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## **Factors Driving Smuggling Businesses in Coastal Region: A Case of Tanga Region in Tanzania**

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### **Abstract**

*Tanzania initiated combating smuggling, including tighter tax laws, better border security, and better customs processes. Smuggling continues despite these efforts, indicating continued issues with enforcement and the efficacy of regulations. This paper aimed to assess the factors driving smuggling businesses in the coastal region of Tanzania, specifically in the Tanga Region. Specifically, on the assessment of influence attitude towards smuggling business, subject norms, and perceived behavioral control on smuggling business activities. A cross-sectional survey design was employed, using a quantitative approach to gather data, which included a questionnaire as a data collection method. The sample consisted of 120 individuals from the coastal region of Tanga, though only 110 valid responses were obtained, about 91.7%, which were selected randomly from Tanga, and data was analysed by descriptive statistics and multiple regression analysis. The findings revealed that attitudes towards smuggling, subjective norms, and perceived behavioural control all played significant roles in influencing smuggling activities in the region. Specifically, positive attitudes and supportive subjective norms were associated with higher engagement in smuggling activities, while perceived behavioural control was found to impact individuals' ability to control their involvement in smuggling. The study recommends implementing community-based awareness programs, enhancing law enforcement efforts, and fostering collaboration between local authorities and international partners. These measures aimed to address the psychological and social factors contributing to smuggling and improve overall enforcement strategies. The study provided valuable insights into the dynamics of smuggling in coastal regions and highlighted the need for comprehensive approaches to tackle this persistent issue effectively.*

**Keywords:** *Attitude toward Smuggling Business; Subjective Norms; Perceived Behavior Control; Smuggling Business; and Coastal Region*

### **1. Introduction**

The illicit movement of persons or products across borders without the necessary authorisation, or "smuggling," is still a major global problem that affects many different countries. Drug smuggling, people trafficking, animal trafficking, and the transportation of illicit products are just a few examples of the many shapes this illegal activity takes (Johnson, 2017; Ochunge & Odanga, 2017). People's decisions to engage in illicit activities like smuggling business can be influenced by numerous factors such as perceived behaviour controls, a concept from the Theory of Planned behaviour (TPB) (Ajzen, 1985).

Smuggling has a significant worldwide impact since it jeopardises public safety, national security, and economic stability. Between 8% and 15% of the world's GDP is estimated to be made up of smuggling business, which has a significant impact on legal enterprises and government revenue (UNCTAD, 2019). Corruption, political unrest, and economic disparities all make smuggling in Africa more difficult. Smuggling is a complicated challenge in East Africa, especially along the Indian Ocean coast, with a wide range of items and significant enforcement issues.



Effective anti-smuggling initiatives are frequently hampered by corruption and internal conspiracies (World Bank, 2017). In Tanzania, smuggling has become a danger to the country's economy and social cohesion (Smith, Jones, & Brown, 2020). The illicit movement of goods, encompassing raw materials and counterfeit merchandise, impedes lawful commerce and leads to substantial tax avoidance (Tanzania Intelligence and Security Service, 2017).

Tanzania has taken steps to combat smuggling, including tighter tax laws, better border security, and better customs processes (Moshi & Kinyondo, 2016; Mwombeki, 2019). Smuggling continues despite these efforts, indicating continued issues with enforcement and the efficacy of regulations. Tanzania needs to use a multipronged approach to effectively combat smuggling, including tighter border controls, more law enforcement, and focused initiatives to address the underlying causes of smuggling, such as poverty, corruption, and economic inequality (Dharmaratne, 2016). Tanzania can lessen the negative consequences of smuggling and promote a safer and more stable economic environment by implementing comprehensive solutions, which will eventually support sustainable development and enhance societal well-being.

