



Consumers Brand Preference of Soft Drinks: A Comparative Analysis of Pepsi Cola and Coca-Cola Products Among Dire Dawa University Students

Fuad Indirs^{1*}, Mingizem Birhan²

¹Department of marketing Management, postgraduate student, College of Business and Economics, Dire Dawa University, P.O. Box: 1362, Dire Dawa, Ethiopia, *Email: Fuadid09@gmail.com

²Department of marketing Management, College of Business and Economics, Dire Dawa University, P.O. Box: 1362, Dire Dawa, Ethiopia, E-mail: mingizem.birhan@ddu.edu.et

Abstract

The purpose of this study was to analyzing consumer preferences for soft drink brands, specifically Pepsi Cola and Coca-Cola, in Dire Dawa, taking Dire Dawa University students as a population. This study used both primary and secondary data sources of data and employed descriptive and Inferential statistics to analysis it. The findings shows that brand comprehension had the lowest mean for both coca cola and Pepsi. However, coca is better than Pepsi with low mean differences. This suggests that both Pepsi and Coca Cola have struggled to establish a clear positioning, resulting in customers having difficulty forming a coherent perception of the brand in comparison to its competitors. Additionally, there is a strong and meaningful impact observed between brand awareness, brand comprehension, brand advertisement, brand experience, and consumer brand preference and it appears that Coca-Cola and Pepsi employ distinct advertising and sponsorship strategies to appeal to different consumer groups. Consequently, individuals' age, income, gender, and taste preferences seem to influence their choice of soft drink product. The study indicated that Brand Awareness, Brand Comprehension, Brand Advertising Brand Experience were strong, positive and significant predictor for Students' preference. It is recommended in the future researchers could specifically study the impact of social media content and awareness on youth purchasing behavior of the industry between Coca Cola and Pepsi Cola.

Keywords: Brand awareness, brand comprehension, brand advertisement, brand experience, consumer brand preference

*Corresponding author: Fuad Indirs; Fuadid09@gmail.com

1. Background of the study

Consumer preferences are defined as the subjective (individual) tastes, as measured by utility, of various bundles of goods. They permit the consumer to rank these bundles of goods according to the levels of utility they give the consumer. The preferences are independent of income and prices. Ability to purchase goods does not determine a consumer's likes or dislikes. In other words, the consumer has different preferences over the different combinations of goods defined by the set of commodity bundles (Schiffman & Kanuk, 2009).

A soft drink (also referred to as soda, pop, soda pop, coke or fizzy drink) is a drink that typically contains no alcohol, though may contain small amounts (typically less than 0.5% by volume) and is usually referred to as a sugary drink (Vedavathi et al. 2018). A sugary substance may be made of syrup of high-fructose sugar itself, juice from fruits, or a mix of different amount of named sweeteners (Elizabeth & Viswanadham, 2022). Soft drinks are likely to have some ingredients of colorings, caffeine and other different ingredients (Hudson, 2015). The high level of soda consumption has some health consequences (Nada et al. 2003). Despite the sugary substance presence, the global community, youth in particular, increase in the consumption of soft drinks to around one-can per day (Sartor et al, 2011); presently ranked 4th in the World in term of consumption of soft-drinks (Beverage Industry News, 2017). Regardless of this potential achievement, current literatures show that some soft drink companies have recorded a fall in revenue and profit due to weak consumer demand (Beverage Industry News, 2017).

As a result, it has become important for every organization to put great effort on researching consumer buying behavior to find out detailed information on what consumers purchase, where, when and why they purchase, how and how much they purchase (Vedavathi et al.. 2018). Consumers' brand preference is very important to marketers because consumers are face with so many choices in the market everyday thus marketers always have to be updated with the changes in consumer trends and lifestyles in order to maintain existing consumers as well as recruiting new ones.

Youth market in particular tends to shift its preference and habitually follows the regularity of time-based fashion and taste; this affects the buying pattern causing discomfort in business at certain times (Kagoya & Mkwizu, 2019). In response, marketers have to spend more money on market research every year to be able to predict the shifting behaviour of the youths (Kraak, Gootman & McGinnis, 2006). Such behaviors help businesses and marketing personnel to achieve different goals. It supports in differentiating what influences the choices, just as reveal

procedures for effectively controlling conduct. Consumer behavior is the investigation of movements of every sort including people, gatherings, or associations and the purchase, consumer products, and in what way customer sentiments, attitudes, and feelings influence buying habits (Grower, 2019).

The objective of this study was, therefore, to explore the consumers' brand preference of soft drinks: A comparative analysis of Pepsi Cola and Coca-Cola products among Dire Dawa University students.

1.1. Statement of the problem

Several foreign researchers working on consumers' purchasing intentions have covered fundamental research where they have highlighted the impact of key factors on brand preference (Zekiri and Hasini, 2015; Shashikiran and Behl, 2018). However, these scholars failed to indicate clearly the link and significance of these factors to consumer brand attitude. There are many studies on consumer brand preference. Naeem et al (2015) carried a research on consumer 's brand purchase intention in emerging markets in foreign context like Pakistan and these researcher's studies reveals that there are several important factors which have a huge contribution towards consumer purchase intention; however, brand image take a lead among this factors. The findings gathered by Naeem et al (2015) furthermore, suggests that factors such as perceived quality, brand awareness, brand image have proved to have a strong effect on consumer purchase intentions whereas factors as brand association and information acquisitions does not show any relation between consumer purchase intention.

local research were previous conducted. For example, researchers like Ageritu Asfaw (2021), for example, assessed the effect of advertising on consumer purchasing intention of Moha Soft drink Kool water product in Dessie Town. She concluded that impressive advertising, understanding advertising, Memorable advertising, credibility advertising, repetition and attention advertising variables has influence on consumer purchasing intention of Moha Soft drink Kool water product consumers. She, however, didn't assess the brand equity dimensions. She only focused the effects of advertisement on customers' purchase intention.

Abebaw Gebrehana (2016) Assessed Consumers' Brand Preference of Soft Drinks: A Comparative Analysis of Pepsi Cola and Coca-Cola Products Among Hawassa Tabor High School Students. He concluded that the majority (55.3%) of students' preferred Coca Cola brand. An interesting observation made in his report was that the majority (77.3%) of soft drink consumers preferred their brand based on its taste. With regard to brand equity, the result of

the study indicated that soft drink consumers are loyal to their preferred brand, get quality product, happy with price of a product, aware about its preferred brand and satisfied being a consumer of its preferred brand. However, the results of independent sample t-test revealed that both brand customers have equally loyal to their preferred brand. However, the study was purely quantitative; it did not give an opportunity to listen student' respondents the reason for preference in person. Moreover, it didn't test the hypothesis and predict variables.

