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Comparative Analysis of Tobacco Use Risk Factors in Tanzania and Kenya: Insights from the 2015/2016 Demographic and Health Survey Data

Comparative Analysis of Tobacco Use Risk Factors in Tanzania and Kenya: Insights from the 2015/2016 Demographic and Health Survey Data

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Abstract
Tobacco use remains the most preventable cause of death globally. In Africa, evidence indicates a rise in smoking prevalence among younger generations. This study used 2015/2016 Tanzania and Kenya Demographic Health Surveys and employed logistic regression to identify risk factors associated with tobacco use. The analysis revealed that significant factors influencing tobacco use in both Tanzania and Kenya include education level, marital status, wealth index, alcohol consumption, and occupation status. Households with lower education, middle or higher wealth index, and alcohol use had a higher likelihood of tobacco use. Divorced and separated households were more prone to tobacco consumption. Moreover, working households in both countries had higher odds of tobacco use than non-working ones. Thus, policymakers should prioritize strengthening anti-smoking education campaigns, especially targeting lower-educated and working households. Increasing taxes on tobacco products could further reduce usage.

Introduction
Tobacco use is a preventable public health issue responsible for the deaths of approximately 8 million people annually, primarily from chronic diseases like respiratory neoplasms and cardiovascular conditions. Around 7 million of these deaths result directly from tobacco use, while 1.2 million occur due to second-hand smoke exposure, with smokers losing 20-25 years of life compared to non-smokers (WHO, 2020)

In Tanzania, the prevalence rate of tobacco use is about 13.6% for males and the female is 0.6% (WHO, 2023). Every year, more than 17,200 (2.5%) people die due to tobacco-related diseases. While we are witnessing the effects yet, more than 17,000 children continue to use tobacco each day. In Kenya, the prevalence of tobacco use is about 19.1% for males and 4.5% for females (WHO, 2023). Every year, more than 8,100 (1.8%) people die due to tobacco-related diseases, and we are witnessing the effects yet more than 18,000 children continue to use tobacco each day.

This study is geared to analyse the risk factors for tobacco use using Demographic Health Survey Data (2015/2016).

Theoretical Review

This study draws upon Consumer Behaviour Theory, which posits that a rational consumer allocates income across various needs to maximise utility. In this context, the household is assumed to optimise the benefits of tobacco use while considering both its production function and budget constraints. This theoretical model assumes that a household seeks to maximise utility. The model suggests that households make consumption choices based on the desire to achieve the highest possible satisfaction within their income and resources limits.

Empirical Literature Review

Several studies have provided valuable insights into the determinants and risk factors associated with tobacco use across various regions, with findings highlighting a range of socio-economic, demographic, and geographic influences. Bonnechere et al. (2019) in Burkina Faso found that men were significantly more likely to use cigarettes than women, with age and alcohol consumption being key contributors to increased tobacco use. Education level and geographic location were strong predictors of tobacco use, with rural residents showing higher rates of smoking compared to their urban counterparts.

Geographic factors were significant determinants of tobacco use. In a study conducted in Ethiopia, Guliani et al. (2019) emphasised the role of geographic location, showing that individuals living in lowland areas were more prone to smoking than those residing in highland regions. Research on youth populations has also revealed alarming trends. Tezera and Endalamaw (2019) reported an increase in cigarette smoking among East African school-aged teenagers. They found that peer pressure, socio-economic background, and early exposure to tobacco were major drivers of tobacco use.

Studies from different cultural contexts further illustrate how social and occupational dynamics influence tobacco use. Rahman et al. (2015), in Sarawak, Malaysia, found that education level, business occupations, and social exposure to smoking in places like workplaces and coffee shops increased the likelihood of tobacco use. In Brazil, Reichert et al. (2004) observed similar patterns, with smoking rates being higher among men in social environments that normalised tobacco use.

The influence of tobacco marketing and industry interference have been noted in various regions. Blecher (2008) and Chaloupka et al. (2011) found that tobacco advertising bans and price policies effectively reduce consumption in low- and middle-income countries. In examining gender differences, several studies have found that men are more likely to smoke than women (Mackay and Amos, 2003).