Numerous studies (Khan, Ally, & Rahman, 2019; Patel & Gupta, 2018; Smith et al., 2020) have emphasised the detrimental effects of smuggling, which include significant revenue losses, market distortions, and health hazards from counterfeit medications. While previous studies have looked at a variety of smuggling-related topics, such as informal commerce and its effects on the economy (Moshi & Kinyondo, 2016; Ntedika, 2017). There is a clear lack of research that focusses on the smuggling business in the coastal regions of Tanga region. This disparity restricts our ability to comprehend the distinct influence that perceived behaviour control has on the smuggling business in the Tanga region. Smuggling has grown to be a major threat to Tanzania's economy and social cohesion (Smith et al., 2020). The smuggling of products, including fake items and raw materials, hinders legal trade and results in significant tax evasion (Tanzania Intelligence and Security Service, 2017). People's decisions to engage in illicit activities like smuggling business can be influenced by numerous factors such as perceived behaviour controls, a concept from the Theory of Planned behaviour (TPB) (Ajzen, 1985).

Smuggling continues despite these efforts such as increased patrols, enhanced intelligence gathering, and international collaboration, indicating continued issues with enforcement and the efficacy of regulations. Tanzania needs to use a multipronged approach to effectively combat smuggling, including tighter border controls, more law enforcement, and focused initiatives to address the underlying causes of smuggling, such as poverty, corruption, and economic inequality (Dharmaratne, 2016). Tanzania can lessen the negative consequences of smuggling and promote a safer and more stable economic environment by implementing comprehensive solutions, which will eventually support sustainable development and enhance societal well-being. Numerous studies (Khan et al., 2019; Patel & Gupta, 2018; Smith et al., 2020) have emphasised the detrimental effects of smuggling, which include significant revenue losses, market distortions, and health hazards from counterfeit medications. While previous studies have looked at a variety of smuggling-related topics, such as informal commerce and its effects on the economy (Moshi & Kinyondo, 2016; Ntedika, 2017), there is a clear lack of research that focusses on the smuggling business in the coastal regions of the Tanga region. This disparity restricts our ability to comprehend the distinct influence that perceived behaviour control has on the smuggling business in the Tanga region to provide valuable insights that can guide targeted policy interventions and strategies to effectively combat this smuggling business for improving regional security and economic stability. The focus of this research is to address the following research objectives:

- a) To investigate the relationship between attitudes towards smuggling and the prevalence of smuggling businesses in the coastal region
- b) To examine the influence of subjective norms on the decision-making processes of individuals involved in smuggling businesses in the coastal region
- c) To explore the role of perceived behavioral control in shaping the behavior of individuals engaged in smuggling activities in the coastal region

## **2. Research Methods**

In this study, a cross-sectional research design was adopted to assess the influence of perceived behaviour control on smuggling enterprises in the coastal region of Tanga. This design entailed gathering data at a single point in time, which gave a snapshot of the variables under inquiry, such as perceived behavioural control connected to smuggling. The study used only quantitative research approach. This approach entailed employing structured questionnaires to



gather numerical data, which was then statistically analysed to find patterns and correlations between important variables, including perceived behavioural control over smuggling. This study conducted at coastal region of Tanga comprising a population of 393,429. Due to the calculated sample size needed to attain a 95% confidence level with a 5% margin of error for a population of 393,429, the researcher was able to gather data from 384 respondents in this study. However, the duration of data collection from the field limited the researcher's ability to reach 120 respondents. The study selected participants from the Tanga region's coastal area using a simple random sampling technique. By ensuring that each member of the targeted population had an equal chance of being included in the sample, this strategy reduced selection bias and improved the sample's representativeness. A questionnaire was used in the study to gather data. Using Google Forms, the researcher created online surveys, which were then given to the participants, and analysis was made using descriptive statistics, which also produced brief summaries of the measures and the sample, and multiple regression analysis to test the relationship between the smuggling business and attitude toward smuggling businesses, subjective norms, and perceived behavioural control.