Based on the above mentioned contextual gaps this research work attempted to consumers' brand preference of soft drinks by comparing between Pepsi Cola and Coca-Cola Products among Dire Dawa University Students by answering the following basic research questions.:

1. How brand awareness affects brand preferences between Coca -Cola and Pepsi Cola products?
2. Is there a relationship between brand comprehension and preference between Coca-Cola and Pepsi Cola products?
3. What are the effect of advertisement on consumers' preference between Coca-Cola and Pepsi Cola products?
4. Do respondents' socio demographic characteristics (gender, age, income consumption frequency and substitution) have differences in their brand preference?
5. Is there a relationship between brand experience and brand preferences between Coca-Cola and Pepsi Cola products?

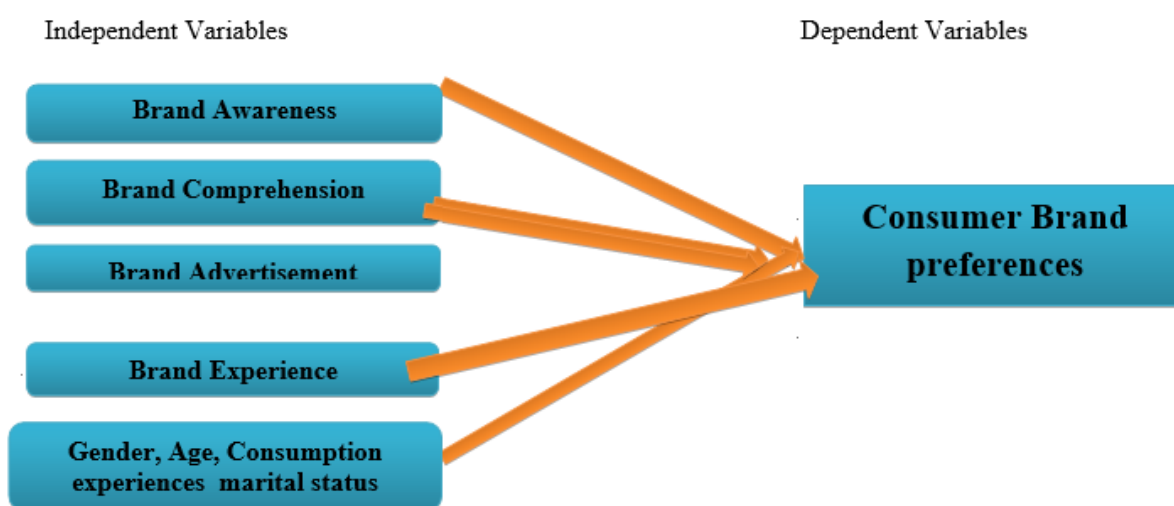
2. Litreture review

The company has to comprise in brand management to build the customer loyalty towards their brand. To fulfill this task, they need to find out what features would help to build the customer devotion towards a brand. (Louis & Lombart, 2010), has found trust, attachment, and commitment as being related to the creation of brand loyalty. In order to deliver customers with a better brand understanding, the company can include in assured tasks like a brand community activity.

Brand Preference refers fundamental step in understanding consumer choices. A deeper understanding of such preference dynamics can help marketing manager's better design marketing program and build a long term relationship with consumers. Despite the existence of some investigation how brand preference is built and changed, most of them focus on examine factors from consumer behavior perspective or advertising perspective (Schiffman and Kanuk, 2000).

Consumers' purchase process is affected by a number of different factors, some of which marketers cannot control, such as cultural, social, personal, and psychological factors.

However, brand preference in terms of brand equity measures such as loyalty, awareness, association, perceived quality, brand experience and other measures such as advertisement Sumeet and Madhuri (2015) assessed customers' preferences towards various soft drinks brands. It is concluded that difference between the determinants i.e. Brand, Price, Taste, Packaging, Advertisement, Size, Colour, are significant. The companies are therefore, advised to give more emphasis on Services of Company factor while producing Soft drinks According to Asnake Mercha (2018) that study on the effect of advertise on consumer buying behavior Nifas Silk painting factory the result showed that There is positive and significant relationship between impressive advertise and consumer buying behavior. Tatek (2018) in his research entitle the impact of TV advertisement on customer buying behavior of personal care products| also depicted that advertisement features of understandability was an important factor that 52% of the respondents agree on its influence on their purchasing decision. Hence, understandability in advertisement has an effect on purchase intentions.



Source: Adopted from (Aaker, 1992, p.32) and researcher designed from literature.

Fig 1. Conceptual Framework of the Study

3. Material and method

3.1. Data and Variables of the study

Qualitative, quantitative and mixed data were collected mainly through the instruments i.e. questionnaire, interview and descriptive and explanatory research designs were employed.

The target population for the study were students learning in Dire Dawa University whose total number was 14289 as per the information collected from the university's Human Resource database at October 2022/2023.

purposive or judgment sampling was used and the sample size a simplified formula provided by Cochran (1977) in Anonymous (2013) Kothari (2004), and Munira (2012) pointed out for finite and infinite populations. the sample size is determined using the formula below

The formula is represented as in below:

$$n = \frac{Z^2 p(1 - p)}{e^2}$$

Therefore, the sample respondents were 266. Our target population is enough to give us the confidence levels we need. However, out of 266 questionnaire distributed, only 247 were returned, i.e., 93% of the questionnaire was returned.

The questionnaire was contains diverse range of question to find out preference and feelings of customers towards Pepsi Cola and Coca Cola. Moreover, the researcher employed open ended questions and collected data using a face to face interview with respondents who were interested for interview. The interview data was also used to triangulate the questionnaire.