Several studies have explored the role of public health interventions in reducing tobacco use. Kasza et al. (2011) found that access to smoking cessation aids and support systems, such as nicotine replacement therapies and quit lines, were crucial in reducing smoking rates. Nargis et al. (2019) demonstrated the impact of price increases on tobacco products in Bangladesh, showing that higher tobacco taxes led to reduced consumption, particularly among lower-income groups.

The empirical literature reveals a complex web of socio-economic, geographic, and cultural factors influencing tobacco use.

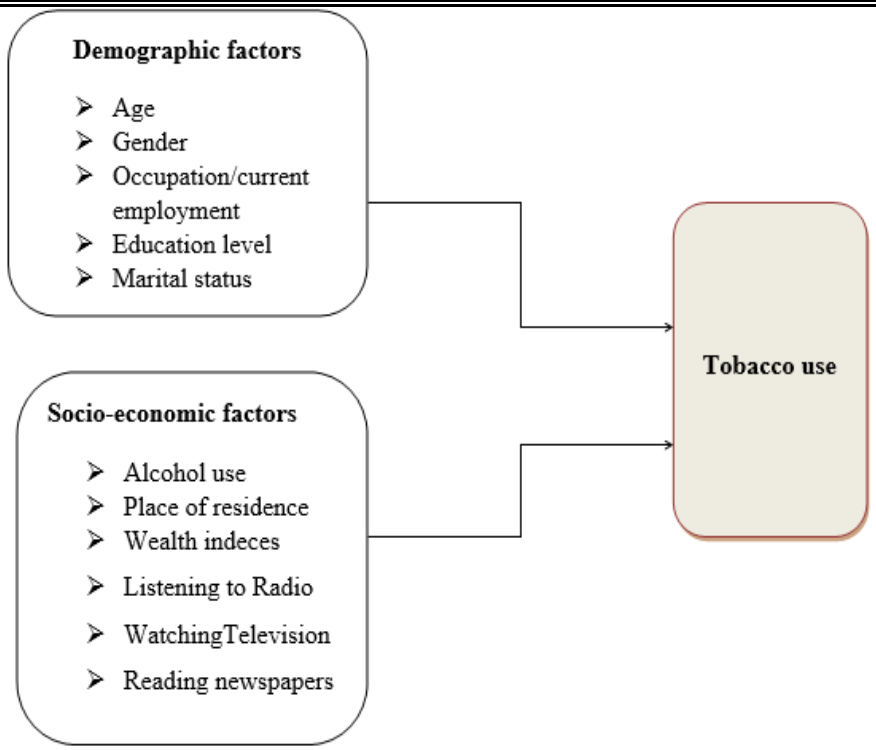

Figure 1: Conceptual framework

Source: Author (2024)

Methodology

This study compares tobacco use and its associated risk factors in Tanzania and Kenya, using data from the 2015/2016 Demographic Health Surveys (DHS) of both countries. Tanzania, with a population of 57.6 million, and Kenya, with 52 million people, share similar geographical features and border the Indian Ocean. Despite these similarities, the prevalence of tobacco use differs between the two nations. In Tanzania, the overall prevalence of tobacco smoking is 7.1% (13.6% for men and 0.6% for women), while in Kenya, it is higher at 10.3% (19.7% for men and 0.9% for women) (WHO, 2019). The study employed a cross-sectional survey approach, utilising data from the Tanzania Demographic Health Survey (TDHS) and Kenya Demographic Health Survey (KDHS). The population surveyed included individuals aged 15 to 49.

Data Analysis

The data analysis process involved cleaning, coding, and sorting data obtained from the Demographic and Health Survey (2015/2016). Descriptive statistics were computed and presented in tables to summarise key variables. Regression analysis was then performed.

Logistic Regression Estimation

Based on the theoretical framework and empirical review, the risk factors associated with tobacco use were identified. It was followed by a binary logistic regression model. The logistic regression model follows properties of the generalised linear model (GLM), and we define the hypothetical population proportion of respondents who smoke cigarettes be $Y = 1$ as $\pi = P(Y = 1 | X = x)$.

