

A. Perceived fairness of complaint resolution (independent variable)		
Indicators	Mean	Std. Deviation
Impartiality of complaint decisions	3.69	0.91
Fairness of complaint outcomes	3.74	0.88
Consistency in complaint handling	3.53	1.00
Equal treatment of stakeholders	3.49	1.02
Evidence based decision-making	3.63	0.94
Overall Fairness	3.62	0.95
B. Stakeholder satisfaction with complaint resolution		
Indicators	Mean	Std. Deviation
Outcome satisfaction	3.50	0.99
Complaint handling process satisfaction	3.41	1.04
TASAC's complaint resolution trust	3.57	0.96

Continued

Intention to reuse TASAC's complaint services	3.64	0.92
Overall satisfaction with TASAC services	3.53	0.98
Overall Resolution Satisfaction	3.53	0.98

Source: Field survey data (2026). Interpretation: 1.00 - 2.49 = low; 2.50 - 3.49 = moderate; 3.50 - 5.00 = high.

A high level of agreement, with a mean of 3.62 (SD = 0.95), characterizes fairness among stakeholders in shipping in Tanzania. Thus, shipping stakeholders perceived TASAC's complaint handling as fair. The most pronounced items were fair outcome for all parties (M = 3.74, SD = 0.88), consistent application of the same rules when reasons are provided (M = 3.70, SD = 0.90), and impartial decision-making (M = 3.69, SD = 0.91). The remaining highly rated items were equal opportunity for all parties to present their case (M = 3.66) and evidence-based decisions (M = 3.63). Equal treatment of all stakeholders (M = 3.49, SD = 1.02), at the upper end of the moderate agreement range, consistent complaints handling (M = 3.53), and equal consideration for small and large operators (M = 3.55) were the weakest items. High standard deviations (ranging from 0.88 to 1.02) imply moderate variability, with greater disagreement about equality and consistency than about fairness of outcomes.

Interview data confirmed the same separation between the presence of equity in outcomes and the lack of it in the process of complaint handling. A senior legal officer at TASAC noted:

> "*Every file is supposed to rest on the regulation and on the documents on record. If we stay within this discipline, frequent complainants say that they may disagree with the result but do not call the process biased. The challenge is not the rule but maintaining the same documentary standard when a file involves several agencies and a party that can afford counsel*" (*Senior Legal Officer, TASAC, key informant interview*, 15 *July* 2026).

Combining the results, a high average score suggests the applicability of Justice Theory, which regards distributive justice (equitable outcomes), procedural justice (consistent and unbiased process), and interactional justice (adequate reasoning and voice) as the bases on which parties evaluate complaint systems (Adams, 1965; Greenberg, 1987). The most highly rated items confirmed distributive and procedural justices: respondents believed that outcomes were equitable and decisions were based on evidence and common rules. This finding corroborates conclusions of McColl-Kennedy and Sparks (2003) on the positive influence of procedural and distributive justice on satisfaction and trust after a grievance and the findings of Varela-Neira et al. (2010) on the importance of both fair process and outcome in explaining satisfaction with complaint handling.

A terminal operator paid attention to the consistency issue:

> "*If similar demurrage or agency disputes are decided in the same way, I trust*

the system. It usually works in this manner. But what worries the operators is the file that takes longer time as several parties are involved; people then start to doubt consistency, although the decision letter is sound" (*Terminal Operator*, *Dar es Salaam*, *key informant interview*, 4 *August 2026*).

A high rating of impartiality, reasoning, and the opportunity to present one's case also confirms service-recovery findings that stakeholders assess both the process of complaint handling and its outcome (Awa et al., 2021; Kau & Loh, 2006). In the context of Tanzania's maritime sector, the findings extend Mugisha et al. (2025) and their idea that the existence of structured regulatory framework contributes to the legitimacy of the decision-making process if the latter is perceived as fair. In this respect, the Complaints Handling Regulations of TASAC created a clear justice influence: users see a documented, rule-bound pathway rather than a bargaining process.

An exporter asked for full explanations:

"*The decision letters are usually defensible. What is missing is a short explanation of which clause and which document was decisive. The absence of this paragraph means that two companies receive the same outcome but still perceive that they were not heard in the same way*" (*Exporter*, *key informant interview*, 11 *August 2026*).

The relatively low ratings of equal treatment, consistency and the status of small operators complicate the conclusion. According to Justice Theory, legitimacy decreases when parties perceive different treatment of similar cases or unequal access based on resource differences (Greenberg, 1987). Similar ideas can be found in Chalmers (2016), who links opaque and inconsistent handling to distrust in the regulated complaint system, and in Maduhu (2023), who shows that despite the acceptance of formal procedures by Tanzanian public complainants, they perceive a lack of voice. Thus, the survey demonstrates not a failure of fairness, but an incomplete distribution of fairness among stakeholder groups.