In the analysis after data collection of the descriptive statistics to determine, analyze, and describe the demographic characteristics of the respondents using frequency counts and percentage. The statistical comparison of the mean is the Mann–Whitney or U–test. The Mann–Whitney U-test, in contrast to the t-test and F-test, is a non-parametric test of inadequate continuous-level test. This indicates that the test makes no assumptions concerning the distribution of the variables utilized in the analysis. The Kruskal-Wallis H test was utilized to determine whether or not there is a significant difference between brand of students based on their demographic characteristics such as age group, income, marital status and their level of brand preference. It permits analysts to survey the effect of numerous indicators on the result variable: lastly multiple ordered variables ordinal regression model was implemented for each of the five independent variables. In ordinal regression, instead of modeling the probability of an individual event like in logistic regression model, the probability of that event and all others above it in the ordinal ranking is considered.

In general, the ordinal logistic regression model is expressed in logit form as follows:

$$\ln(Y_j) = \text{logit} [\pi(x)] = \ln \left(\frac{\pi_j(x)}{1 - \pi_j(x)} \right) = \alpha_j + (-\beta_1 X_1 - \beta_2 X_2 - \dots - \beta_p X_p)$$

Where $\pi_j(x) = \pi(Y \leq j | x_1, x_2, \dots, x_p)$, which is the probability of being at or below category j , given a set of predictors. $j = 1, 2 \dots J - 1$. α_j are the cut points, and $\beta_1, \beta_2 \dots \beta_p$ are logit coefficients.

The summary of the Cronbach’s Alpha on Standardized of 38 items variables used in the study was 0.918 which is again high reliability. This shown that, the items under the 38 variables listed in the Table are reliable and are found good.

4. Results and discussion

4.1. Participants of the study

Table 1: Demographic Profile Data Information

		Frequency	Percent	Cumulative Percent
Age group	18-25	171	69.3	69.3
	26-35	59	23.9	93.1
	36-45	17	6.9	100.0
	Total	247	100.0	
Gender	Male	154	62.3	62.3
	Female	93	37.7	100.0
	Total	247	100.0	
Income	less than 1000	59	23.9	23.9
	1001-5000	171	69.2	93.1
	5001-10000	17	6.9	100.0
	Total	247	100.0	
Marital status	Single	179	72.5	72.5
	Married	68	27.5	100.0
	Total	247	100.0	

Sources: - Own Survey 2024

As delineated in Table No.4.1, In the study 62.3% of the respondents are male and the rest 37.7% were female participants. Monthly income distribution of 1001 to 5000 account 69.2%. Followed by is 23.9% that account less than or equal to 1000 birr per month.

4.2. Descriptive Result of the Study

Table 2: Descriptive result of Prioritizing choosing soft drink

		Frequency	Percent	Cumulative Percent
Frequency taking soft drink	not at all	9	3.6	3.6
	1-3 times per week	34	13.8	17.4
	4 to 7 times per week	105	42.5	59.9
	more than 7 per week	98	39.7	99.6
	5.00	1	.4	100.0
	Total	247	100.0	
Coca-Cola Conception	not at all	19	7.7	7.7
	1-3 years	187	75.7	83.4
	4 to 7 years	40	16.2	99.6
	more than 7 years	1	.4	100.0
	Total	247	100.0	
Pepsi Conception	not at all	192	77.7	77.7
	1-3 years	50	20.2	98.0
	4 to 7 years	5	2.0	100.0
	Total	247	100.0	
Pepsi Substitute	coffee	76	30.8	30.8
	Tea	57	23.1	53.8
	water	58	23.5	77.3
	other brands	56	22.7	100.0
	Total	247	100.0	
Coca Cola Substitute	coffee	131	53.0	53.0
	Tea	52	21.1	74.1
	water	31	12.6	86.6
	other brands	32	13.0	99.6
	Bear	1	.4	100.0
	Total	247	100.0	
Priority for taking soft drink	Price	57	23.1	24.1
	brand	63	25.5	50.6
	refreshment	47	19.0	70.5
	to be wider awake	68	27.5	99.2
	Test	2	.8	100.0
	Total	237	96.0	
Missing	System	10	4.0	
Total		247	100.0	

Sources:- own survey data 2024

42.5% (105) reported to consume 4 to seven time per week on average, 39.7% (98) were consume than seven time per week indicating there is high conception of soft drink among university students. nearly 187(75.7%) of the respondents were start consume Coca Cola in between 1 to three years, whereas, 16.7% of university students were consuming coca nearly for the last 4 to seven year on average. Also coffee is a major substitute for both Coca-Cola and Pepsi with 53% and 30% response rate.

Table 3: Descriptive result on level of brand awareness

	N	Minimum	Maximum	Mean	Std. Deviation
Brand_Awareness_pepsi_1	247	1.00	5.00	3.6275	.85476
Brand_Awareness_coca_1	247	1.00	5.00	3.9028	.70902
Brand_Awareness_pepsi_2	247	1.00	5.00	3.6680	.90791
Brand_Awareness_coca_2	247	1.00	5.00	3.8502	.76365
Brand_Awareness_pepsi_3	247	1.00	5.00	3.7045	.82498
Brand_Awareness_coca_3	247	1.00	5.00	3.8259	.71430
Brand_Awareness_pepsi_4	247	2.00	5.00	3.6559	.85003
Brand_Awareness_coca_4	247	1.00	5.00	3.9150	.72475
Valid N (listwise)	247				

Sources: own survey data 2024

The finding indicated that here is no mean difference on level of awareness, including familiarity, recall, choosing quality and recognition of both offer. However, there is slight difference on brand recognition that gives high mean value for Coca- Cola than Pepsi cola but not significant at all.

Table 4: Descriptive result of brand Comprehension between coca- cola and Pepsi cola

	N	Minimum	Maximum	Mean	Std. Deviation
Brand_Comprehension_pepsi_1	247	1.00	5.00	3.6437	1.04502
Brand_Comprehension_coca_1	247	1.00	5.00	3.8826	.77981
Brand_Comprehension_pepsi_2	247	1.00	5.00	3.4211	.92879
Brand_Comprehension_coca_2	247	1.00	5.00	3.7611	.74054
Brand_Comprehension_pepsi_3	247	1.00	5.00	3.4332	.92536
Brand_Comprehension_coca_3	247	1.00	5.00	3.7409	.67900
Valid N (listwise)	247				

Sources:- own survey data 2024

The mean scores show that the Brand Comprehension among Coca Cola product is higher than Pepsi Cola despite slight difference found between the two brands. Understand on what this brand stands for in terms of values and social image account 3.8826 for coca cola whereas, Pepsi had mean value of 3.6437. Perceived the absolute quality and value for money had mean of 3.7611 for Coca Cola that is higher than Pepsi Cola. Beside, coca cola have positive attitude with the mean of 3.7409. This indicate irrespective of small gap on brand Comprehension among university students, Coca Cola hold difference from Pepsi.