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Then, the theoretical proportion of which $Y = 0$ is $1 - \pi = P(Y = 0 | X = x)$. The estimate π was taken by sample proportions for which $Y = 1$

In the GLM context, it assumed that there exists a set of predictor variables $X_{11}, X_{12}, X_{13}, \ldots\ldots\ldots, X_{1d}$ related to Y and it provides additional information for estimating Y. Mathematical reasons for additive and multiplicity logistic model based on a linear model for the log odds in favour of $Y = 1$

$$Log_e \frac{\pi_i}{1-\pi_i} = a + \sum_{j=1}^{d} \beta_j X_{ij} \quad (1)$$

Thus; $\pi_i = \sum_{j=0}^{d} \beta_j X_{ij}$ where $\beta = \Re^d$ of unknown parameters

$$g(\pi_i) = Log_e \frac{\pi_i}{1-\pi_i} = Logit(\pi_i) \quad (2)$$

Results

Descriptive analysis

Table 1 indicates the smoking status between the countries of Tanzania and Kenya. For Tanzania, the smoking status indicates that about 3,066 (87.25%) of the households do not smoke tobacco while 448 (12.75%) households smoke tobacco. In Kenya, 10,060 (83.74%) households do not smoke tobacco and 1,954 (16.26%) households smoke tobacco.

Table 1: Distribution of tobacco use by Country

Countries	Smoking Status	Frequency	Percentage
Tanzania	Do not smoke Tobacco	3,066	87.25
	Smokes Tobacco	448	12.75
Kenya	Do not smoke Tobacco	10,060	83.74
	Smokes Tobacco	1,954	16.26

Source: Computation (2021)

Description on household characteristics based on tobacco usage

The analysis of tobacco use based on age categories revealed differences between Tanzania and Kenya as presented in Tables 2a&b. In Kenya, among households aged 15–19, 0.83% did not smoke tobacco, while 0.71% did. As the age groups progressed, the prevalence of tobacco uses increased, with 7.3% of those aged 20–24 smoking, and 16.8% of those aged 45–49 smoking tobacco. In contrast, Tanzania showed lower tobacco use across similar age groups. For example, in the 15–19 age group, 6.0% did not smoke, while 5.8% did, and in the 45–49 age group, 2.4% did not smoke, while 1.78% did. These differences highlight a higher overall tobacco use in Kenya compared to Tanzania.

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Table 2a: Descriptive statistics for tobacco use associated risks factors for Tanzania and Kenya

Variables	Categories	Descriptive statistics for Kenya			Descriptive statistics for Tanzania		
		Tobacco use			Tobacco use		
		Don't Smoke	Smoke	Total	Don't Smoke	Smoke	Total
Age Groups	15-19	84(0.83%)	14(0.71%)	98	185(6.0%)	26(5.8%)	211
	20-24	674(6.69%)	142(7.3%)	816	685(22.3%)	105(23.4%)	790
	25-29	1711(17%)	332(16.9%)	2043	771(25.1%)	126(28.1%)	897
	30-34	1886(18.7%)	373(19.0%)	2259	663(21.6%)	93(20.7%)	756
	35-39	2215(22%)	397(20.3%)	2612	458(14.9%)	60(13.3%)	518
	40-44	1903(18.9%)	366(18.7%)	2269	229(7.46%)	30(6.69%)	259
	45-49	1587(15.7%)	330(16.8%)	1917	75(2.4%)	8(1.78%)	83
Total		**10060**	**1954**	**12014**	**3066**	**448**	**3514**
Marital Status	Never in union	4944(49.1%)	440(22.5%)	5384	1496(48.7%)	84(18.7%)	1580
	Married	4569(45.4%)	1179(60.3%)	5748	994(32.4%)	220(49.1%)	1214
	Living with partner	200(0.1%)	41(2%)	241	464(15.1%)	90(20%)	554
	Widowed	38(0.03%)	18(0.09%)	56	13(0.42%)	4(0.89%)	17
	Divorced	86(0.08%)	78(3.9%)	164	53(17.2%)	30(6.69%)	83
	Separated	223(2.2%)	198(10.1%)	421	46(15%)	20(4.46%)	66
Total		**10060**	**1954**	**12,014**	**3066**	**448**	**3514**
Occupation	Not working	2566(25.5%)	76(3.8%)	2642	451(14.7%)	8(1.78%)	459
	Working	7494(74.4%)	1878(96.1%)	9372	2615(85.2%)	440(98.2%)	3055
Total		**10060**	**1954**	**12,014**	**3066**	**448**	**3514**
Education level	No education	563(0.5%)	100(5.1%)	663	221(7.2%)	58(12.9%)	279
	Primary education	4912(48.8%)	1274(65.1%)	6186	1847(60.2%)	328(73.2%)	2175
	Secondary education	3376(33.5%)	454(23.2%)	3830	918(29.9%)	59(13.1%)	977
	Higher education	1209(12%)	126(6.4%)	1335	80(2.6%)	3(0.66%)	83
Total		**10060**	**1954**	**12,014**	**3066**	**448**	**3514**

