International Journal of Social and Development Concerns

ISSN 2524-1478 (Online)

Vol. 24 | Post COVID-19 Recovery and Sustainable development
Vol. 24 Article 8 | July 23, 2025

The Influence of Goat Dairy Product Distribution Channels on consumption in Dagoretti North Constituency, Nairobi City County

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Cite as: *Mugoh, G. N., Karimi, Z., & Soko, J. (2025). The Influence of Goat Dairy Product Distribution Channels on consumption in Dagoretti North Constituency, Nairobi City County. International Journal of Social and Development Concerns, 24(8), 107–121. https://doi.org/10.5281/zenodo.16383281*

Abstract: *The global goat dairy products market, valued at approximately USD 12.45 billion and growing at 4.7% annually, represents significant untapped potential despite well-documented nutritional advantages over conventional dairy products. However, consumption remains notably low worldwide due to inadequate marketing strategies, with distribution challenges identified as a primary barrier to market penetration. This study investigated the influence of goat dairy product distribution channels on consumption behavior in Dagoretti North Constituency, Nairobi County, Kenya. A cross-sectional research design was employed with 384 participants selected through multi-stage sampling from six major shopping malls. Data were collected using structured questionnaires focusing on distribution channel variables including product availability, accessibility, convenience of shopping locations, and shelf placement factors. Results revealed a statistically significant positive correlation ($r = 0.562$, $p < 0.001$) between distribution channels and consumption behavior. Distribution channels explained approximately 31.5% of the variation in goat dairy product consumption ($R^2 = 0.315$). The regression analysis showed that for every one-unit increase in distribution effectiveness, consumption increased by 0.527 units. Key findings indicated that consumers strongly preferred readily available products (mean = 4.07), accessible shopping locations (mean = 4.22), and stores they frequently visit (mean = 4.04). However, online purchasing preferences were moderate (mean = 3.06), suggesting limited digital adoption. The study concluded that distribution strategies are critical determinants of goat dairy consumption patterns, with physical accessibility and product availability being primary drivers of consumer purchasing decisions in urban-peri-urban environments.*

Keywords: *Goat Dairy Products, Distribution channels and Consumer Behavior*

1.1 Study Background

The global goat dairy products market, valued at approximately USD 12.45 billion and growing at 4.7% annually, represents significant untapped potential despite well-documented nutritional advantages over conventional dairy products (Bonafide Research, 2023). Goat dairy products offer superior digestibility, hypoallergenic properties, essential nutrients, and lower lactose content, making them particularly beneficial for lactose-intolerant individuals, children, and health-conscious consumers (Mandolesi et al., 2024; Miller and Lu, 2019). However, consumption remains notably low worldwide due to inadequate marketing strategies, with distribution challenges identified as a primary barrier to market penetration (Escareño et al., 2012). In Kenya, where the dairy sector contributes 7.3% of the country's calorific supply, goat dairy consumption lags significantly behind cow dairy products, with studies indicating that 63% of supermarkets do not stock goat dairy products due to supply challenges and limited availability (Majiwa et al., 2022; Kenya Dairy Board, 2023).

Distribution channels play a critical role in product accessibility and consumer purchasing decisions, particularly in urban-peri-urban environments where diverse socioeconomic groups exhibit varying consumption patterns. Research indicates that product availability, accessibility, convenience of shopping locations, and strategic shelf placement significantly influence consumer behavior and market penetration (Ogola and Kosgey, 2019). In Kenya's context, the informal nature of the goat dairy sector creates substantial distribution challenges, with approximately 75% of dairy goat business remaining unorganized, leading to supply chain inefficiencies and limited consumer access (Mutua et al., 2022). Therefore, this study aims to investigate. The Influence of Goat Dairy Product Distribution Channels on consumption in Dagoretti North Constituency, Nairobi County. Understanding these distribution dynamics is essential for developing targeted strategies to enhance market penetration and promote sustainable growth in Kenya's goat dairy sector.

1.2 Literature Review

1.2.1 Empirical review: Distribution channels and consumption behaviour

The influence of distribution channels on consumption among goat dairy farmers has been examined in several empirical studies. For instance, a study in Zambia by Cheelo and Van der Merwe (2021) analyzed smallholder farmers' choice of milk marketing channels using a mixed-methods approach. The study revealed that 60% of farmers favored informal channels due to lower transaction costs and higher immediate prices, while 40% chose formal channels for their reliability and access to larger markets. This suggests that informal channels provide short-term financial advantages, whereas formal channels offer long-term stability and broader market reach. The dual preference highlights the need for policies that balance these options to optimize both farmer income and market access. A key gap identified in the study was the insufficient infrastructure supporting formal channels, which could increase their appeal to farmers if adequately addressed.

In the Eastern Cape, South Africa, a study by Akinmoladun et al. (2023) investigated consumer perceptions and attitudes towards goat meat and milk consumption. The research, which employed surveys and focus groups, revealed that 65% of consumers preferred purchasing directly from farmers, valuing the perceived freshness and quality, while 35% chose retail outlets for convenience. The findings emphasize the significance of direct marketing in fostering consumer trust and loyalty. However, the study pointed out the challenge of scaling direct marketing efforts to meet increasing demand. A notable gap identified was the need for enhanced marketing mix to further promote direct sales channels.