Table 5: Descriptive result of Brand advertising

	N	Minimum	Maximum	Mean	Std. Deviation
Brand_Advertisement_pepsi_1	247	2.00	5.00	3.5668	.87105
Brand_Advertisement_coca_1	247	2.00	5.00	3.6680	.76715
Brand_Advertisement_pepsi_2	247	1.00	5.00	3.8704	.74859
Brand_Advertisement_coca_2	247	1.00	5.00	3.9879	.65940
Brand_Advertisement_pepsi_3	247	1.00	5.00	3.8745	.73559
Brand_Advertisement_coca_3	247	1.00	5.00	3.9069	.78310
Brand_Advertisement_pepsi_4	247	1.00	5.00	3.9109	.68087
Brand_Advertisement_coca_4	247	1.00	5.00	3.9312	.78043

Sources:- own survey data 2024

in the study sample, influence by advertisement account 3.5668 and 3.6680 for Pepsi and Coca-Cola respectively (SD =.87105 and .76715), the mean score for advertisement influence for Coca Cola is higher than Pepsi among DDU students; however, there is less difference in terms of mean as it shown in the data. In the second question issues of getting pleasure & entertainment when consumer see advertisement indicates mean value of 3.8704 and 3.9879 for Pepsi and Coca Cola respectively. Indicating Coca-Cola advertising is more intervening than Pepsi with mean difference. Besides, there is no dispersion among responses as shown in the table.

Table 6: Descriptive Statistics of Brand experience

	N	Minimum	Maximum	Mean	Std. Deviation
Brand_Experience_pepsi_1	247	1.00	5.00	4.0526	.74984
Brand_Experience_coca_1	247	1.00	5.00	3.9555	.69991
Brand_Experience_pepsi_2	247	1.00	5.00	3.7085	1.03006
Brand_Experience_coca_2	247	1.00	5.00	3.9757	.64346
Brand_Experience_pepsi_3	247	.00	5.00	3.6073	1.02193
Brand_Experience_coca_3	247	1.00	5.00	3.9433	.70770
Valid N (listwise)	247				

Sources:- own survey data 2024

The mean scores show that the brand experience between Coca Cola and Pepsi mean score indicates that Pepsi had higher consumer brand experience than cola with little mean difference mean =4.0526 and 3.9555). However, in creating strong impression on consumer visual sense Coca-Cola had higher mean value 3.9757. Preference with physical actions and behaviors when drinking still Coca Cola took significant mean difference on Pepsi with mean value of 3.9433. The result indicate Pepsi still dominant competitor consumer choices and rank as indicate limited gap in terms of brand experience dimension of preferences.

4.3. Assumption Test

1. Normality Test

the variables are not normally distributed. This is because the four independent and one dependent variables Sig. are less than 0.05, their variable’ “Sig.” < 0.05: Brand Awareness, Brand Comprehension, Brand Advertisement and Brand Experience between Coca Cola and Pepsi Cola had P value of less than 0.05 respectively.

Table 7. Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Brand_Awareness_pepsi	.175	247	.000	.876	247	.000
Brand_Awareness_coca	.172	247	.000	.858	247	.000
Brand_Comprehension_pepsi	.162	247	.000	.900	247	.000
Brand_Comprehension_coca	.192	247	.000	.887	247	.000
rand_Advertisement_pepsi	.175	247	.000	.856	247	.000
Brand_Advertisement_coca	.139	247	.000	.908	247	.000
Brand_Experience_pepsi	.174	247	.000	.867	247	.000
Brand_Experience_coca	.290	247	.000	.795	247	.000
Consumer_Brand_Preference	.499	247	.000	.469	247	.000

a. Lilliefors Significance Correction

Sources: own survey data 2024

2. Mann – Whitney Test for Gender Difference and Consumer Brand Preferences

Table 8. Mann – Whitney Test

Test Statistics ^a	
	Brand Preferences
Mann-Whitney U	4650.500
Wilcoxon W	7065.500
Z	-.601
Asymp. Sig. (2-tailed)	.548
a. Grouping Variable: Gender	

Sources:- own survey data 2024

The result of Mann-Whitney test analysis showed that the observed difference between male and female Dire Dawa University Students was insignificant because the Asymp. Sig (p = .548 > .05, U = 4650.5)

3. Kruksal – Wallis H Test between Age, Income and Marital Status Characteristics and Consumer Brand Preferences

Kruskal – Wallis test was used in order to investigate whether there is a significant difference in consumer brand preferences between different independent groups exist or not using the following decision rule:

If the sig. p – value is less than .05 (level of significance), reject the null hypothesis and then conclude the existence of statistically significant difference in consumer brand preferences between the indicated different categories.

3.1. Between Age Categories and Consumer Brand Preferences of DDU Students

Null Hypothesis: There is no statistically significant difference in consumer brand preferences between the different age categories of Dire Dawa University Students. That means age is a determinant factor for choosing brand offer in the market.

Table 9: Kruksal - Wallis Test Results

Test Statistics ^{a,b}	
Chi-Square	Consumer brand preferences 13.445
Df	3
Asymp. Sig.	.004
a. Kruskal Wallis Test	
b. Grouping Variable: Age Category	

Source: SPSS output, 2024

As it can be seen in Table 9, the Kruskal – Wallis H test showed that there was a statistically significant difference in consumer brand preferences between the different age categories, because $\chi^2 = 13.445$, $p = .004 < .05$. Meaning consumer brand preferences of students was significantly affected by the age differences among the Dire Dawa University Students. These differences were confirmed by rank analysis that Dire Dawa University Students in “over 18-25 years” (Mean Rank = 122.86) significantly engaged in Brand comparison than those Dire Dawa University Students in “26-35 and above age category” (Mean Rank = 90.32) which is attached in Appendices part.

Between Income and Consumer Brand Preferences

Null Hypothesis: Statistically there is no significant difference in consumer brand preferences between the different income categories of Dire Dawa University Students.