Marital status played a significant role in tobacco use in both countries. In Kenya, 49.1% of households never in a union did not smoke tobacco, compared to 22.5% who did. Among married households, 45.4% did not smoke, while 60.3% smoked. In Tanzania, the pattern was similar but with lower tobacco use: 48.7% of households never in a union did not smoke, while 18.7% did. Among married households, 32.4% did not smoke, and 49.1% smoked. In both countries, widowed and separated households exhibited lower rates of tobacco use compared to married and never-in-union households.

The analysis reveals that the wealth index, residence, media exposure, and alcohol use significantly influence tobacco consumption in Tanzania and Kenya. In Tanzania, 22.4% of the poorest households

smoke tobacco, compared to 23.6% in Kenya. Rural households have higher tobacco use, with 71.6.1% in Tanzania and 61.53% in Kenya. Media exposure increases smoking rates, as 71.6% of Tanzanian households who listen to the radio smoke, compared to 69.8% in Kenya. Similarly, 58.2% of Tanzanian households who do not watch TV smoke, while 52% of Kenyan households do. Reading newspapers is associated with smoking, with 35.3% of newspaper readers smoking in Kenya and 29.4% in Tanzania. Alcohol use is strongly linked to tobacco consumption, with 56.2% of Tanzanian households that consume alcohol also smoking, compared to 63.4% in Kenya. Overall, Kenya shows slightly higher tobacco use rates across these variables than Tanzania.

Table 2b: Descriptive statistics for tobacco use risk factors for Tanzania and Kenya

		Descriptive statistics for Kenya			**Descriptive statistics for Tanzania**		
Variables	**Categories**	**Tobacco use**			**Tobacco use**		
		Don't Smoke	**smoke**	**Total**	**Don't Smoke**	**smoke**	**Total**
Wealth index	Poorest	2066(20.5%)	438(22.4%)	2504	486(15.8%)	106(23.6%)	592
	Poorer	1965(19.5%)	478(24.4%)	2443	494(16.1%)	76(16.9%)	570
	Middle	2047(20.3%)	419(21.4%)	2466	601(19.6%)	87(19.4%)	688
	Richer	2210(21.9%)	369(18.8%)	2579	707(23%)	91(20.3%)	798
	Richest	1772(17.6%)	250(12.7%)	2022	778(25.3%)	88(19.6%)	866
Total		**10060**	**1954**	**12,014**	**3066**	**448**	**3514**
Place of residence	Urban	3870(38.46%)	778(39.8%)	4648	930(30.3%)	127(28.3%)	1057
	Rural	6190(61.53%)	1176(60.1%)	7366	2136(69.6%)	321(71.6%)	2457
Total		**10060**	**1954**	**12,014**	**3066**	**448**	**3514**
Alcohol use	Consumed alcohol drinks	1905(18.9%)	1240(63.4%)	3145	693(22.6%)	252(56.2%)	945
	Do not Consumed alcohol drinks	8155(81%)	714(36.5%)	8869	2373(77.3%)	196(43.7%)	2569
Total		**10060**	**1954**		**3066**	**448**	**3514**
Listening radio	Listened radio	7185(71.4%)	1401(71.6%)	8586	2182(71.1%)	313(69.8%)	1019
	Did not listen radio	2875(28.5%)	553(28.3%)	3428	884(28.8%)	135(30.1%)	2495
Total		**10060**	**1954**	**12,014**	**3066**	**448**	**3514**
Watch television	Watch television	4428(44%)	919(47%)	5347	1341(43.7%)	187(41.7%)	1528
	Do not watch TV	5632(55.9%)	1035(52%)	6667	1725(56.2%)	261(58.2%)	1986
Total		**10060**	**1954**	**12,014**	**3066**	**448**	**3514**
	Read newspaper	3232(32.1%)	690(35.3%)	3922	958(31.2%)	132(29.4%)	1090