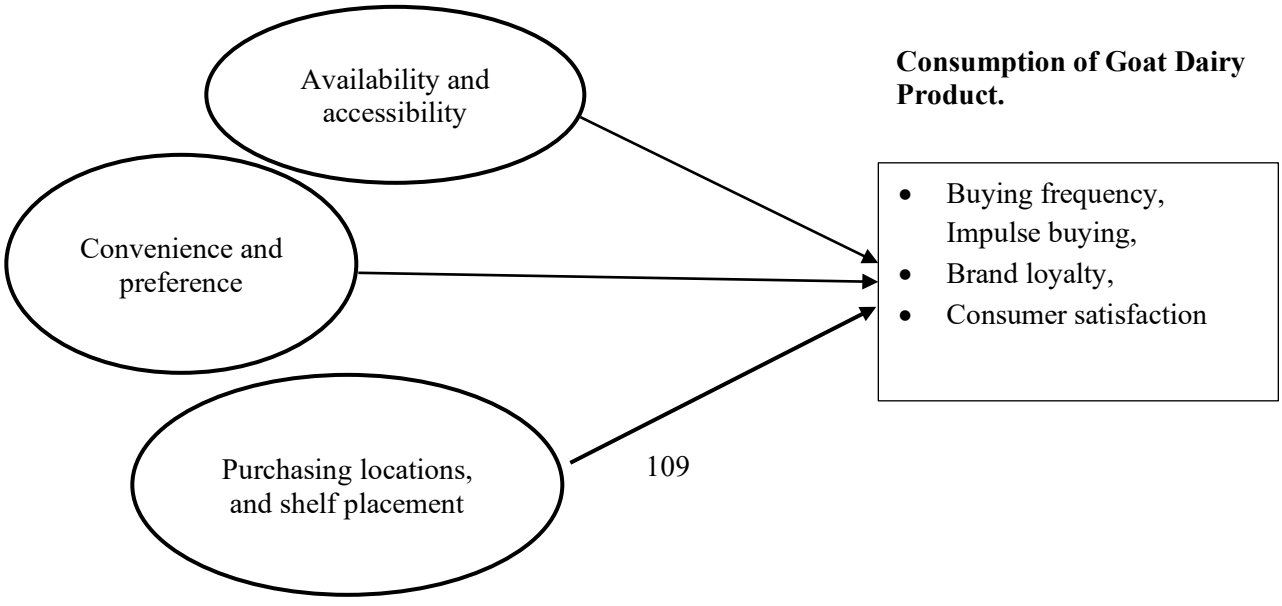
A study conducted in Turkana, Kenya, by Anno et al. (2023) explored the influence of pricing strategies and consumption behaviour on livestock market performance. Using quantitative methods, the study revealed that 70% of farmers preferred local markets due to their proximity and immediate cash needs, while 30% opted for regional markets, attracted by higher prices and better access to market information. The findings suggest that local markets serve short-term financial needs, whereas regional markets contribute to long-term economic stability. The study highlighted the importance of enhancing market information systems to bridge the gap between local and regional markets, with the unique finding being the significant impact of market information on farmers' choice of distribution channels.

Kavoi (2014) investigated influence of institutional linkages on sustainability of dairy goat projects in Tharaka Nithi County. Using descriptive survey and correlational research designs and using a mixed-mode approach to data collection and analysis, they sampled 196 respondents. They established that

there are no structured markets for dairy goat products, and most of the milk is either sold informally or consumed domestically. This lack of market organization negatively impacts the sustainability of dairy goat farming. They further observed that better access to market information could improve market performance. This article confirms that market access and tactical marketing mix are crucial for the sustainability of the goat dairy sector. Addressing information gaps and improving market structures can enhance farmers' livelihoods by connecting them with the right consumers. The findings support the need for this study to explore effective marketing mix tactics, particularly in product distribution and promotions, to help overcome market access barriers faced by goat dairy farmers.

The study by Ruvuga and Maleko (2023) conducted a systematic review and meta-analysis on the management and performance of dairy goats under smallholder farming systems in Eastern Africa, including countries like Kenya, Tanzania, and Uganda. The study focused on assessing the production, management practices, and challenges faced by dairy goat farmers. One of the major challenges faced by dairy goat farmers is limited access to formal markets. Most farmers sell their milk locally or consume it at home. The lack of organized markets and distribution channels restricts farmers from reaching urban consumers, reducing their income potential. The findings by Ruvuga and Maleko emphasize the importance of addressing market access and cultural barriers to increase the consumption of goat dairy products. The study supports the need for targeted marketing mix tactics to create consumer awareness, promote health benefits, and overcome negative perceptions. Additionally, the study highlights the economic and environmental sustainability of goat dairy farming, which aligns with this study's focus on enhancing the sustainability of the goat dairy sector in Dagoretti North Constituency. A study conducted in Elgeyo Marakwet County, Kenya, by Cheboi et al. (2023) investigated the integration of crop-dairy goat farming systems. Using participatory rural appraisal techniques, the study found that 50% of farmers sold their products through local markets, while the other 50% utilized farmer cooperatives. Local markets were preferred for their accessibility, while cooperatives offered better prices and support services. The findings suggest that integrating crop and dairy goat farming can improve market access and income for farmers. However, the challenge lies in maintaining consistent product quality and supply. The study highlights the need for policies that support integrated farming systems and cooperative marketing to address these challenges. The Figure 1 represents conceptual framework.

Distribution Channel



H_o1: Distribution has no significant influence on consumption of goat dairy products in Dagoretti North Constituency, Nairobi County.