Table 10: Kruksal – Wallis Test

Test Statistics ^{a,b}	
Chi-Square	Consumer brand preferences 15.359
Df	5
Asymp. Sig.	.009
a. Kruskal Wallis Test	
b. Grouping Variable: Income Category	

Source: SPSS output, 2024

As it can be seen from, Table 10, at .05 level of significance, there was enough evidence to conclude that there was a difference in consumer brand preferences between the different income categories. Because the chi – square test statistics = 15.359, $p = .009$ which is less than .05 level of significance that leads to reject the null hypothesis that Statistically there was no significant difference in consumer brand preferences between the different income categories of Dire Dawa University Students . From this analysis, it can be inferred that income differences among Dire Dawa University Students was a decisive factor to make differences in consumer brand preferences.

Between Number of Product Substitutes in the Market and Consumer Brand Preferences

Null Hypothesis: There is no statistically significant difference in consumer brand preferences between the different number of product substitutes in the market categories of Dire Dawa University Students.

Table 11: Kruksal – Wallis test

Test Statistics^{a,b}	
	Consumer brand preferences
Chi-Square	9.139
Df	2
Asymp. Sig.	.010
a. Kruskal Wallis Test	
b. Grouping Variable: Number of product substitutes in the market	

Source: SPSS output, 2024

Concerning the number of product substitutes in the market difference among different academic status of Dire Dawa University Students with the consumer brand preferences at .05, in Table 11, there was sufficient evidence to conclude the existence of significant difference in consumer brand preferences between the different numbers of product substitutes in the market categories. Because the chi – square test statistics = 9.139, $p = .010$ which is less than .05 the significant level that leads to reject the null hypothesis that Statistically there was no significant difference in consumer brand preferences between the different number of product substitutes in the market categories of Dire Dawa University Students.

Between Purchase Intention and Consumer Brand Preferences

Null Hypothesis: Statistically there is no significant difference in consumer brand preferences between the different purchase intention levels of Dire Dawa University Students.

Table 12: Kruksal – Wallis

Test Statistics ^{a,b}	
	Consumer brand preferences
Chi-Square	11.807
Df	5
Asymp. Sig.	.038
a. Kruskal Wallis Test	
b. Grouping Variable: purchase intention Level	

Source: SPSS output, 2024

As it can be seen from Table 12, the test result shows the chi – square test statistics = 11.807, $p = .038$ which is less than the significant level .05 that leads to reject the null hypothesis.

Between Brand Awareness Level and Consumer Brand Preferences

Null Hypothesis: There is no statistically significant difference in consumer brand preferences between the different Brand Awareness level categories of Dire Dawa University Students.

Table 13: Kruksal – Wallis Test

Test Statistics ^{a,b}	
	Consumer brand preferences
Chi-Square	9.290
Df	6
Asymp. Sig.	.158
a. Kruskal Wallis Test	
b. Grouping Variable: Brand Awareness level Category	

Source: SPSS output, 2024

The last hypothesis to be tested by the Kruksal – Wallis test, as it can be seen from Table 13, is between Brand Awareness levels categories and consumer brand preferences. The test result shows 9.290 with $p = .158 > .05$ leads to fail to reject the null hypothesis. Therefore, with = .05 level of significance there was no enough evidence to conclude that statistically there was significant difference in consumer brand preferences between the different Brand Awareness levels categories.

4.4 Inferential or Econometrics Model] Analysis Results

1. Model Fitness Information

This was done by comparing a model without any explanatory variables (the baseline or intercept only model) against the model with all the explanatory variables. As it can be seen in Table 18 below, the statistically significant Chi – Square statistic of each model ($p=.05$)

indicates that the final model of each gave a significant improvement over the baseline intercept – only model.

Table 14:- Model Fitness Information for the Four Explanatory Variables

Brand Awareness	Intercept only	290.317			
	Final	223.661	66.656	14	.000
Brand Comprehension	Intercept only	325.731			
	Final	248.242	77.490	18	.000
Brand Adverting	Intercept only	232.307			
	Final	172.697	59.610	11	.000
Brand Experience	Intercept only	308.625			
	Final	271.355	37.270	16	.002

Source: Survey, 2024

2. Goodness of Fit – test

Statistically Good models have large observed significance levels since the goodness of fit measures have large observed significance level when compared with the normal significant level = .05 and coupled with the fact that ordinal regression models are valid when the normality assumptions are not met. Therefore, as it can be seen from Table 19 below, in each of the explanatory variable, the Goodness of fit – test result p – value is greater than .05 for both Pearson and deviance statistics.

Table 15: Goodness of fit – test Result for the Four Explanatory Variables

Variable		Chi – Square	Df	Sig.
brand awareness	Pearson	307.587	254	.732
	Deviance	183.217	254	1.000
brand Comprehension	Pearson	332.565	338	.573
	Deviance	231.135	338	1.000
brand advertising	Pearson	149.145	145	.390
	Deviance	112.715	145	.978
brand experience	Pearson	292.311	316	.826
	Deviance	241.536	316	.999

Source: Survey, 2024

3. Pseudo R - Square Result

Table 16: Results on the Explaining Capacity of the Four Explanatory Variables

Variable	Cox & Snell	Negelkerke	Mc Fadden
brand awareness	.547	.607	.473
Brand Comprehension	.572	.638	.494
brand advertising	.609	.683	.525
brand experience	.563	.602	.508

Source: Survey, 2024

As it can be seen in Table 16, the Nagelkerke values are the highest among the Pseudo R squares for the whole variables. This shows that 60.7%, 63.8%, 68.3%, and 60.2% of the variation in individual's consumer brand preferences was explained by each of the explanatory variables, Brand Awareness (BA) brand Comprehension (BC) brand Advertising (BA) and brand experience (BE) respectively. In other words, among the four explanatory variables, brand Advertising (BA) had greatest explaining capacity of consumer brand preferences than the others, whereas brand experience had the smallest. The remaining 39.3%, 36.2%, 31.7%, and 39.8% were accounted by the error term.

4. Test of Parallels

The entry labeled chi - square is the difference between each of the two -2 loglikelihood values in the four variables have p – values greater than .05. this shows that the chosen link function in each variable was right and this gives the assumption to proportional odds (parallel lines) since there was no sufficient evidence to reject the null hypothesis (which states that there is no significant difference between the regression coefficient across the ordered response categories) suggesting that the model assumption of equality was satisfied. In each model, the null hypothesis states that the location parameters (slope coefficients) are the same across the ordered response categories.