### 3. Results and Discussion

#### 3.1 Participants Characteristics

From 101 participants in the study, 64.4% of them were men. According to the age group, 4.0% of people were younger than 24 or older than 45, 13.9% were between the ages of 35 and 44, and 45.5% were between the ages of 25 and 34. 65.6% of respondents to the marital status survey were single, and 64.4% were married. 64.4% of the population was well educated; 10.9% had a diploma; 15.8% had a master's degree; 1.0% had only completed primary school; and 7.9% had completed at least secondary school. In terms of employment, 12.9% did not have a job, whereas 87.1% did. The majority of participants (85.1%) were coastal residents, and 85.1% had seen smuggling take place (Table 1).

**Table 1: Participants' Characteristics**

Participants characteristics	Frequency	Percentage
<b>Sex</b>		
Female	36	35.6
Male	65	64.4
<b>Age in years</b>		
18-24	4	4.0
25-34	46	45.5
35-44 years	14	13.9
35-44 years	33	32.7
45 and above years	4	4.0
<b>Marital status</b>		
Married	65	64.4
Single	36	35.6
<b>Level of education</b>		
Bachelor's degree	65	64.4
Diploma	11	10.9
Master's degree	16	15.8
Primary	1	1.0
At least secondary	8	7.9
<b>Employment Status</b>		
Employed	88	87.1
Not Employed	13	12.9
<b>Living in the coast</b>		
No	15	14.9
Yes	86	85.1
<b>Witness smuggling</b>		
No	15	14.9
Yes	86	85.1



### 3.2 Descriptive Statistics

#### 3.2.1 Influence of Attitude toward Smuggling Businesses on the Smuggling Businesses

The descriptive statistics for the items forming attitudes (ATT) revealed a range of responses from the 101 participants, with each item having a minimum value of 1 (strongly disagree) and a maximum value of 5 (strongly agree). Perception of Financial Benefit (ATT1) had a mean score of 3.08 with a standard deviation of 1.301, indicating moderate agreement. Perception of Economic Harm (ATT2) had a mean of 3.04, while Moral Acceptability (ATT3) had a higher mean score of 3.35. Environmental Impact (ATT4) and Social Benefit (ATT5) scored means of 3.12 and 3.40, respectively, showing that respondents slightly agreed with these items. Perceived Risk (ATT6) had a mean of 3.14, Impact on Local Businesses (ATT7) scored 3.01, and Necessity for Survival (ATT8) had a mean of 3.10. Impact on Crime Rates (ATT9) and Personal Benefit (ATT10) both had mean scores of 3.23. The overall mean for the ATT composite score was 3.168 with a standard deviation of 1.1830, indicating an overall moderate level of agreement among the items (Table 2).

**Table 2: Attitude toward Smuggling Businesses**

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
Items	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
ATT1	101	1	5	3.08	1.301	-.094	.240
ATT2	101	1	5	3.04	1.348	-.198	.240
ATT3	101	1	5	3.35	1.374	-.061	.240
ATT4	101	1	5	3.12	1.388	-.217	.240
ATT5	101	1	5	3.40	1.266	-.003	.240
ATT6	101	1	5	3.14	1.342	-.284	.240
ATT7	101	1	5	3.01	1.338	-.197	.240
ATT8	101	1	5	3.10	1.330	-.133	.240
ATT9	101	1	5	3.23	1.326	-.220	.240
ATT10	101	1	5	3.23	1.280	-.030	.240
ATT	101	1.0	5.0	3.168	1.1830	-.010	.240

The findings (Table 2) indicated that attitudes towards smuggling were influenced by various factors, including perceptions of financial benefit, economic harm, moral acceptability, and social benefit. The moderate agreement with items such as Moral Acceptability (ATT3) and Social Benefit (ATT5) suggested that respondents believed smuggling could be justified under certain circumstances.

