RESEARCH Open Access

Factors influencing consumers purchase intention during Covid-19 pandemic in the case of Dessie Town, Ethiopia

Ahmed Mohammed Yimer^{1*}, Tsadiku Setegne Dessie¹, Seid Hussein Oumer¹ and Mohammed Yimam Ali²

Abstract

The health emergency undertaken by the Ethiopian government to counter the impact of the Covid-19 virus has been reflected in consumer behavior. The study aims to identify changes in consumer buying behavior and its effect on their purchase intention with the help of measurement of variables related to social influence, cultural value, lifestyle, psychological factors of motivation, perception, and attitude of consumers in Dessie town during the pandemic. Data were gathered from retail shops and the surrounding area with a total of valid 368 consumers responses using a convenient sampling method which was analyzed by performing descriptive statistics, comparing mean analysis correlation analysis and multiple linear regressions. The Multiple Linear Regression Model was used to check the theoretical hypotheses. According to the findings, all variables had a positive and significant influence on purchase intention. Theoretically, this study supported the view of consumer behavior toward a product that influences their behavioral intention during a pandemic crisis. The findings proposed useful information to marketers to help them develop effective marketing strategies to convince consumers during a pandemic or similar crisis. The study recommends that all factors are critical in influencing consumers' purchase intention in the COVID-19 virus context. This study adds new ways of looking that how consumers' purchase intention is influenced by the target variables of the study under the condition of pandemic disease and it guides marketers on how they should respond to customers during a crisis.

Keywords COVID-19, Consumers purchase intention, Social influence, Cultural value, Perceived safety in-store, Stayat-home lifestyle, Consumers attitude

Introduction

In today's continuously changing and dynamic business environment, it has become necessary for organizations to clearly understand and foresee how different types of consumers behave when buying different products to fulfill their needs [18] as it helps them to conceive effective strategies for attracting and retaining customers.

According to Sheth [54], all consumer behavior is location and time bound and consumers develop habits over time about what, when, and where to consume, shopping, searching for information, and post-consumption waste disposal. As of Sheth [54], the four major contexts govern consumer habits which are social, technological, legal, political, and ad hoc natural disasters such as earthquakes, hurricanes, and global pandemics.

For more than a century, the entire world has been plagued by epidemic diseases, with different names for the viruses such as Spanish flu, influenza, smallpox, cholera, swine flu, SARS, H7N9, and others, which have had a significant impact on society.

² Faculty of Business and Economics, Woldia University, Woldia, Ethiopia



^{*}Correspondence: Ahmed Mohammed Yimer ahmeduoumer123@yahoo.com

¹ Department of Marketing Management, Faculty of Business and Economics, Woldia University, Woldia, Ethiopia

Yimer et al. Future Business Journal (2023) 9:82 Page 2 of 12

COVID-19 virus was announced all over the world, with millions of people quarantined to maintain social and physical distancing by mid-March 2 in 2020. Since then, lives have been disrupted due to precautions taken to alleviate the COVID Pandemic. The unique feature of the pandemic is that it represents a perfect storm bringing together a multitude of crises-public health, economic, financial, social, and environmental problems in a single, rapid, and distressing country and society Goshu et al., [70]. As Adnan and Anwar [1] for isolation and quarantine practices, a state of emergency and taking drastic measures have been implemented governments as a result, schools, cafes, restaurants, artistic cultural events, sports events, and many social and business life activities that require face to face interactions have been halted. Physical proximity and contact among people in social areas have been reduced within the scope of personal distance rules due to virus protection and hygiene. Many new working and learning systems, such as distance working, distance learning, and online conference interviews, have begun to adapt to work and education life at a very high pace.

Likewise, Getaneh et al. [16] reported that the Ethiopian government had taken similar measures to limit the spread of the pandemic after the first case in the country was recorded on 13 March 2020. Consequently, the government took several protective and restrictive measures since 14 March 2020. As the government mandated the closure of schools and banned public gatherings of more than four people, banning all sporting activities, closing all bars and entertainment outlets, and restricting the number of customers hotels and restaurants could serve at a time and public transport providers were expected to operate at half-capacity. Those all health measures affected the national or local economic, socio-cultural, psychological, and personal issues [64].