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		Descriptive statistics for Kenya			Descriptive statistics for Tanzania		
Variables	**Categories**	**Tobacco use**			**Tobacco use**		
		Don't Smoke	**smoke**	**Total**	**Don't Smoke**	**smoke**	**Total**
Read News Papers	Do not read newspaper	6828(67.8%)	1264(64.6%)	8092	2108(68.7%)	316(70.5%)	2424
Total		**10060**	**1954**	**12,014**	**3066**	**448**	**3514**

Determinant for tobacco use across countries

Table 3 indicates the logistic regression statistical significance results for the risk factors associated with tobacco use for both Tanzania and Kenya. Based on the data analysed, the identified risk factors are the age of households, secondary education, higher education, currently working households middle, richer, divorced, no longer living with a partner, and receiving a text message for Tanzania. However, households' age, households living in rural areas, primary education, higher education, use of alcohol, middle wealth index, richer, richest, married households, living with a partner, divorced, no longer living with a partner and currently working households were identified as risk factors associated with tobacco use in Kenya.

Table 3 shows that an individual in an urban area was statistically significant at a 1% significant level with a p-value of 0.000, positively related to tobacco use in Kenya. In the case of Kenya, the likelihood of households' tobacco use is presented as 29% higher odds. That means the odds ratio is 1.29. The likelihood of households' tobacco use living in urban areas is 29% higher than that of households living in rural areas. The result implies that households located or living in urban areas are more likely to use tobacco than those living in rural areas in Kenya.

The result in Table 3 shows that the level of primary education of households would influence tobacco use in Kenya and Tanzania. It was found that primary education of households was statistically significant at a 5% level with a p-value of 0.035 and positively related to tobacco use in Kenya. In the case of Kenya, the likelihood of households with primary education using tobacco is presented as 30% higher odds. That means the odds ratio is 1.30, and the likelihood of households with primary education tobacco use is 30% higher than the households with no education and university education; other factors remain constant. The result implies that households with primary education were more likely to use tobacco in Kenya.

The result shows that a household's secondary education positively influences tobacco use in Tanzania. In Table 3, households with secondary education are statistically significant at a 1% significant level with a p-value of 0.000, positively related to tobacco use in Tanzania. In the case of Tanzania, the likelihood of households' tobacco use is presented as 42% lower odds. That means the odds ratio is 0.42, and the likelihood of households with secondary education tobacco use is 42% lower than the households with no education. The result implies that households with secondary education are less likely to use tobacco than those without education in Tanzania.

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Table 3: Logistic regression for risk factors associated with tobacco use in Tanzania and Kenya

Tobacco use in Tanzania						Tobacco use in Kenya					
Tobacco use	**Odds ratios**	**t-value**	**p-value**	**[95% CI]**		**Tobacco use**	**Odds ratios**	**t-value**	**p-value**	**[95% CI]**	
Educational level											
Primary	0.75	-1.64	0.101	0.535	1.057	Primary	1.309**	2.11	0.035	1.019	1.68
Secondary	0.42***	-3.77	0.000	0.268	0.66	Secondary	0.804	-1.57	0.118	0.612	1.05
Higher	0.13***	-3.19	0.001	0.039	0.46	Higher	0.495***	-4.19	0.000	0.357	0.68
Wealth index											
Poorer	0.78	-1.41	0.159	0.556	1.101	Poorer	0.949	-0.60	0.551	0.802	1.12
Middle	0.69**	-2.17	0.030	0.496	0.965	Middle	0.875	-1.50	0.134	0.735	1.04
Richer	0.74*	-1.73	0.084	0.534	1.04	Richer	0.665***	-4.29	0.000	0.553	0.80
Richest	0.88	-0.65	0.513	0.622	1.268	Richest	0.563***	-5.08	0.000	0.451	0.70
Current marital											
Married	2.43***	6.17	0.000	1.833	3.222	Married	1.403***	5.03	0.000	1.23	1.60
Living with partner	1.55**	2.53	0.012	1.104	2.189	Living with partner	1.118	0.59	0.558	0.768	1.63
Widowed	2.48	1.50	0.133	0.758	8.152	Widowed	2.564***	2.95	0.003	1.372	4.79
Divorced	5.91***	6.54	0.000	3.472	10.065	Divorced	3.714***	7.14	0.000	2.591	5.32
No longer living	3.55***	4.12	0.000	1.943	6.487	No longer living	3.475***	10.13	0.000	2.731	4.42
Currently working											
Working	3.53***	3.35	0.001	1.688	7.398	Working	4.245***	11.25	0.000	3.301	5.46
Alcohol Consumption											
Use alcohol	3.66***	11.68	0.000	2.95	4.564	Use alcohol	5.932***	31.31	0.000	5.307	6.63
Media Use						**Place of residence**					