#### 3.2.2 The Influence of Subjective Norms on the Smuggling Businesses

The descriptive statistics for the items forming the Smuggling Businesses Norms (SBN) indicated variability in the responses from the 101 participants. Each item had a minimum value of 1 (strongly disagree) and a maximum value of 5 (strongly agree). Family Acceptance (SBN1) had a mean score of 2.64 with a standard deviation of 1.145, showing slight agreement among respondents. Friend Approval (SBN2) and Community Norms (SBN3) had higher mean scores of 3.08 and 3.02, respectively, indicating moderate agreement. Social pressure (SBN4) had a mean of 2.59, influence of local leaders (SBN5) scored 2.88, and religious acceptance (SBN6) had a mean of 2.87. Perception of commonality (SBN7) and peer influence (SBN8) had means of 2.84 and 2.53, respectively, while media influence (SBN9) and social acceptance (SBN10) had means of 2.84 and 2.94. The overall mean for the SBN composite score was 2.879 with a standard deviation of 1.1823, indicating an overall moderate level of agreement among the items (Table 3).

**Table 3: Subjective Business Norms**

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
Items	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
SBN1	101	1	5	2.64	1.145	.169	.240



SBN2	101	1	5	3.08	1.481	.257	.240	-1.491	.476
SBN3	101	1	5	3.02	1.463	.317	.240	-1.390	.476
SBN4	101	1	5	2.59	1.387	.421	.240	-1.121	.476
SBN5	101	1	5	2.88	1.373	.431	.240	-1.092	.476
SBN6	101	1	5	2.87	1.440	.332	.240	-1.288	.476
SBN7	101	1	5	2.84	1.398	.378	.240	-1.178	.476
SBN8	101	1	5	2.53	1.390	.429	.240	-1.039	.476
SBN9	101	1	5	2.84	1.214	.379	.240	-.856	.476
SBN10	101	1	5	2.94	1.441	.310	.240	-1.296	.476
SBN	101	1.3	4.9	2.879	1.1823	.390	.241	-1.452	.478

The findings (Table 3) demonstrated that various social factors, such as community norms, peer influence, and social acceptance, moderately influenced smuggling businesses in the coastal region. The higher mean scores for items like friend approval and community norms suggested that social acceptance and peer pressure played significant roles in individuals' engagement in smuggling activities.

### 3.2.3 *The Influence of Perceived Behavior Control on Smuggling Businesses*

The descriptive statistics for the items forming Perceived Behavioral Control (PBC) revealed varied responses from the 101 participants, with each item having a minimum value of 1 (strongly disagree) and a maximum value of 5 (strongly agree). Ease of Engagement (PBC1) had a mean score of 2.59 with a standard deviation of 1.168, indicating a moderate level of disagreement. Access to Resources (PBC2) had a mean of 2.67, while Ability to Avoid Detection (PBC3) had a mean score of 2.58. Knowledge of Smuggling Routes (PBC4) and Perceived Control (PBC5) scored means of 2.62 and 2.59, respectively, showing a slight disagreement among respondents. Influence of Law Enforcement (PBC6) had a mean of 2.50, Fear of Legal Consequences (PBC7) scored 2.45, and Perceived Difficulty (PBC8) had a mean of 2.43. Knowledge of Penalties (PBC9) and Community Support (PBC10) both had mean scores of 2.49 and 2.65, respectively. The overall mean for the PBC composite score was 2.558 with a standard deviation of .9985, indicating an overall moderate level of perceived control among the items. The PBC attained the normality, as evidenced by the levels of kurtosis and skewness being within  $\pm 3$  (Table 4).

**Table 4: Perceived Behaviour Control**

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis		
Items	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
PBC1	101	1	5	2.59	1.168	.268	.240	-.903	.476
PBC2	101	1	5	2.67	1.040	.422	.240	-.903	.476
PBC3	101	1	5	2.58	.983	-.046	.240	-.726	.476
PBC4	101	1	5	2.62	1.156	.187	.240	-1.007	.476
PBC5	101	1	5	2.59	1.266	.447	.240	-.646	.476
PBC6	101	1	5	2.50	1.246	.321	.240	-.898	.476
PBC7	101	1	5	2.45	1.396	.238	.240	-1.523	.476
PBC8	101	1	5	2.43	1.219	.176	.240	-1.206	.476
PBC9	101	1	5	2.49	1.339	.198	.240	-1.473	.476
PBC10	101	1	5	2.65	1.374	.462	.240	-.918	.476
PBC	101	1.0	4.5	2.558	.9985	.495	.240	-1.300	.476

The findings suggested that individuals perceived moderate difficulty and control in engaging in smuggling activities. The moderate disagreement with items such as fears of legal consequences (PBC7) and knowledge of penalties (PBC9) indicated that respondents were somewhat aware of the risks involved, but did not strongly fear the consequences.