Following the COVID-19 pandemic, the consumers' shopping practices around the world were transformed. Congruently nationwide lockdown in the study area led to a new challenge, the way consumers shop from supermarkets, grocery stores, pop stores, or local stores has been changed, such as consumers ensure a safe shopping experience, and shopkeepers maintain social distancing, personal hygiene, and sanitization facilities, minimizing the commonly touched surface at the time of shopping. In the same way, the crisis will remain extremely uncertain, and the consumers' experience was varying significantly between different consumer segments. Thus, considering such an unusual trend, it is, therefore, crucial to garnering insights into drivers of consumer buying behavior to enable marketers and corporations to align their strategies to consumer expectations and thereby optimize their market leadership during such kind of crisis. The new consumer behavior requires adapting company strategies and identifying new ways to reach the customer [15]. As an example in this sense is the growing demand for long-life food products at the expense of perishable food products during the lockdown. Furthermore, as Ivkovic [20], organizations need to understand how their customers are feeling and behaving to find specific opportunities in their sector and they must continue to articulate their commitment to customer safety and respond to the consumer demand for value and ease at any situations.

In addition, previously different scholars' have been studying consumer shopping behavior within normal conditions, which is appreciated but in the period of pandemics specifically during COVID-19 government authorities imposed various restrictions regarding the movement and out-of-home activities. Thus, consumers have to follow the safety guidelines while pursuing shopping, which is new to consumers and they have never experienced before. Following social distancing, wearing face cover, and regular sanitization are the new consumers' priorities during shopping. Surprisingly, the pandemic and its effect did not restrict consumers feel restless, dissatisfied but also businesses stayed closed and disrupted. Similarly, Yu et al. [67] stated, as people have to stay at home and practice social distancing, many businesses and industries are facing serious issues. Because of this, as Nseobot et al. [44] clarified that social lifestyle, national economic activities, and global markets were distorted. Consequently, as Sheth [54] stated during the pandemic consumer habits of buying and shopping activities have changed and span all areas of life, from how we work to how we shop to how we entertain ourselves. Hence, consumer demand has fallen as individuals reduce trips to the market and generally reduce their consumption levels and draw down savings and other assets in the face of heightened uncertainty and rising public concern (H. [34]. Sheth [54] also reported that during this COVID-19 outbreak, a rise in consumer's concern has led to a change in priorities of consumers which is now centered around most basic needs, directing demand only for hygiene, cleaning and staples products, while non-essential categories slump. The reasons for such changes may be social influence, social value, store safety concerns, brand preference, and consumer attitude [53) again the pandemic has resulted in widespread job losses, financial insecurity, and reduced discretionary spending among consumers. So, under this entire situation to undertake a study on the issue of consumer behavior is very important and reasonably ample. Therefore, the aim of the study is to determine the influence of social influence, consumers' cultural value, Stayat-home lifestyle, consumers' motivation for the brand

Yimer et al. Future Business Journal (2023) 9:82 Page 3 of 12

selection, consumers' perception to store safety, and consumers' shopping attitude on consumers purchase intention during the COVID-19 pandemic crisis in the case of Dessie Town, Ethiopia (Fig. 1).

Related literature review

Consumer buying behavior

Consumer purchasing behavior can change depending on demographic, economic, social, cultural, legal, technological, psychological, ecological, and environmental factors (M. R. [58, 51]. While all factors are well-studied aspects of consumer behavior, they have overwhelmingly been studied in a normal market context. Subsequently, the limited empirical studies conducted in a crisis context have shown consumer behavior changes (Puellas et al., 2016). Therefore, consumer behavior in a crisis context becomes the main aspect to focus on to better understand the role of consumer behavior during a pandemic.

Consumer buying behavior during covid-19

Today, companies operating in developing markets face several problems, especially in turbulence, and complex and variable climates. There are some challenging factors such as political, environmental, social, technological, economic, and legal that are compelling companies to adapt to complex and changing contexts. Despite all these challenges, firms must adapt to the changing climates and develop new marketing strategies to survive and deal with rapidly changing conditions [36]. Thus, one can predict consumer behavior in a competitive context and manage the sustainable purchasing behaviors of the consumers covering cognitive and emotional processes based on needs and demands.

As Duygun and Şen [13] discussed with evidence of TDK Dictionaries -2020, while a need is expressed as a necessity, vital, or requisition for anything, the concept of demand is defined as the tendency toward something, desire, enthusiasm, and the longing for the object or



Fig. 1 Conceptual framework of the study

circumstance thought to meet a certain deficiency. Thus, in today's world the fact that the demands are perceived as needs or that some demands can be interpreted in the status of need, especially in the context of consumer culture, is of great importance within the scope of new normal concepts that are being questioned during the COVID-19 pandemic crisis [1].