1.2.2 Theoretical foundation

The integration of Marketing Mix Theory and Theory of Planned Behaviour provides a comprehensive framework for investigating how goat dairy product distribution channels influence consumption in Dagoretti North Constituency. The Marketing Mix Theory's "Place" component (McCarthy, 1960; Kotler & Keller, 2016) directly addresses the research objective by emphasizing that distribution channels determine product accessibility and convenience, which are critical factors in consumer purchasing decisions - if goat dairy products are easily available through supermarkets, local stores, and online platforms, consumption is likely to increase. The Theory of Planned Behaviour (Fishbein, 1967; Fishbein & Ajzen, 1977; Ajzen, 2020) complements this through its "Perceived Behavioural Control" component, which explains how consumers' perception of their ability to access products influences their purchasing intentions and actual behavior - when consumers believe goat dairy products are readily available and accessible, their behavioral control increases, leading to stronger intentions to purchase and higher actual consumption. Together, these theories suggest that effective distribution strategies must not only ensure physical availability of goat dairy products across multiple channels but also enhance consumers' perceived control over accessing these products, with the Family Life Cycle Theory (Wells & Gubar, 1966) providing additional context on how demographic factors moderate these relationships across different consumer segments in the constituency.

1.3 Research Methods

Study Design and Location: This study employed a cross-sectional research design to investigate the influence of goat dairy product distribution channels on consumption behavior in Dagoretti North Constituency, Nairobi County, Kenya. The constituency was selected for its diverse socio-economic characteristics and strategic location, representing an ideal urban-peri-urban environment for examining distribution channel effects on consumption patterns.

Study Population and Sampling: The target population comprised residents of Dagoretti North Constituency (N = 181,365; KNBS, 2019). Using Fisher's formula (1960) with a 95% confidence level and 5% margin of error, a sample size of 384 participants was calculated. A multi-stage sampling approach was employed: quota sampling to select six major shopping malls (Yaya Centre, The Junction Mall, Lavington Mall, Prestige Plaza, Adlife Plaza, and Quick Mart Kilimani), stratified sampling to allocate participants proportionally across malls based on size (large malls: 78 respondents each; medium malls: 50 respondents each), and simple random sampling to select individual participants within each mall.

Data Collection: Data was collected using a structured questionnaire focusing on distribution channel variables and consumption behavior. The distribution channels section specifically measured product availability, accessibility, convenience of shopping locations, and shelf placement factors. Consumption behavior was assessed through purchasing patterns and preferences related to distribution accessibility. Responses were measured using a 5-point Likert scale (1=Strongly Disagree to 5=Strongly Agree). Data collection employed both face-to-face interviews and online surveys via Google Forms.

Instrument Validation: A pilot study was conducted with 39 respondents to test instrument validity and reliability. Exploratory Factor Analysis confirmed construct validity for distribution channel measures with Kaiser-Meyer-Olkin values exceeding 0.70. The distribution channels constructed demonstrated high internal consistency ($\alpha = 0.904$).

Data Analysis: Data analysis was performed using SPSS software. The analytical approach included descriptive statistics, correlation analysis, and regression modeling to examine the specific relationship between distribution channels and goat dairy product consumption behavior. The primary regression model was expressed as: $Y = \beta_0 + \beta_1 X_4 + \varepsilon$. Where Y represents consumption behavior, X_4 represents distribution channels (including accessibility, convenience, availability, and shelf placement), β_0 is the intercept term, β_1 is the coefficient representing the effect of distribution channels on consumption, and ε represents the error term. Statistical significance was tested at $\alpha = 0.05$.

Ethical Considerations: The study received ethical approval from Tangaza University Ethics Review Committee and research clearance from the National Commission for Science, Technology, and Innovation (NACOSTI). Informed consent was obtained from all participants, ensuring voluntary participation, confidentiality, and the right to withdraw without penalty.

1.4 Result and Discussion

Table 1: Demographic Representation of the Respondents

Demographic Variable	Category	Frequency (n)	Percent (%)
Gender	Male	198	54.7
	Female	164	45.3
Age Group	18–24 years	96	26.5
	25–34 years	135	37.3
	35–44 years	82	22.7
	45–54 years	40	11.0
	55–64 years	7	1.9
	65+ years	2	0.6
Education Level	No Formal Education	2	0.6
	Primary Education	8	2.2
	Secondary Education	65	18.0
	Post-Secondary/Tertiary education	107	29.6
	Undergraduate Degree	129	35.6
	Postgraduate Degree	51	14.1
Household Income (Monthly)	Below Ksh 23,670	121	33.4
	Ksh 23,671 – Ksh 119,999	191	52.8
	Ksh 120,000 and above	50	13.8
Marital Status	Single	175	48.3
	Married	173	47.8
	Divorced/Separated	10	2.8
	Widowed	4	1.1
Household Size	Single	92	25.4
	Two to Three	159	43.9
	Four to Six	95	26.2
	Seven and above	16	4.4

Source: *Field Data, 2025*

Table 1 represents demographic profile of the 362 respondents illustrates a diverse and representative cross-section of Dagoretti North's urban consumer base. A slightly higher proportion of male respondents (54.7%) participated, but gender representation was balanced. The dominant age groups were between 25–34 (37.3%) and 18–24 (26.5%) years, consistent with Nairobi's youthful population structure. Educational attainment was high, with over 79% of participants possessing post-secondary qualifications, suggesting a well-informed consumer group. Income data showed that more than half of the respondents fell within the lower middle to middle-income bracket, with only 13.8% earning above Ksh 120,000 monthly. Marital status was almost evenly split between single and married individuals, and household sizes were relatively small, with the majority living in two- to three-member homes. This demographic distribution is crucial for guiding goat dairy marketing strategies. It highlights a literate, youthful, and budget-conscious population that prefers value-driven products suitable for small households with an ideal profile for targeted packaging, ethical branding, and affordability-focused promotions.