### 3.3 Multiple Regression Analysis

This paper applied this model to test the relationship between the independent variable (Attitude toward Smuggling Business, Subjective Norms, and Perceived behaviour control) and the dependent variable (smuggling business) and the results were as follows hereunder (Table 5).

**Table 5: Regression Coefficients**

Variable	Unadjusted estimates		Adjusted estimates	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
ATT	-0.679 (-0.837, -0.521)	0.000	-0.533 (-0.657, -0.409)	0.000
SBN	0.635 (0.465, 0.805)	0.000	0.371 (.233, .510)	0.000
PBC	0.644 (0.430, 0.858)	0.000	0.326 (0.166, 0.486)	0.000

The findings (Table 5) indicated that ATT (attitudes) had a significant negative impact on smuggling activities, as reflected by the coefficients in both unadjusted and adjusted estimates (-0.679 and -0.533, respectively, both with p-values of 0.000). This suggested that more negative attitudes towards smuggling significantly reduce its occurrence. The findings also indicated that SBN (subjective norms) had a significant positive impact on smuggling activities. This suggested that stronger smuggling networks correlated with increased smuggling activities. Similarly, the findings revealed a statistically significant positive relationship between PBC and SMG for both the univariate and adjusted estimates. Based on the unadjusted analysis, it was found that for each unit increase in PBC, SMG increased significantly by 0.64 at  $p < 0.001$ . The multivariable regression model also revealed a positive association between PBC and SMG, where each unit increase in PBC resulted in a decrease of SMG by 0.33 at  $p < 0.001$ . These results implied that SBN and SMG had a positive relationship; to reduce SMG, it was necessary to lower the levels of SBN (Table 5).

## 4. Discussions

The study revealed that attitudes towards smuggling were influenced by various factors, including perceptions of financial benefit, economic harm, moral acceptability, and social benefit. The moderate agreement with items such as Moral Acceptability (ATT3) and Social Benefit (ATT5) suggested that respondents believed smuggling could be justified under certain circumstances. These findings align with the Theory of Planned Behaviour (TPB) by Ajzen, (1985), which posits that attitudes significantly influence individuals' intentions and behaviors. The relatively high mean scores for items related to perceived risks and impacts on crime rates further highlight the complex attitudes individuals hold towards smuggling, balancing perceived benefits against potential harms. These findings are consistent with the study by Johnson (2017), in the United States, which found that attitudes towards smuggling were shaped by perceived economic benefits and social norms. Similarly, the study by Werru (2016) in Kenya highlighted that attitudes towards illegal wildlife trade were influenced by perceived financial benefits and the necessity for survival. Additionally, the study by Ochunge, and Odanga (2017), in Nigeria found that attitudes towards smuggling were driven by economic factors and the perceived impact on local businesses. These studies support the relevance of the TPB in understanding the psychological and social factors influencing attitudes towards smuggling. By identifying key attitudes, targeted interventions can be developed to address and mitigate the factors driving smuggling activities in the coastal region.

In regression analysis, the study noted that attitude have a negative impact on smuggling business. This suggested that more negative attitudes towards smuggling significantly reduce its occurrence. Theoretically, this aligns with the theory of planned behaviour, which posits that negative attitudes toward a behaviour decrease the likelihood of engaging in that behavior. Practically, these findings imply that altering public attitudes through awareness campaigns could be an effective strategy to reduce smuggling. These findings were similar to Johnson (2017), who found that negative attitudes among coastal residents in the United States correlated with reduced smuggling activities. Conversely, Smith et al. (2020) in Australia discovered that negative community attitudes towards smuggling were linked with increased enforcement efforts but did not necessarily reduce smuggling prevalence.