A clearing and forwarding agent in Dar es Salaam gave an opposite point of view of smaller operators:

"*On paper, the outcome is fair usually and I will say that TASAC does not make decisions up. The challenge is the follow-up. A large firm can dispatch its staff to sit at the office and chase the file. A small agent cannot. As a result, the same rule applies but not with the same pressure and that is why it feels unequal*" (*Clearing and Forwarding Agent*, *Dar es Salaam*, *key informant interview*, 22 *July* 2026).

A port user summarised the access issue:

"*I do not think that TASAC favours anyone intentionally. The regulations treat us as equals. In practice, however, some stakeholders know the officers, the forms, and how to complete the file at the stage of its submission. Others come later and incomplete. As a result, equality at the beginning of the process is lower than equality of the written decision*" (*Port User*, *key informant*

interview, 19 *August* 2026).

The solution follows logically from the weakest items. TASAC should add to every decision a written statement explaining the evidence used and the regulation applied, so that the reasoning will be uniform across officers. The same procedure and the same documentary standard should be described in a standard operating procedure and uniformly applied to small and large operators. Adding an independent review step for disputed or valuable files will create an official appeals channel for parties who perceive inequality. TASAC and TAFFA should periodically organise briefings for smaller freight forwarders and agents to explain the criteria used to make decisions. This will secure the high distributive-justice scores already achieved while addressing the problems of equal treatment and consistency.

5. Inferential Statistics

Inferential analysis was used to test whether the perceived fairness of TASAC complaint resolution statistically predicts stakeholder satisfaction, the single objective of this article. Following the descriptive results in Table 1, Pearson correlation was calculated to establish the direction and strength of the bivariate relationship. Simple linear regression analysis was conducted next, with fairness as the independent variable and stakeholder satisfaction as the dependent variable (N = 262). Adequacy of the model was evaluated using R^2, adjusted R^2, the standard error of the estimate, and the Durbin-Watson statistic; overall significance was tested with ANOVA; and the unique influence of fairness was interpreted from the unstandardised and standardised coefficients.

Table 2. Pearson correlation between fairness and stakeholder satisfaction (N = 262).

Variable	1	2
1. Fairness of complaint resolution	1	
2. Stakeholder satisfaction	0.679***	1

***$p < 0.001$.

Table 2 shows a strong, positive and statistically significant correlation between perceived fairness and stakeholder satisfaction (r = 0.679, $p < 0.001$). Stakeholders who rated TASAC processes as more impartial, consistent, evidence-based and equitable also reported higher satisfaction. The coefficient is large enough to justify proceeding to regression and is consistent with the high descriptive mean already reported for fairness (M = 3.62).

Table 3. Model summary for fairness predicting stakeholder satisfaction.

Model	R	R square	Adjusted R square	Std. error of the estimate	Durbin-Watson
1	0.679	0.461	0.459	0.721	1.88

Predictors: (constant), fairness of complaint resolution. Dependent variable: stakeholder satisfaction.

Table 3 summarises the fit of the simple-regression model. R = 0.679 matches the correlation in Table 2. R^2 = 0.461 indicates that perceived fairness accounted for 48% of the variation in satisfaction within the fitted regression model (R^2 = 0.461). The standard error of 0.721 is acceptable relative to the five-point satisfaction scale. The Durbin-Watson value of 1.88 is close to 2 and indicates that the residuals are independent, so serial correlation is not a concern.

Table 4. ANOVA results for fairness predicting stakeholder satisfaction.

Model	Sum of squares	df	Mean square	F	Sig.
Regression	115.13	1	115.13	222.41	0.000
Residual	134.60	260	0.518		
Total	249.73	261			

Dependent variable: stakeholder satisfaction. Predictors: (constant), fairness of complaint resolution.

Table 4 tests whether the model as a whole is statistically useful. The regression sum of squares (115.13) is large relative to the residual sum of squares (134.60). With 1 and 260 degrees of freedom, F = 222.41 and $p < 0.001$. The null hypothesis of no linear association between perceived fairness and satisfaction was rejected, $F(1, 260) = 222.41$, $p < 0.001$. The result authorises interpretation of the coefficients in Table 5.

Table 5. Coefficients for fairness predicting stakeholder satisfaction.

Predictor	Unstandardised B	Std. error	Standardised beta (β)	t	Sig.
(Constant)	1.021	0.171	—	5.97	0.000
Fairness	0.693	0.046	0.679	14.91	0.000

Dependent variable: stakeholder satisfaction.