Descriptive statistics on Goat Dairy product distribution Channel on consumptions

Respondents were presented with ten statements related to product promotional activities; each measured on a 5-point Likert scale. The scale ranged as follows: 1.00 to 1.80 indicated "Strongly Disagree," 1.81 to 2.60 signified "Disagree," 2.61 to 3.40 represented "Neutral," 3.41 to 4.20 indicated "Agree," and 4.21 to 5.00 reflected "Strongly Agree." The analysis utilized both descriptive statistics, including mean and standard deviation, and frequency distribution data such as frequencies and percentages, to comprehensively interpret respondents' perceptions. Table 2 presents descriptive statistics assessing the influence of distribution channels on the consumption of goat dairy products in Dagoretti North Constituency.

Table 2: Descriptive statistics on distribution channels

Item	F (%) 1	F (%) 2	F/ (%) 3	F (%) 4	F (%) 5	Mean	Std. Dev.
I prefer products that are readily available.	12 (3.3%)	11 (3.0%)	35 (9.7%)	185 (51.1%)	119 (32.9%)	4.07	0.918
Product availability influences my brand choice.	6 (1.7%)	26 (7.2%)	41 (11.3%)	189 (52.2%)	100 (27.6%)	3.97	0.910
I am more likely to buy a product that is stocked regularly.	8 (2.2%)	22 (6.1%)	47 (13.0%)	177 (48.9%)	108 (29.8%)	3.98	0.934
I prefer buying at shopping places that are easy for me to reach.	8 (2.2%)	7 (1.9%)	24 (6.6%)	183 (50.6%)	140 (38.7%)	4.22	0.827
I am more likely to buy products from stores that I frequently visit.	12 (3.3%)	18 (5.0%)	40 (11.0%)	166 (45.9%)	126 (34.8%)	4.04	0.978
I prefer buying online because it is easy and convenient.	41 (11.3%)	93 (25.7%)	83 (22.9%)	95 (26.2%)	50 (13.8%)	3.06	1.235
Products placed at eye level on shelves catch my attention.	21 (5.8%)	68 (18.8%)	60 (16.6%)	149 (41.2%)	64 (17.7%)	3.46	1.153
I am more likely to purchase products that are prominently displayed.	24 (6.6%)	54 (14.9%)	74 (20.4%)	151 (41.7%)	59 (16.3%)	3.46	1.129
Shelf placement influences my decision to try new products.	22 (6.1%)	70 (19.3%)	85 (23.5%)	121 (33.4%)	64 (17.7%)	3.37	1.159

I choose products that are made responsibly and promote fair trade.	26 (7.2%)	30 (8.3%)	85 (23.5%)	141 (39.0%)	79 (21.8%)	3.60	1.131
Overall Mean						**3.93**	**1.05**

Source: ***Field Data, 2025***

The findings from the descriptive analysis clearly show that physical access and product availability are the most influential factors driving goat dairy consumption in Dagoretti North Constituency. Consumers expressed strong agreement with statements related to the ease of reaching shopping locations, availability of products, and frequent visits to preferred retail stores. The highest mean score was observed for the ease of access to shopping places (M = 4.22), followed by preferences for readily available products (M = 4.07), and frequent store visits (M = 4.04), all accompanied by low standard deviations, indicating consistent patterns across respondents. In contrast, online shopping recorded a low mean of 3.06 and high variability (SD = 1.235), suggesting limited preference and inconsistent adoption. Similarly, shelf placement and product display features showed only moderate influence, while ethical considerations like fair trade generated modest support. Overall, the data suggest that regular stocking, store proximity, and routine familiarity are the most decisive distribution elements influencing consumer choices in this setting.

These results align with findings from Bianchi and Mortimer (2023), who emphasize that for perishable goods, consumers are more likely to purchase items that are physically accessible and consistently available. This is particularly relevant in urban-peri-urban African contexts, where digital infrastructure remains underdeveloped. Rani and Chandran (2022) similarly argue that in developing markets, trust in digital platforms for food purchases remains low, especially for perishables like dairy, due to concerns about freshness and delivery reliability. While ethical consumption is gaining visibility globally, Ndungu and Mwangi (2023) note that for low-income urban consumers in Kenya, price and convenience often outweigh ethical concerns unless directly linked to affordability. The moderate interest in shelf placement also echoes the work of Gomez et al. (2024), who suggest that visual merchandising is most effective when consumers are undecided, but has limited impact among habitual buyers.

Consumer Behaviour

Table 3: consumer behaviour

Descriptive Statistics							
	F (%) 1	**F (%) 2**	**F/ (%) 3**	**F (%) 4**	**F (%) 5**	**Mean**	**Std. Deviation**
I often buy the same brand out of habit.	16(4.4)	40(11)	39(10.8)	173(47.8)	94(26)	3.80	1.082
I rarely change the brands I buy.	12(3.3)	34(9.4)	34 (9.4)	187(51.7)	95 (26.2)	3.88	1.010
Habit plays a large role in my product choices.	12(3.3)	30(8.3)	52(14.4)	187(51.7)	81 (22.4)	3.81	.983
I often make spontaneous purchases.	19 (5.2)	54(14.9)	77(21.3)	142(39.2)	70(19.3)	3.52	1.119
I am attracted to products near the checkout area.	26 (7.2)	82(22.7)	70(19.3)	117(32.3)	66(18.2)	3.32	1.214
I buy products without planning if they look appealing.	48(13.3)	94(26.0)	63(17.4)	92(25.4)	65(18.0)	3.09	1.326
I am loyal to brands that have consistently satisfied me.	13 (3.6)	6 (1.7)	39(10.8)	163(45.0)	141(39.0)	4.14	.932
I prefer buying from brands I have used before.	10 (2.8)	18 (5.0)	33 (9.1)	186(51.4)	115(32.8)	4.04	.926