The similarity between this study's findings and Johnson (2017) lies in the significant role that socio-demographic variables and community attitudes play in shaping behaviours towards smuggling. Both studies highlight that when community members in Tanga and the United States hold negative attitudes toward smuggling, there is a



corresponding decrease in smuggling activities. This alignment suggests that attitudes and perceptions are crucial determinants of behaviour, consistent across different geographic contexts. Conversely, the difference with Smith et al. (2020) in Australia is due to varying socio-economic and cultural contexts. While negative community attitudes in Australia led to increased enforcement efforts, Tanga's weaker enforcement mechanisms and different socio-economic dynamics mean attitudes alone are insufficient to deter smuggling.

Similarly, the findings demonstrated that various social factors, such as community norms, peer influence, and social acceptance, moderately influenced smuggling businesses in the coastal region. The higher mean scores for items like friend approval and community norms suggested that social acceptance and peer pressure played significant roles in individuals' engagement in smuggling activities. This aligns with the Theory of Planned Behaviour (TPB) by Ajzen (1985), which posits that social norms and perceived social pressures significantly influence individuals' intentions and behaviours. The moderate agreement with items like religious acceptance and influence of local leaders highlighted the complex interplay of various societal influences on smuggling behaviors. These findings are consistent with the study by Johnson (2017) in the United States, which found that community support and social norms significantly impacted attitudes towards smuggling. Similarly, the study by Boateng and Owusu-Ansah (2017), in Ghana highlighted that local community support and cultural norms facilitated smuggling activities. These studies support the relevance of the TPB in understanding the psychological and social factors influencing smuggling businesses. By identifying key social influences, targeted interventions can be developed to address and mitigate the factors driving smuggling activities in the coastal region.

In regression analysis, the study also revealed that subject norms have a positive impact on impact on smuggling business. This suggested that stronger smuggling networks correlated with increased smuggling activities. Theoretically, this aligns with the Theory of Planned Behaviour, which posits that social networks and perceived support can influence behaviours, including smuggling. Practically, this implies that disrupting smuggling networks could reduce smuggling activities. These findings were similar to Boateng and Owusu-Ansah (2017) in Ghana, who identified strong smuggling networks as a major driver of smuggling, emphasising the need to target these networks in enforcement efforts.

Conversely, Salt (2016) in Europe found that while smuggling networks existed, their impact was mitigated by rigorous enforcement and policy measures, leading to mixed results. The similarity with Boateng and Owusu-Ansah (2017) lies in the significant role of networks in facilitating smuggling activities across different regions. The difference with Salt (2016) is attributed to the varying effectiveness of enforcement measures; while smuggling networks were influential in Tanga and Ghana, enforcement in Europe managed to partially counteract their impact, highlighting the moderating effect of enforcement strength on the role of smuggling networks.

Consistently, the findings also revealed that individuals perceived moderate difficulty and control in engaging in smuggling activities. The moderate disagreement with items such as fears of legal consequences (PBC7) and knowledge of penalties (PBC9) indicated that respondents were somewhat aware of the risks involved, but did not strongly fear the consequences. These findings are consistent with the Theory of Planned Behavior (TPB) by Ajzen, (1985) which posits that perceived behavioral control significantly influences individuals' intentions and behaviors. The relatively low mean scores for items related to perceived control and access to resources highlight the challenges individuals face in smuggling activities, balancing perceived ease of engagement against potential difficulties.

These findings align with the study by Ng'ang'a (2016) in Kenya, which found that perceived behavioral control factors such as access to resources and knowledge of smuggling routes influenced individuals' involvement in smuggling. Similarly, the study by Hussain (2017), in Pakistan highlighted that perceived ease of engagement and fear of legal consequences played a crucial role in individuals' decision to engage in illegal trade. Additionally, the study by Ramirez (2018) in Mexico found that community support and perceived control were significant predictors of involvement in smuggling activities. These studies support the relevance of the TPB in understanding the psychological and social factors influencing perceived behavioral control in smuggling activities. By identifying key control factors, targeted interventions can be developed to address and mitigate the perceived behavior control driving smuggling activities in the coastal region.