Table 17: Results of Test of Parallel Lines

Variable	Model	- 2Log Likelihood	Chi – square	df	Sig.
Brand Awareness (BA)	Null hypothesis	223.661	18.652	14	.179
	General	205.009			
Brand Advertising (BA)	Null hypothesis	249.242	21.014	18	.279
	General	227.228			
brand Comprehension (BC)	Null hypothesis	246.258	22.015	11	.248
	General	224.243			
brand Experiences (BE)	Null hypothesis	271.355	5.646	16	.391
	General	265.709			

Source: Survey, 2024

The Effect of Each Explanatory Variable on the Consumer Brand Preferences

As aforementioned, one of the objectives of the study was to assess the effects of each independent variable on the dependent variable - preference of students. In order to measure the effect, the most common and possibly more useful measure of effect size for categorical data is the odds ratio (Andy, 2006), because, odds ratio indicates the effect of the regression coefficient on the outcome value, which is an indicator of the change in odds resulting from a unit change in the predictor. Moreover, when the predictor variable is categorical the odds ratio is easier to explain. The investigation of the effects of Brand Awareness; brand comprehension, brand advertising and experience on the preference of the Dire Dawa

University Students which were hypothesized by: Statistically Brand Awareness; brand comprehension, brand advertising and experience have no significant effect on Dire Dawa University Students' preference were tested. The results and the discussions of these tests are presented in Table 18 below.

Table 18: Parameter Estimates of the four Independent Variables on Consumer brand preferences Pseudo R – Square value = .658

Model	Estimate	Std. Error	Wald	Sig.	95% Confidence Interval		
					Lower Bound	Upper Bound	
Threshold	[EE = 1]	11.526	1.366	71.224	.000	8.849	14.203
	[EE = 2]	16.313	1.790	83.075	.000	12.805	19.820
Location	BA	.839	.168	24.582	.000	.504	1.162
	BC	1.118	.193	33.555	.000	.740	1.497
	BA	1.149	.209	30.143	.000	.739	1.559
	BE	.591	.175	11.430	.002	.248	.933

Source: SPSS output 2024

The outcome of the regression analysis depicted in Table 18 indicates the statistical significance of each regression coefficients. As it can be seen from the table, the estimate, coefficients of all the four-predictor variables are positive which indicated that there was a positive association between each of the four independent variables and the outcome variable – consumer brand preferences level. In this regard, the null hypotheses stated that: Brand Awareness; Brand Comprehension, Brand Advertising and Experience have no statistically significant effect on Dire Dawa University Students' brand preference; based on the result of this study, the hypotheses were rejected; therefore. all of the four predictor variables have significant effect on Dire Dawa University Students' preference. Therefore, the results of the analyses indicated that preference of students was significantly associated and affected by the four variables.

Concerning the specific variables effect (OR = Odd Ratio) that is, the effect of each of the four predictor variables on Dire Dawa University students' preference, the following result is found. Brand Awareness was a strong, positive and significant predictor for Students' preference with Beta Coefficient $r = .839$ and Sig. 0.000. Thus, for every one unit increases the principle of Brand Awareness, there is a predict increase of .839 in the log odds for higher level of Students' brand preference.

Similarly, Brand Comprehension was a strong, positive and significant predictor for Students' preference with Beta Coefficient $r = 1.118$ and Sig. 0.000. Thus, for every one unit increases

the principle of Brand Comprehension, there is a predict increase of 1.118 in the log odds for higher level of Students' brand preference.

Likewise, Brand Advertising was strong, positive and significant predictor for Students' preference with Beta Coefficient $r= 1.149$ and Sig. 0.000. Thus, for every one unit increases the principle of Brand Advertising, there is a predict increase of 1.149 in the log odds for higher level of Students' brand preference.

Finally, Brand Experience was strong, positive and significant predictor for Students' preference with Beta Coefficient $r= .591$ and Sig. 0.002. Thus, for every one unit increases the principle of Brand Experience, there is a predict increase of .591 in the log odds for higher level of Students' brand preference.

4. Conclusion and Policy Implication

Customers have a preference for purchasing products from well-known brands. With so many brands to choose from, they are looking for a suitable market place and, above all, trust. While advertising alone may not have a direct impact on the buying process, companies can still leverage brand awareness, brand comprehension, and brand experience to their advantage. It's important to note that even though strong brands are often known for their extensive advertising campaigns, it doesn't necessarily mean that consumers are always aware of these campaigns. Based on the study, it was observed that Coca-Cola and Pepsi target different consumers through their advertisements and sponsorships. The choice of cola product seems to be influenced by factors such as age, income, gender, and taste preference. Therefore, it is evident that consumers play a crucial role in the marketing processes that individuals encounter in their daily lives.

Based on the Regression result, it was observed that:

- Coca-Cola and Pepsi target different consumers through their advertisements and sponsorships. The choice of cola product seems to be influenced by factors such as age, income, gender, and taste preference.
- Brand Awareness was a strong, positive and significant predictor for Students' preference with $r= .839$ and Sig. 0.000.
- Similarly, Brand Comprehension was a strong, positive and significant predictor for Students' preference with $r= 1.118$ and Sig. 0.000.
- Likewise, Brand Advertising was strong, positive and significant predictor for Students' preference with $r= 1.149$ and Sig. 0.000

- Finally, Brand Experience was strong, positive and significant predictor for Students' preference with $r = .591$ and Sig. 0.002.

Therefore, brand awareness, brand comprehension, advertisement, and brand experience have a significant and positive impact on brand preference.

5. Recommendations

- The two companies can enhance their relation level from presence up to bonding through utilizing the aforementioned component parts and customizing the brand image into cultural heritage of the nation.
- The two soft-drink companies finding imply that they are required significant investments in advert to maintain a strong presence and keeping up with competitors.
- Considering the customer's difficulty in accurately assessing the brand's standing compared to its rivals, it is recommended that Bottling Company should be customers' patronage centered to ensure the companies' marketing goals are achieved.
- Just like market research analysts, marketers for Pepsi and Coke strive to create a distinct brand identity in the minds of consumers. It relates to the extent to which consumers can recall a brand in comparison to other similar products. Marketers work diligently to enhance their brand's image, aiming to attract consumers and enhance the reputation of their products and stores, much like a market research analyst. Product positioning evolves as marketers develop a more comprehensive understanding of consumer preferences.
- Today's consumers have elevated expectations and are highly selective in their decision-making process. Having a deep understanding of consumer behavior is essential for marketers to succeed in today's ever-changing landscape. Companies may find it advantageous to include the local market's language in their international campaigns, even if English campaigns have a greater influence on consumer preferences.
- Restructuring the Ethiopian beverage market with a focus on stakeholder value can have a significant impact on consumers' buying behavior. Working towards building confidence and increasing consensus is crucial for marketers to strengthen the business and ensure active engagement in the process.
- At last, it is recommended in the future researchers to incorporate a diverse range of contexts from various areas. Additional areas that could be researched include variables such as culture, social factors, price, origin of the product, promotion, marketplace, and

roles of government. Furthermore, it is crucial to thoroughly examine the customers and marketplaces in different regions through empirical analysis. In addition, researchers can utilize consumer behavior and target groups' needs on the domestic market and multi-national companies.