During the pandemic, people are spending less of their income on items perceived as nice-to-have or non-essential (such as clothing, shoes, make-up, jewelry, games, and electronics). Globally too, during COVID-19 the developed nations are shifting toward steady state purchasing post-stock piling [32]. The report also stated edible products are expected to have increased demand and non-edible products shall have a moderate need globally, thereby decreasing demand which includes home care, cosmetics, and personal care products. A survey on sentiments during the coronavirus crisis was carried out by McKinney from 1 to 4 May 2020. The result indicated that the majority of consumers out of the sample strongly agreed to spend their money carefully and cut back on their purchases.

Consumers' purchase intention

Purchase intention is defined because of the client's likelihood of buying a product or a service within the forthcoming, and it is straightforwardly associated with the consumer perspective (Makudza, Mugarisanwa, & Siziba, 2020). Purchase intention may be quite decision-making. The behavioral intention to action can verify the particular individual behavior, and there is a temperament to shop for the merchandise following time there's a requirement for this product. To ripen plus maintain consumers in such a large and globally competitive market, the sellers need to learn about the characteristics of the consumers, their buying behavior, and the factors that persuade them into growing a purchase intention [41].

Social influence

According to Nelson & McLeod [42], individuals will learn the skills, knowledge, and attitudes for consumption through media, parents, and peers. Consumers will follow the media, parents, and peers when they are purchasing private-label brands. Parents will influence their children's consumption values [42]. A study conducted by Ortega Vivanco [47], the effect of covid-19 on consumer behavior concludes that there is a significant relationship between changes in consumption habits and factors that influence (social, psychological, personal, and cultural) consumer behavior. Eti et al. [14] proved that social influence has a significant and positive relationship with purchase intention in social media. Hence, social influence

Yimer et al. Future Business Journal (2023) 9:82 Page 4 of 12

can be one of the factors that influence consumer buying intention. Thus, the following hypothesis was formulated:

 H_1 : Social influence is positively and significantly related to consumers' purchase intention during the COVID-19 pandemic crisis.

Cultural value

Culture has a big influence on consumer behavior. Culture refers to the total of learned beliefs, values, and customs that serve to direct the consumer behavior of members of a particular society [52]. The findings of a study conducted by Kereth [23] suggest that cultural factors exert great influences on purchasing behavior of locally produced in Tanzania. According to Alexa et al. [3], social norms have a significant positive effect on the intention to purchase sustainable brands. Furthermore, this crisis changes the relationship that consumers have with brands, as they believe that the responses of those brands to the pandemic will have an impact on their future purchasing [29, 19]. Later, the researcher expects the following relationship between consumers' cultural value and their purchase intention.

*H*₂: Consumers' cultural value is positively and significantly related to consumers' purchase intention during the COVID-19 pandemic crisis.

Stay-at-home lifestyle

Lifestyle can also influence buying behavior to a great extent. Lifestyle refers to the way a person lives in a society and is expressed by the things in his or her surroundings. It is determined by customer interests, opinions, activities, etc., and shapes his whole pattern of acting in the world (Jansson-Boyd, [71]). Based on a finding of a recent study by Tarigan et al. [61], the influence of lifestyle and sales promotion on online purchase decisions for home-cooked culinary during COVID-19 in Medan City, Indonesia, revealed that lifestyle has a positive and significant effect consumer purchasing decision. Furthermore, a study conducted in china during the pandemic states that Consumers' food-related lifestyles will positively and significantly affect their intentions to engage in purchases of organic fruit. Therefore, the researcher will expect similar findings from the study.

 H_3 : Stay at home lifestyle is positively and significantly related to consumers' purchase intention during the COVID-19 pandemic crisis.

Consumer motivation

Consumer motivation refers to the driving force within individuals that impels them to act. Motivation is produced by a state of tension that is the result of an unfulfilled need. Every person has different needs where some of them are more pressing, while others are least pressing [52]. During the pandemic confinement, report that the population is having psychological reactions and states related to attitude and motivation in mental health and physical. According to P. Mehta et al. [38], health, well-being, and food were recognized as the chief essentials for the happiness of family and society in those times. This means consumer motivation for a brand has a major impact on consumer purchase decisions during the pandemic. Thus, the researcher designed the following hypothesis.