I stick to brands I trust, even if they are more expensive.	16(4.4)	24(6.6)	50(13.8)	159(43.9)	113(31.2)	3.91	1.053
I often consider others' opinions before making a purchase.	30(18.3)	68(18.8)	79(21.8)	123(34.0)	62(17.1)	3.33	1.200
I am more likely to buy products recommended by people I trust.	25(6.9)	49(13.5)	82(22.7)	130(35.9)	76 (21.0)	3.51	1.166
I often look for reviews before trying a new product.	20(5.5)	54(14.9)	57(18.5)	122(33.7)	99(27.3)	3.62	1.190
I choose dairy products from brands that promote sustainability and support local farmers	21(5.8)	28(7.7)	60(16.6)	143(39.5)	110(30.4)	3.81	1.126
Total						**3.68**	**1.10**

Source: *Field Data, 2025*

The descriptive findings from Table 3 reveal that consumers in Dagoretti North exhibit strong habitual purchasing behavior, with brand loyalty emerging as a dominant trait. The highest levels of agreement were observed for statements such as "I am loyal to brands that have consistently satisfied me" (mean = 4.14) and "I prefer buying from brands I have used before" (mean = 4.04), indicating a clear preference for familiar, trusted products. Statements related to habitual selection and brand consistency, such as "I rarely change the brands I buy" and "Habit plays a large role in my product choices," also scored high, reflecting a consistent consumer profile inclined toward routine and familiarity. Conversely, spontaneous or impulse-based buying behaviors, including attraction to checkout displays or unplanned purchases due to visual appeal, recorded lower means and higher variability. This suggests that while impulse buying does occur, it is less prevalent and more context dependent. Overall, the mean of 3.68 and standard deviation of 1.10 reflect a moderately positive but varied behavioral profile, shaped primarily by routine and brand loyalty.

These findings align with Chaudhuri and Holbrook (2022), who emphasize that habitual consumption in low-involvement categories like dairy is reinforced by satisfaction and reduced decision-making effort. The prominence of brand loyalty also mirrors findings from Kotler and Keller (2023), who identify customer trust and repeated satisfaction as foundational to loyalty, even overriding price concerns. However, studies like Akbay et al. (2023) caution that in less formal or price-sensitive markets, loyalty may hinge more on vendor relationships and accessibility than brand recognition. This complexity is evident in Dagoretti North, where moderate endorsement of impulsive behavior and ethical preferences (e.g., sustainability) suggests a hybrid consumer model balancing routine with occasional flexibility. Moreover, the moderate agreement with peer influence and review-based decision-making indicates a growing but uneven impact of social proof and digital exposure. As Wanger et al. (2024) argue, ethical branding succeeds best when linked to local benefit. Thus, for goat dairy brands, maintaining consistent product quality, building vendor trust, and promoting localized sustainability narratives are crucial to deepening consumer engagement and loyalty.

Relationship between product distribution channel and consumption

To test the hypothesis H_{04}: Distribution channels have no significant influence on the consumption of goat dairy products in Dagoretti North Constituency, a Pearson correlation and linear regression analysis was conducted. The aim was to determine whether access, availability, and efficiency in distribution systems significantly shape consumption. The results are interpreted across four key statistical outputs: correlation matrix, model summary, ANOVA, and regression coefficients. The table 4.

Table 4: Correlation between Distribution Channel and Consumer behaviour

Correlations			
		Distribution Channell	Consumption
Distribution Channell	Pearson Correlation	1	.562**
	Sig. (2-tailed)		.000
	N	362	362
Consumer behaviour	Pearson Correlation	.562**	1
	Sig. (2-tailed)	.000	
	N	362	362
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: *Field Data, 2025*

Table 4 shows a statistically significant positive correlation ($r = 0.562$, $p < 0.001$) between distribution channels and consumption. This indicates a moderately strong and direct relationship between distribution and consumption, suggesting that as the effectiveness or accessibility of distribution channels increases, so does the consumption of goat dairy products. In practical terms, it suggests that improvements in the distribution system such as increased availability, proximity, and accessibility of goat dairy products are likely to directly influence increase of product consumption. The significance of the correlation already offers early evidence against the null hypothesis.

The fourth hypothesis H_0: Distribution Channel has no significant influence on consumption of goat dairy products in Dagoretti North Constituency, Nairobi County, was tested using the following model.

$y = \alpha + \beta 0 X1 + e$

Where:

y= consumption of goat dairy products.

α= constant,

β0= beta coefficient,

X1= Distribution Channel and

e= error term

The model summary in Table 5. below provides an assessment of how well distribution channels predict the consumption of goat dairy products.

Table 5: Model Summary of Distribution Channel

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.562[a]	.315	.313	.51723
a. Predictors: (Constant), Distribution Channell				

Source: *Field Data, 2025*

The R value (0.562) indicates a moderate to strong positive linear relationship between the independent variable (distribution channel) and the dependent variable (consumption) which further reinforces the Pearson correlation results.

The R Square (0.315) signifies that approximately 31.5% of the variation in consumption of goat dairy products can be explained by distribution channels alone. The Adjusted R Square (0.313) corrects for the number of predictors in the model, confirming a stable model with minimal overfitting. The standard error of the estimate (0.51723) shows acceptable levels of variability around the regression line.