Acknowledgment

The author would like to express sincere appreciation to all individuals and institutions who contributed to this study.

Conflict of interest

The author declares that there is **no conflict of interest** concerning the publication of this article. This research was conducted independently, and no financial, institutional, or personal relationships influenced the study's design, findings, or conclusions.

Reference

- Aaker, D.A. (1991), *Managing Brand Equity*, Free Press, New York, NY, Pp. 19-32.
- Aaker, D.A. (1996), *Building Strong Brands*, The Free Press, And New York, NY.
- Agarwal, M.K. And Rao, V.R. (1996), "An Empirical Comparison Of Consumer-Based Measures Of Brand Equity", *Marketing Letters*, Vol. 7 No. 3, Pp. 237-47.
- Ageritu Asfa. (2021). *Effects Of Advertisement On Customers' Purchase Intention: The Case Of Moha Soft-Drinks Kool Water Product In Dessie Town*. Un Published MA Thesis. Debre Birhan University. Debre Birhan.
- Alreck And Settle (1999). *Strategies For Building Consumer Brand Preference*. *Journal Of Product & Brand Management* Volume 8, Number 2, Pp.130-144.
- Arora And Stoner (2009). *A Mixed Method Approach To Understanding Brand Personality*. *Journal Of Product & Brand Management* 18/4, Pp. 272-283.
- Ambler, Tim (2000), *Marketing And The Bottom Line*, London: FT Prentice Hall.
- Barwise, Patrick (1993), "Brand Equity: Is Boom Or Given For Granted?" *International Journal Of Of The Market Research Society*, Vol.27, Pp.81-93.
- Bame Onalethata Kgwatalala. (2020). *Factors Influencing Consumer Purchase Intentions Of Soft Drinks: Case Study Of Spar Brands In Botswana*. *IJSER. Volume 11, Issue 8*.
- Biswas, A., & Sen, A. (1999). *Coke Vs Pepsi: Local & Global Strategy*. *Economic & Political Weekly*, 34(26), 1701-1708.
- Barwise, Patrick And Ehrenberg, Andrew (1985), "Consumer Beliefs And Brand Usage", *Journal Of The Market Research Society*, Vol.27, Pp.81-93.
- Belk, Russell (1988), "Possession And The Extended Self" *Journal Of Consumer*

- Blackston, Max (1992), "Observations: Building Brand Equity By Managing The Brand's Relationships", *Journal Of Advertising Research*, Vol.32, No.3, Pp.79-83.
- Blattberg, Robert And Deighton, John (1996) "Manage Marketing By The Customer Equity Test", *Harvard Business Review*, July-August, Pp.136-144.
- Bovee, K., Hyde, A., Midlam-Mohler, S., Rizzoni, G. Et Al. (2012). Design Of A Parallel-Series
- PHEV For The Ecocar Competition. *SAE Int. J. Fuels Lubr.*, 5 (3): 1317-1344, 2012, Doi: 10.4271-01-1762.
- Chin, T. K., & Harizan, S. H. M. (2017). *Factors Influencing Consumers' Purchase Intention Of Cosmetic*. *International Journal Of Business And Innovation* , 3 (1), 1-15
- Coca-Cola Company. "[Coca-Cola Reports Fourth Quarter And Full-Year 2022 Results](https://investors.coca-colacompany.com/news-events/press-releases/detail/1076/coca-cola-reports-fourth-quarter-and-full-year-2022-results)<https://investors.coca-colacompany.com/news-events/press-releases/detail/1076/coca-cola-reports-fourth-quarter-and-full-year-2022-results>
- Dennis A. Frank Franzak. (2008). Pitta Foundations For Building Share Of Heart In Global Brands• *Journal Of Product & Brand Management* 17(2)
- Elaine Wallace, Isabel Buil Isabel, Buil Leslie De Chernatony. (2014). Consumer Engagement With Self-Expressive Brands: Brand Love And WOM Outcomes. *Journal Of Product & Brand Management* 23. DOI: 10.1108/JPBM-06-2013-0326
- Elizabeth M, D, & Dr. N.Viswanadham. (2022). Impact Of Soft Drinks Advertisement On Consumers' Buying Behavior. *International Journal Of Engineering, Business And Management*. Vol-6, Issue-2
- Geoffrey Paul Lantos. (2011). Consumer Behavior In Action. Real-Life Applications For Marketing Managers.
- Isibor, O. F., Iyamu, O. G. & Oghenevwodokohwo, J. (2019). Consumers' Preference And Perception Of Soft Drinks In Benin City. *Advances In Management*, 18 (2) 170 -185
- J. Michael McGinnis, Jennifer Gootman, Vivica I Kraak & Vivica I Kraak. (2006). Food Marketing To Children And Youth: *Threat Or Opportunity?* DOI: 10.17226/11514
- Keller, K. L. (1993). Conceptualizing, Measuring And Managing Customer-Based Brand Equity. *Journal Of Marketing*, 57(1), 1-22.
- Keller, K. L. (2003). *Strategic Brand Management: Building, Measuring, And Managing Brand Equity*. Boston: Pearson Education.
- Kotler, P. (1999). *Kotler On Marketing: How To Create, Win And Dominate Markets*. USA: Simon & Schuster Adult Publishing Group.
- Kotler, Kartajaya, Hooi, Liu (2003). *Rethinking Marketing (Sustainable Marketing Enterprise In Asia)*. Prentice Hall, Pearson Education Asia Pte Ltd.