Text message	0.57**	-2.05	0.041	0.335	0.976	Rural	1.29***	4.09	0.000	1.146	1.47
Constant	0.029***	-8.69	0.000	0.013	0.064						

The study reveals that higher education has a significant inverse relationship with tobacco use in both Tanzania and Kenya. In Tanzania, households with higher education are 87% less likely to use tobacco than those without education, while in Kenya, the likelihood is 51% lower. This suggests that education plays a role in reducing tobacco consumption, as individuals with higher education may have better awareness of the health risks associated with tobacco use and may be more influenced by public health campaigns. The statistically significant p-value of 0.001 for Tanzania highlights the robustness of this finding. The results imply that promoting educational initiatives may be an effective strategy in curbing tobacco use, especially in populations with lower educational attainment.

In terms of wealth index, the study found that households in the middle and richer wealth categories are more likely to use tobacco compared to those in the poorer wealth index in both countries. In Tanzania, the likelihood of tobacco use among middle-income households is 31% higher, while in Kenya, richer households are 34% more likely to use tobacco. Interestingly, the richest households in Kenya are 35% less likely to use tobacco than their poorer counterparts. This mixed relationship between wealth and tobacco use could be influenced by different social dynamics, with middle and richer households potentially having greater disposable income to spend on tobacco products, while the wealthiest may be more health-conscious.

The study also found that occupation plays a significant role in tobacco use in both Tanzania and Kenya. Households with members currently working are significantly more likely to use tobacco. In Kenya, working households have 3.1% higher odds of using tobacco, while in Tanzania, the odds are 2.5% higher. This suggests that employment status is positively associated with tobacco consumption, possibly due to increased stress or social interactions that promote smoking, particularly in certain professions or industries.

Marital status is another key factor influencing tobacco use, with divorced, separated, and widowed individuals more likely to use tobacco in both countries. In Kenya, widowed households have 15.8% higher odds of using tobacco, while divorced households are 25% more likely to use tobacco. In Tanzania, households no longer living with a partner have a 25% higher likelihood of tobacco use, and divorced households are 49% more likely to smoke compared to widowed households.

Lastly, the study shows that alcohol consumption is strongly associated with tobacco use in both countries. Households consuming alcohol in Kenya are 49% more likely to use tobacco, while in Tanzania, alcohol consumption raises the likelihood by 26%.

Discussions

In Kenya, individuals residing in urban areas were significantly more likely to use tobacco than those in rural areas. This finding is consistent with the work of Bonnechere et al. (2019), who found similar results in Burkina Faso. This may be due to increased exposure to tobacco products and marketing in urban settings, as suggested by Rahman et al. (2019), who reported that ever-married men in urban areas were more prone to tobacco use. In contrast, Kaplan et al. (2017) found that in some contexts, rural households were more likely to smoke, emphasising the need for region-specific interventions in tobacco control efforts. These mixed results suggest that the relationship between urban or rural residency and tobacco use is complex and may depend on additional factors such as access to tobacco, socio-cultural norms, and economic opportunities.

The association between education and tobacco use is notable. In Kenya, households with primary education were found to have higher odds of tobacco use, which is consistent with the findings of Kaplan et al. (2017), who observed that lower levels of education were linked to higher smoking prevalence. Similarly, Das (2015) reported that in Tripura, India, primary education was a strong predictor of tobacco consumption. This suggests that individuals with lower educational attainment

may have less awareness of the health risks associated with tobacco use. The study found that in Tanzania, individuals with secondary education were less likely to use tobacco, which aligns with findings from Abdel-Hady and El-Gilany (2020) in Egypt, where secondary education was inversely related to smoking prevalence among older adults. This highlights the protective effect of higher education against tobacco use, possibly due to increased health awareness and better access to information.