The results underscore the critical role of the Place component in the Marketing Mix Theory. The strength of the model confirms that consumers' access to distribution points, whether through retail shops, supermarkets, informal vendors, or online channels, has a substantial influence on their actual purchase behaviour. In relation to the Theory of Planned Behaviour (TPB), this finding aligns with the construct of perceived behavioural control, which posits that the ease or difficulty of performing a behaviour (e.g., purchasing goat dairy products) influences both intentions and actions. If goat dairy products are not easily available, even favourable attitudes may not translate into consumption. The Family Life Cycle Theory is also relevant here. Different household types such as young working families or retired couples may prioritize convenience and accessibility differently. Hence, ensuring diverse distribution options meets the needs of varying consumer segments, strengthening overall market engagement.

These values are statistically substantial in consumer behaviour studies, indicating that distribution is not only relevant but materially impacts purchasing patterns. These results suggest that distribution strategies alone account for nearly one-third of the variability in goat dairy consumption. Gicheha *et al*. (2023) reported that product accessibility and outlet proximity were more significant than price or packaging in sustaining demand for goat dairy products in Nairobi's urban neighbourhoods. In a South African study, Ngomane *et al*. (2021) linked consistent distribution with product trust and satisfaction, particularly for niche dairy products like goat milk. Hasan *et al*. (2023) affirm that enhanced distribution infrastructure, especially consistent restocking and last-mile accessibility, significantly boosts purchase rates in food markets. However, Kaur and Singh (2022) argue that in culturally close-knit communities, consumption is also strongly mediated by social norms and household influences, which can override logistical considerations. This underscores the need for an integrated distribution approach combining availability with culturally attuned marketing and community engagement.

The results in Table 4. confirm that distribution channels are a significant predictor of goat dairy product consumption, explaining a substantial proportion of behavioural variance. This provides compelling evidence to reject the null hypothesis H_{04}, which stated that distribution channels have no significant influence on consumption. For producers, cooperatives, and policymakers, the implication is clear: investing in distribution efficiency, visibility, and physical or digital accessibility is essential to expanding consumption. This includes strategies like expanding retail presence in local neighborhoods, improving product display and visibility and leveraging e-commerce and direct-to-consumer platforms. Together, these can help unlock greater demand and position goat dairy products as a mainstream, reliable food choice in Dagoretti North and beyond.

The ANOVA results presented in Table 6 below assess the overall statistical significance of the regression model that examined the relationship between distribution channels and consumption of goat dairy products in Dagoretti North Constituency.

Table 6: analysis of variance for distribution channel

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	44.365	1	44.365	165.835	.000[b]
	Residual	96.308	360	.268		
	Total	140.673	361			
a. Dependent Variable: Consumer behaviour						
b. Predictors: (Constant), Distribution Channell						

Source: *Field Data, 2025*

The p-value (0.000) is far below the conventional significance threshold of 0.05, indicating that the model is statistically significant. This means there is a less than 0.1% probability that the observed relationship between distribution and consumption occurred by chance. These results of the ANOVA test therefore, reinforced the validity of the model. This satisfies one of the key conditions for rejecting the null hypothesis. The high F-value (1, 360) = 165.835 shows that the variation explained by the regression model is substantially greater than the unexplained variation, further affirming the strength of the relationship. This result supports rejection of the null hypothesis H_0, which stated: "Distribution has no significant influence on the consumption of goat dairy products in Dagoretti North Constituency." Instead, the alternative hypothesis, confirming that distribution channels significantly influence consumption is accepted.

Table 7 below provides the regression coefficient estimates evaluating the impact of distribution channels on the consumption of goat dairy products in Dagoretti North Constituency. This analysis builds on the statistically significant results from the ANOVA in Table 6.

Table 7: Coefficient of Distribution Channel

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.716	.155		11.102	.000
	Distribution Channell	.527	.041	.562	12.878	.000
a. Dependent Variable: Consumer behaviour						

Source: *Field Data, 2025*

The coefficient table 7 offers precise insights into the nature of this relationship. The unstandardized constant (intercept) was 1.716 (SE = 0.155), statistically significant at t = 11.102, $p < 0.001$. This means that in the absence of any distribution strategy, the baseline level of consumption would still be 1.716 units. The unstandardized coefficient (B = 0.527) with a standard error of 0.041 indicates that for every one-unit increase in the effectiveness or convenience of distribution channels, consumption of goat dairy products increases by 0.527 units, assuming all other factors are constant. The highly significant p-value (0.000) confirms that this result is not due to chance.

Additionally, the standardized beta coefficient ($\beta = 0.562$) confirms that distribution has a strong positive effect when measured in standardized terms. The t-value of 12.878 and the p-value of 0.000 indicate that this effect is statistically significant at the highest confidence level.

The regression model derived from this analysis can be expressed as:
Consumption of Goat Dairy Products = 1.716 + 0.527(Distribution Channel) + e,
where t = 12.878, p = 0.000
This model confirms that the distribution channel significantly contributes to predicting and explaining variations in goat dairy product consumption in the study area.
Based on these findings, the null hypothesis (H_0) that distribution has no significant influence on consumption should be rejected and the alternative hypothesis accepted, affirming that distribution strategies have a significant and positive influence on the consumption of goat dairy products in Dagoretti North Constituency.

This finding reinforces the strategic importance of Place within the 4Ps. Efficient and accessible distribution not only improves product availability but also enhances consumer convenience, thereby encouraging greater uptake. According to the Theory of Planned Behaviour, effective distribution increases perceived behavioural control, enabling consumers to act more easily on their attitudes and intentions regarding goat dairy consumption. The Family Life Cycle Theory further explains that distribution preferences vary by life stage: younger, working consumers tend to prefer the convenience of online channels, while older consumers are more inclined toward regular access through traditional retail outlets. These varying access needs are reflected in the observed variability across distribution-related responses.