- Kumar, P., Raju,, K. V., (2013). The Role Of Advertising In Consumer Decision Making. *Journal Of Business And Management*, Vol. 14, No. 4, Pp. 37-45.
- Lacy-Nichols, J., Scrinis, G., & Carey, R. (2020). The Evolution Of Coca-Cola, Australia's Soft Drink Reformulation Strategy 2003-2017: A Thematic Analysis Of Corporate Documents. *Food Policy*, 90(10), 17-33
- Lacy-Nichols, Jennifer & Scrinis, Gyorgy & Carey, Rachel, 2020. "The Evolution Of Coca-Cola Australia's Soft Drink Reformulation Strategy 2003–2017: A Thematic Analysis Of Corporate Documents," *Food Policy*, Elsevier, Vol. 90(C).
- Lassar, W.; Mittal, B. And Sharma, A. (1995). Measuring Customer-Based Brand Equity. *Journal Of Consumer Marketing*,
- Levy D, Young AT. (2021). Promise, Trust, And Betrayal: Costs Of Breaching An Implicit Contract. *Southern Economic Journal*.;87:1031-1051
- Malm, M. K., & Toyama, K. (2021). The Burdens And The Benefits: Socio-Economic Impacts Of Mobile Phone Ownership In Tanzania. *World Development Perspectives*, 21(6), 100-118.
- Nada O. Kassem, Jerry W. Lee, Naomi N. Modeste, Patricia K. Johnston. (). Understanding Soft Drink Consumption Among Female Adolescents Using The Theory Of Planned Behavior . *Health Education Research*, Volume 18, Issue 3, June 2003, Pages 278–291,
- Naeem, M., Saeed, K.M., R And Aslam, A. (2015). *Consumer's Brand Purchase Intention In Emerging Markets Like Pakistan*. *Journal Of Marketing And Consumer Research*, 15. 113-120.
- Neger, M., Ahamed, B. & Mahmud, K. (2017). *Measuring Attitude Towards Soft Drinks*:
- Paracha, M. J., Waqas, M., Khan, A. R. & Ahmad, S. (2012), "Consumer Preference Coca Cola Versus Pepsi-Cola," *Global Journal Of Management And Business Research*, Volume: 12, Issue 12, Version 1.0.
- Parasuraman, A.; Zeithaml, V. A. And Berry, L.L. (1985), A Conceptual Model Of Services Quality. *Journal Of Marketing*, 49(4), 41-50.
- Parasuraman, A.; Zeithaml, V. A. And Berry, L.L. (1988), A Conceptual Model Of Services Quality. *Journal Of Marketing*, 49(4).Pp, 41-50.
- Pepsico. "Pepsico Annual Report 2022," https://www.pepsico.com/docs/default-source/annual-reports/2022-pepsico-annual-report.pdf?sfvrsn=9d046f4c_10 Page 60. Pepsico. "**Pepsico Annual Report 2022: 2022 Financial Highlights**" https://www.pepsico.com/docs/default-source/annual-reports/2022-pepsico-annual-report.pdf?sfvrsn=9d046f4c_10
- Saeidinia, M., Salehi, M., Hashemi, S.M., Darabkhani, Y.D., & Ahanijan,B. (2012). Operation Strategies For Coca-Cola Vs Pepsi Companies To Attract Their Customers. *Contemporary Marketing Review*, 1(11), 1-15. Available At: https://www.academia.edu/1775601/Operation_Strategies_For_Coca_Cola_Vs_Pepsi_Companies_To_Attract_Their_Customers?Auto=Downloadseringhaus,

- Saja A, Sara A, Deema J, Rezan S. (2019). A Strategic Approach To The Consumer Perception Of Brand On The Basis Of Brand Awareness And Brand Loyalty: A Comparative Analysis Of Coke & Pepsi Brands In Erbil KRI. IJRBS Vol 8 No 3, Special Issue ISSN: 2147-4478
- Sebelewonegel Woldesemayate (2020). Factor That Affecting Consumer Soft Drink Brand Preference In Ethiopia:The Case Of Pepsi And Coca-Cola Addis Ababa.Un Published MA Thesis. St. Mary University. Addis Ababa.
- Singaram, R., Ramasubramani, A., Mehta, A.M., & Arora, P. (2019). Coca Cola: A Study On The Marketing Strategies For Millennials Focusing On India. International Journal Of Advanced Research And Development, 4(1), 62-68. Available At: <https://www.studocu.com/in/document/university-of-delhi/marketing-management/mandatory-assignments/coca-cola-a-study-on-the-marketing-strategies-for-millenniums-focusing-on-india/10562001/view>
- Smith, E. G., Lex Van., M. & Neijens, P. C. (2006). Effects Of Advertising Likeability: A 10-Year Perspective. Journal Of Advertising Research, 46 (1), 73-83.
- Sumaya M Kagoya & Kezia Mkwizu. (2066). Factors Influencing Consumers' Convenience Shopping Of Industrial Products: A Study Of Kinondoni District.
- Munywoki Lilian Mumbua. (2017). International Journal Of Business Management & Finance 1(19): 316-331.
- Tatek Hailemariam. (2018), The Impact Of Tv Advertisements On Ethiopian Consumers: The Case Of Addis Ababa. Addis Ababa University, Unpublished Master Thesis.
- Tilde Heding, Charlotte F K. & Mogens Bjerremogens B. (2008). Brand Management Research, Theory And Practice. DOI: 10.4324/9780203996171
- Wallace, E., Buil, I., & Chernatony, L. (2014). Building Bank Brands: How Placement In Outlet Malls Affects Customer-Based Brand Equity. Journal Of Business Research, 67(7), 1516-1523. <https://doi.org/10.1016/j.jbusres.2013.05.030>
- Wang, X., Yu, C., & Wei, Y. (2012) Social Media Peer Communication And Impacts On Purchase Intentions: A Consumer Socialisation Framework. *Journal Of Interactive Marketing*, 26(4), 198–208.
- Yin, R. K. (2003) Case Study Research: Design And Methods. 3rd Edition, Sage, Thousand Oaks.
- Yoo, B. And Donthu, N. (2001) Developing And Validating A Multidimensional Consumer-Based Brand Equity Scale. Journal Of Business Research, 52, 1-14. [http://dx.doi.org/10.1016/S0148-2963\(99\)00098-3](http://dx.doi.org/10.1016/S0148-2963(99)00098-3)



Harla Journal of Sustainable Development in Business and Economics gives access to this work open access and licensed under a Creative Commons Attribution-

NonCommercial 4.0 International License.

([Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/))