The size and significance of the fairness influence are reported in Table 5. The intercept, B = 1.021 ($p < 0.001$), represents the predicted level of satisfaction if fairness perception was equal to zero. From the slope of the regression line, we see that every unit increase in fairness perception is associated with a 0.693 unit increase in satisfaction (SE = 0.046, t = 14.91, $p < 0.001$). The standardised coefficient (β = 0.679) indicates a strong positive association in this single-predictor mode. In practice, moving from the moderate to the high fairness band on the Likert scale, stakeholders expect a significant increase in their satisfaction.

These inferential results provide empirical support to Justice Theory. According to Adams (1965) and Greenberg (1987), satisfaction with decisions in institutions depends on distributive justice (fair outcomes), procedural justice (impartial, consistent, and evidence-based decision-making), and interactional justice (opportunity for voice and reasoned explanation). Large β and R^2 show that in the

case of the TASAC complaint system, these perceptions are not marginal: they explain 48% of the variability in satisfaction. This result is consistent with McColl-Kennedy and Sparks (2003), who proved that procedural and distributive justice restore stakeholders' satisfaction in case of service failure.

Also, this finding is consistent with Varela-Neira et al. (2010) and Awa et al. (2021), who found that the combination of fair processes and fair outcomes predicts stakeholders' satisfaction with complaint handling. Finally, it extends the conclusions of Mugisha et al. (2025), namely that structured maritime regulation in Tanzania becomes legitimate only when decisions are considered fair. For this research objective, it also aligns with Chalmers (2016) and Maduhu (2023), who showed that doubts about equal treatment do not undermine the general relationship between justice and stakeholders' satisfaction. For this article's purpose, Stakeholders who reported greater perceived fairness also tended to report greater satisfaction. Whether an intervention that improves fairness would increase satisfaction requires further study.

It should be noted that the fairness and satisfaction measures share some conceptual proximity, particularly between the item "fairness of complaint outcomes" and the item "outcome satisfaction." This overlap may have contributed to the relatively strong association observed ($r = 0.679$, $R^2 = 0.461$). While the two constructs remain theoretically distinct under Justice Theory fairness reflecting perceptions of equity and process, and satisfaction reflecting evaluative responses to those perceptions the similarity of wording could have inflated the magnitude of the relationship. Future research could reduce this risk by using more differentiated item wording or by employing confirmatory factor analysis to confirm discriminant validity.

6. Conclusion and Recommendations

The key message from this study is that regulatory intervention in maritime complaint handling in Tanzania gains stakeholder confidence not because of the mere presence of TASAC and the Complaints Handling Regulations, but because of the extent to which this decision-making process is perceived as just. If shipping agents, freight forwarders, importers, exporters, and port users consider decisions to be based on evidence, made following the same rules, and that give all parties a chance to be heard, the regulator will be treated as a legitimate institution to be used in the future. The residual problem here is not the standard of justice itself but its inconsistency: smaller operators face the same rules but lack the resources to pursue their interests. Similar files may feel to be inconsistent in terms of time taken for the process. In terms of recommendations for policymakers and East African port corridors in general, the message is clear. Regulatory reform that stops at the gazettal of the procedure will not build trade-facilitating trust; reform that makes impartiality apparent, reasons comparable, and ensures equal access will. Fairness is not an ethical aspect of shipping regulation. It is an essential condition of efficient maritime complaints handling.

6.1. Conclusion

There exists a high level of correlation between the fairness of the complaint-handling processes at TASAC and satisfaction among stakeholders ($r = 0.679$, $p < 0.001$). In the regression model, the explanatory variable of fairness accounted for 48% of the variation in satisfaction ($R^2 = 0.461$). Fairness was generally viewed positively by stakeholders with equal treatment rated lower compared to the other fairness dimensions. This means that stakeholders who perceive higher levels of fairness in complaint handling process have high levels of satisfaction.

Given that the research design used in this study is cross-sectional, it is not possible to infer causality between fairness and high satisfaction. Besides, the research has not been able to measure future use of the complaint handling process, legitimacy and efficiency of maritime operations in Tanzania. For that reason, the empirical conclusion is limited to the perceptions of stakeholders and the correlation found.

6.2. Recommendations

One important step that can be taken to deal with stakeholders' perception of lack of equal treatment is to develop a checklist showing all the documentation needed to lodge and substantiate a complaint. Uniform requirements need to be applied to similar complaints with an explanation provided for any extra documentation required depending on each case.

Another step is to have a standard format for written decisions that include the issue considered, the document relied upon, rule used and rationale behind the decision. Similar decisions should be reviewed from time to time by supervisors in order to find any disparity in reasoning and documents required.

In order to enable stakeholders to understand the complaint process, the steps involved in the process, documents needed in making a complaint and means of clarifying a complaint should be published. TASAC needs to guide smaller operators through the process by briefing them and assisting them in filling the checklist for lodging a complaint.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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