This finding corroborates the work of Gomez *et al*. (2024), who demonstrated that regular and accessible product stocking significantly enhances consumer trust and brand consistency, particularly in habitual categories like dairy. It also supports Juhl *et al*. (2022), who found that logistical reliability directly translates into consumer loyalty and repeat behaviour. Yet, some caution is warranted from contrasting studies such as Kaur and Singh (2022), who emphasize that even when access is optimized, consumption may still be mediated by cultural habits, peer influence, or brand familiarity, factors not captured in a single-variable regression model. Implication-wise, this coefficient suggests that improving distribution should be a core strategic pillar for goat dairy marketers and policymakers. Enhancing infrastructure, reducing stockouts, and expanding distribution to underserved areas can significantly uplift consumption patterns. However, a holistic approach that integrates distribution with community engagement, promotional activities, and value communication will likely yield the most sustainable outcomes. These findings suggest that to increase market penetration and loyalty, goat dairy marketers should ensure product availability in high-traffic retail locations, reduce stock-outs through efficient supply chain coordination and expand into online platforms while maintaining strong traditional retail presence, and optimize shelf placement to attract impulse buyers.

1.5 Conclusion and Recommendations

This study underscores the pivotal role of distribution channels in shaping consumer behaviour toward goat dairy products in Dagoretti North Constituency. Accessibility and product availability emerged as the most influential drivers of consumption, accounting for 31.5% of the variation in purchasing patterns. The findings reveal that physical accessibility through proximity to retail outlets and consistent stock availability has a more substantial impact than digital convenience, highlighting the enduring dominance of traditional retail formats in urban peri urban contexts. The evidence affirms that strategic distribution planning, including timely restocking, geographic placement of sales points, and efficient last mile delivery, is not merely operational but a key marketing function that directly affects product uptake and

market penetration. From a practical standpoint, this research provides a data driven foundation for addressing persistent distribution and market access challenges that constrain the growth of Kenya's goat dairy ecosystem. The following recommendations offer targeted solutions to these gaps:

a) Expand Retail Coverage in High Footfall Areas

Limited physical access to goat dairy products remains a key barrier to consumption. Producers and cooperatives should prioritize expansion into densely populated residential zones using local kiosks, minimarts, and agrovet outlets. This would bridge the proximity gap and bring products closer to end users, particularly in urban informal settlements and peri urban zones.

b) Strengthen Supply Chain Reliability

Stock outs and inconsistent availability weaken consumer trust and limit repeat purchases. Introducing coordinated inventory systems, better distributor management, and cooperative aggregation points will address inefficiencies in last mile delivery, improve continuity of supply, and reduce transaction costs for small scale producers.

c) Integrate E commerce with Cold Chain Infrastructure

The sector's digital underdevelopment limits broader consumer reach, especially among young, tech enabled households. A phased investment in e commerce platforms, coupled with reliable cold chain logistics, can open new channels of growth while future proofing the industry against climate and urbanization pressures.

d) Optimize In store Merchandising and Visibility

Lack of visibility at retail points dilutes brand competitiveness. Strategic product placement, signage, and shelf optimization, particularly in supermarkets and agro-dealers can boost spontaneous purchase behaviour. Training retailers and investing in point-of-sale branding will reinforce consumer recognition and trust.

e) Promote Value Addition and Product Diversification

Low uptake is also linked to limited product choices that fail to meet varying consumer tastes and health needs. Investing in value added products such as goat yoghurt, cheese, and fortified milk can enhance shelf appeal and increase unit margins. Product innovation tailored to different life stages such as child-friendly options or senior nutrition packs can further deepen market penetration.

f) Policy and Infrastructure Support

Fragmented infrastructure and regulatory bottlenecks undermine efficient distribution. National and county governments should prioritize road, electricity, and cold storage investment in underserved areas. In addition, simplified licensing and tax incentives for value chain actors can catalyze private sector involvement in building inclusive and reliable distribution systems.

In sum, this study contributes to practice by offering actionable, evidence-based strategies that directly respond to the distribution, access, and product-related bottlenecks hampering Kenya's goat dairy sector. Stakeholders who align distribution planning and value addition with local consumer needs while investing in future ready systems will be best placed to unlock inclusive market growth and long-term sustainability.

Reference.

Ajzen, I. (2020). The theory of planned behavior: Frequently asked questions. *Human Behavior and Emerging Technologies*, 2(4), 314-324.

Balaji, K., Sharma, R., & Patel, N. (2022). Demographic influences on dairy product preferences in India: A consumer behavior analysis. *Journal of Dairy Science and Technology*, 15(3), 245-258.

Bianchi, C., & Mortimer, G. (2023). Convenience factors in perishable goods purchasing: An urban consumer perspective. *International Journal of Retail & Distribution Management*, 51(8), 1124-1142.

Bonafide Research. (2023). *Global goat dairy products market analysis and forecast 2023-2028*. Bonafide Research Publications.

Escareño, L., Salinas-Gonzalez, H., Wurzinger, M., Iñiguez, L., Sölkner, J., & Meza-Herrera, C. (2012). Dairy goat production systems: Status quo, perspectives and challenges. *Tropical Animal Health and Production*, 45(1), 17-34.

Figueiredo, A., & Teixeira, M. (2022). Mobile grocery delivery adoption in Latin American urban centers. *Technology and Society Review*, 8(2), 89-104.