Interestingly, the relationship between higher education and tobacco use was found to be inverse in both Kenya and Tanzania, where households with higher education were less likely to use tobacco. These findings align with those of Hamrah et al. (2019), who reported that educated individuals were less likely to smoke compared to those with no education. The study by Rahman et al. (2015) also emphasised that illiteracy was a key risk factor for tobacco use, especially among poorer populations in Bangladesh. The inverse relationship between education and tobacco use reinforces the importance of educational interventions in reducing tobacco consumption, as more educated individuals tend to be more aware of the health risks associated with tobacco use and are less influenced by tobacco marketing.

The findings regarding occupational status further suggest that households with members engaged in work were more likely to use tobacco in both Kenya and Tanzania. This contradicts previous studies, such as Hamrah et al. (2019), which indicated that unemployed individuals were more likely to smoke. However, the association between employment and tobacco use in this study may be related to the type of occupations prevalent in the study areas, particularly in agricultural or labour-intensive sectors where tobacco use is often more socially accepted, as Rahman et al. (2015) noted in Bangladesh. The link between employment and tobacco use in agricultural settings is consistent with findings from Kaplan et al. (2017), who found that individuals engaged in manual labour were more likely to smoke due to the social environment and stress associated with such occupations.

Finally, alcohol consumption was found to be a significant predictor of tobacco use in both Kenya and Tanzania, with households that consumed alcohol being more likely to use tobacco. This result supports previous research, including Mori et al. (2013), who found that alcohol use was a significant risk factor for tobacco consumption in Tanzania. Additionally, Rahman et al. (2015) found similar patterns in Bangladesh, where alcohol consumption was strongly correlated with tobacco use. However, these findings contradict the study by Ngaruiya et al. (2018), which reported no significant association between alcohol use and tobacco use in Kenya. The discrepancy may be attributed to differences in the sample populations or regional variations in alcohol and tobacco use behaviours. Overall, the link between alcohol consumption and tobacco use highlights the need for integrated public health strategies that address both risk behaviours simultaneously.

Conclusion

This study revealed that the prevalence of tobacco use in Kenya is higher than in Tanzania, with several key predictors influencing tobacco consumption in both countries. In Tanzania, significant factors associated with tobacco use include household age, education level (secondary and higher education), employment status, wealth index, marital status, and receiving text messages. In Kenya, tobacco use is influenced by age, place of residence, higher education, employment status, wealth index, marital status, and alcohol consumption. These findings highlight the multifaceted nature of tobacco use, shaped by socio-economic, educational, and lifestyle factors.

The study offers important policy implications for reducing tobacco use across different demographic groups. Key predictors such as education, marital status, and alcohol consumption suggest that tailored interventions are necessary. Educational institutions and government agencies must intensify

anti-smoking campaigns in urban and rural areas. Initiatives should include placing no-smoking signs in public spaces and educating communities through local outreach programs. Additionally, public health campaigns should specifically target working-class families, where higher tobacco use is prevalent, by enforcing smoking bans and promoting price increases on cigarettes to discourage consumption.

Addressing the role of education is essential to reducing tobacco use, particularly among younger populations and those with lower educational attainment. Integrating anti-smoking education into school curricula, particularly at the primary and secondary levels, can equip younger generations with the knowledge to avoid smoking initiation. Governments should also focus on increasing accessibility to cessation programs for individuals who wish to quit smoking, particularly in urban areas where tobacco use is higher. By providing support systems such as quit lines and nicotine replacement therapies, countries can foster a healthier population and lower the overall rates of tobacco use.

Tobacco control policies should be implemented. These include raising the legal age for purchasing tobacco products, restricting sales in certain areas, and promoting healthy lifestyle alternatives through public health campaigns. Governments should also ensure that tobacco control policies are enforced consistently, with a focus on preventing tobacco use among high-risk groups such as the youth, low-income households, and those with lower levels of education. By strengthening these policies and ensuring public awareness, Kenya and Tanzania can make significant strides in reducing tobacco use and its associated health risks.

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