In regression analysis, the study found that PBC (perceived behavioural control) had a significant positive impact on smuggling activities. This meant that higher perceived control over smuggling increased its occurrence. Theoretically, this aligns with the Theory of Planned Behaviour, suggesting that individuals who feel capable of smuggling are more likely to engage in it. Practically, these findings implied that reducing the ease and perceived control of smuggling could be an effective deterrent. These results were similar to Olanrewaju and Ojo (2018) in Nigeria, who found that perceived ease and control over smuggling activities significantly contributed to their prevalence.

Conversely, Ayele et al. (2017) in Ethiopia discovered that despite high perceived control, smuggling was less prevalent due to stringent enforcement and harsh penalties. The similarity with Olanrewaju and Ojo (2018) can be attributed to similar socio-economic contexts, where weak enforcement and high perceived control facilitate smuggling. The difference with Ayele et al. (2017) stems from Tanga's weaker enforcement mechanisms compared to Ethiopia's stringent measures, highlighting how enforcement strength moderates the impact of perceived behavioural control on smuggling activities.

## **5. Conclusions**

The study aimed to investigate the factors driving smuggling businesses in the coastal region of Tanga. The findings indicated that attitudes (ATT), social networks (SBN), and perceived behavioural control (PBC) significantly influenced smuggling activities. Specifically, a negative relationship was found between attitudes and smuggling, implying that more favourable attitudes towards smuggling reduction were associated with lower levels of smuggling activities. Conversely, social networks and perceived behavioural control had positive relationships with smuggling, indicating that stronger smuggling networks and higher perceived ease of engaging in smuggling increased the likelihood of such activities. The absence of multicollinearity and the fulfilment of regression assumptions supported the robustness of these findings.

Overall, the study concluded that addressing smuggling in Tanga requires targeted interventions to change attitudes, disrupt smuggling networks, and reduce perceived ease and control over smuggling activities. Emphasising attitude change appears to be the most critical factor in effectively reducing smuggling activities in the region.

## **6. Recommendations**

The study recommends that academic researchers should focus on further investigating the psychological and social factors influencing smuggling activities. More in-depth studies on attitudes, subjective norms, and perceived behavioural control in various regions could provide a broader understanding of these dynamics. Researchers should also explore the effectiveness of different interventions in altering these factors and reducing smuggling activities. Cross-regional comparative studies could offer valuable insights into the cultural and socio-economic aspects of smuggling.

It is recommended that stakeholders, including local communities, NGOs, and international organisations, should work collaboratively to create awareness and change perceptions about smuggling. Initiatives that involve community leaders and influencers can help in altering subjective norms and attitudes towards smuggling. Stakeholders should also support education and outreach programs that highlight the negative impacts of smuggling on the economy and society. Engaging with the community through participatory approaches can foster a collective effort in combating smuggling activities.

The study also recommends that businessmen and traders should be educated about the legal and ethical implications of engaging in smuggling activities. Awareness programs that emphasise the long-term benefits of lawful trading practices could help in shifting their attitudes. Additionally, business associations can play a crucial role in promoting ethical business practices and providing support to members in adhering to legal trade regulations. Encouraging transparent and fair business practices can contribute to reducing the inclination towards smuggling.

It is recommended that governments and policymakers should focus on strengthening regulatory frameworks and enforcement mechanisms to combat smuggling effectively. Policies aimed at improving the economic conditions





and providing viable alternatives to smuggling can be instrumental. Implementing strict penalties for smuggling activities, coupled with public awareness campaigns, can deter individuals from engaging in such practices. Moreover, enhancing border security and surveillance can reduce the ease of smuggling, addressing the perceived behavioural control aspect. Policymakers should also consider collaborative efforts with neighbouring countries to tackle cross-border smuggling comprehensively.

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