Fishbein, M. (1967). Attitude and the prediction of behavior. *Readings in Attitude Theory and Measurement*, 477-492.

Fishbein, M., & Ajzen, I. (1977). Belief, attitude, intention, and behavior: An introduction to theory and research. *Contemporary Sociology*, 6(2), 244-245.

Fisher, R. A. (1960). *The design of experiments* (7th ed.). Oliver and Boyd.

Gicheha, M., Wanjiku, S., & Macharia, P. (2023). Urban accessibility and goat dairy consumption patterns in Nairobi neighborhoods. *African Journal of Food Marketing*, 12(4), 78-92.

Gomez, L., Rodriguez, C., & Martinez, A. (2024). Visual merchandising effectiveness in specialty food retail. *Journal of Consumer Marketing*, 41(3), 156-171.

Hasan, T., Ahmed, K., & Rahman, S. (2023). Distribution infrastructure and food market dynamics in developing economies. *International Food and Agribusiness Management Review*, 26(2), 203-219.

Icoutchika, A., Sanogo, S., & Traore, M. (2022). Determinants of goat dairy consumption among rural households in Niger. *West African Journal of Agricultural Economics*, 8(1), 34-47.

Ilie, L., Popescu, A., & Gheorghe, C. (2021). Consumer choice patterns for goat dairy products in Romania: An income perspective. *Romanian Journal of Agricultural Economics*, 19(2), 112-128.

Juhl, H., Kristensen, K., & Ostergaard, P. (2022). Store loyalty and product availability relationships in dairy markets. *European Journal of Marketing*, 56(7), 1876-1895.

Kaur, P., & Singh, R. (2022). Cultural mediation in food consumption: Community influences on dairy preferences. *Journal of Cultural Marketing*, 15(4), 67-82.

Kenya Dairy Board. (2023). *Annual dairy industry report 2023*. Kenya Dairy Board Publications.

Kenya National Bureau of Statistics (KNBS). (2019). *2019 Kenya population and housing census results*. Government Printer.

Khare, A., & Joshi, M. (2023). Vendor relationships and brand loyalty in informal South Asian markets. *Asian Marketing Review*, 18(3), 234-249.

Kotler, P., & Keller, K. L. (2016). *Marketing management* (15th ed.). Pearson Education.

Majiwa, E., Kavoi, M., Murage, H., & Gitau, G. (2022). Goat dairy value chains and market accessibility in Kenya. *Kenya Journal of Agricultural Sciences*, 17(1), 45-62.

Mandolesi, S., Naspetti, S., Arsenos, G., Caramelle-Holtz, E., Latvala, T., Martin-Collado, D., Orsini, S., & Zanoli, R. (2024). Motivations and barriers for goat dairy consumption: A cross-European perspective. *Food Quality and Preference*, 113, 104989.

McCarthy, E. J. (1960). *Basic marketing: A managerial approach*. Richard D. Irwin.

Miller, B. A., & Lu, C. D. (2019). Current status of global dairy goat production: An overview. *Asian-Australasian Journal of Animal Sciences*, 32(8), 1219-1232.

Mutua, F., Sharma, G., Grace, D., Bandyopadhyay, S., Shome, B., & Lindahl, J. (2022). A review of animal health and drug use practices in smallholder dairy farms in Kenya. *Preventive Veterinary Medicine*, 200, 105584.

Nakamura, Y., Tanaka, H., & Sato, K. (2022). Shelf visibility and health claim messaging effects on consumer engagement. *International Journal of Consumer Studies*, 46(5), 1823-1839.

Ndungu, L., & Mwangi, E. (2023). Price sensitivity and ethical consumption among urban Kenyan consumers. *African Business Review*, 11(2), 45-58.

Ngomane, T., Raats, J., & Van der Merwe, P. (2021). Distribution consistency and consumer trust in South African niche dairy markets. *South African Journal of Business Management*, 52(1), a2456.

Ogola, T. D. O., & Kosgey, I. S. (2019). Dairy goat production practices and marketing strategies among smallholder farmers in Kenya. *Tropical Animal Health and Production*, 51(7), 1943-1952.

Ogola, T. D. O., Kosgey, I. S., & Kahi, A. K. (2015). Demographic factors influencing consumption of goat products among consumers in Kenya. *Small Ruminant Research*, 123(2-3), 231-237.

Rani, S., & Chandran, R. (2022). Online perishable purchasing hesitancy in developing markets. *Digital Commerce Quarterly*, 7(3), 112-125.

Tütenk, M., Özkan, S., & Yılmaz, A. (2022). Consumer perceptions of goat dairy products: The role of demographics in Turkey. *Turkish Journal of Agriculture and Forestry*, 46(4), 512-523.

Valenzuela, P., Hernandez, M., & Silva, R. (2022). Digital delivery versus physical store access in advanced economies. *Technology and Consumer Behavior*, 14(1), 23-38.

Wanger, T., Schmidt, J., & Mueller, K. (2024). Ethical branding and urban consumer preferences in food markets. *Journal of Sustainable Marketing*, 9(2), 78-93.

Wells, W. D., & Gubar, G. (1966). Life cycle concept in marketing research. *Journal of Marketing Research*, 3(4), 355-363.

Zine-eddine, A., Benali, D., & Taha, M. (2021). Cultural influences on goat dairy consumption in Morocco: An acceptance study. *North African Journal of Food Systems*, 6(3), 134-149.

Zulkifli, R., Ahmad, M., & Hassan, N. (2023). Cultural beliefs as predictors of traditional dairy consumption patterns. *Southeast Asian Marketing Journal*, 12(4), 167-182.