 H_4 : Consumers' motivation toward a brand selection has a positive and significant effect on consumers' purchase intention

Perceived store image

Store image basically can be defined as customers' perception of a store or in other words what customers think of a store based on the stimuli they receive with their senses. The better the image of the store is, the more the customers will be attracted to enter it. Dimensions frequently included in the store image concept, except for store atmosphere, are for example customer's image of facilities, clientele, convenience, and products.

During Covid-19, in-store safety measure is one of the key elements in consumer shopping behavior across the world and today consumers are more conscious of healthiness. Retail outlets or shopkeepers redesign store layouts to ensure a safer in-store experience in the postpandemic era. This helps in identifying the behavioral changes for both consumers and shopkeepers. Safety measures will increase awareness among consumers to keep them safe and secure from the threat of the COVID-19 pandemic [53]. Perceptions are the process through which these sensations are selected, organized, and interpreted to form a meaningful picture of the world. People can form different perceptions of the same stimuli due to three perceptual processes: selective attention, selective distortion, and selective retention. In the selective attention process, an individual focuses only on a few stimuli to which he is exposed. Consumers might neglect many stimuli in the environment and only focus on those related to their current needs [30]. This study refers to the store image of either offering a high level of service and convenience or being similar to other stores to Covid-19.

 H_{ς} : Consumers' perceived safety toward a store safety has a positive and significant effect on consumers' purchase intention during the COVID-19 pandemic Crisis.

Yimer et al. Future Business Journal (2023) 9:82 Page 5 of 12

Consumers' attitude toward shopping

According to Hawkins & Shohet [72], an attitude is an enduring organization of motivational, emotional, perceptual, and cognitive processes to some aspect of our environment" (Hawkins et al., [72]), Gerő & Agustin [74]. Additionally, based on the various roles of a person, beliefs, values, and attitudes are constantly interacting with their reference groups [33]. In this study, a new or existing product's future demand can be predicted by measuring consumers' attitudes (Hawkins et al., [72]) cited in Gerő, D., & Agustin, O. G. [74]. Torales et al. [62], during the pandemic confinement, report that the population is having psychological reactions and states related to attitude and motivation in mental health and physical. Similarly, the relations between consumer behavior and personal, social, psychological, and cultural factors are significantly and positively associated, which provides some guidelines to understand consumer behavior and better meet needs in times of crisis [47]. Furthermore, Ortega-Vivanco [47] stated that there is a significant correlation between attitude and behavioral intention during COVID-19. Thus, the proposed hypothesis was:

H6: Consumers' attitude toward shopping has positively and significantly related to consumers' purchase intention during the COVID-19 pandemic crisis.

Research methodology

The study employed an explanatory design. Since it tried to examine the effect of consumer-oriented variables (social influence, cultural value, stay-at-home lifestyle, motivation toward brand selection, perceive store safety, and consumers' attitude value) on consumers 'purchase intentions. Primary data were collected using questionnaires from 368 consumers in Dessie Town, Amhara region during Covid-19 pandemic by applying a judgmental sampling technique to select the main consumer retail store areas and then, after every customer visiting the retail stores has been approached to be included in the sample by using the convenience-sampling method.

Reliability test

According to Hair et al. (2010), if α is greater than 0.7, it means that it has high reliability and if α is smaller than 0.3, then it implies that there is low reliability, so the Cronbach alpha value for each item presented in following Table 1 and it shows that all items are reliable.

Method of data analysis

After the collection of the data, it was carefully reviewed and checked for completeness & consistency, then it has been edited, and coded, and all kinds of data management were conducted to make it easier for the analysis, and then, it was entered and analyzed via a descriptive (Mean, standard deviation and frequency) and inferential statistics (correlation and multiple regression) using SPSS version 23 software package (Table 2).

Result and discussion

A total of 384 questionnaires were prepared and distributed, but only 368 (95.8%) were collected and used for final analysis because the rest 16 questionnaires were not filled.

Descriptive statistics

The means of the different constructs ranged from 3.71 (stay-at-home lifestyle) to 4.00 (social influence), and SD showed values ranging from 0.700 (cultural value) to 0.372 (consumers' attitude). It is noteworthy that on average social influence toward purchasing is positive (4.00) and that the level of agreement among the respondents on this construct is comparatively high as it exhibits the standard deviation (0.472).

Conversely, stay-at-home lifestyle respondents exhibited the highest level of disagreement on this construct as its standard deviation is the highest of the constructs under investigation (0.659). In general, the respondents exhibited strong values regarding all value constructs from 3.80 to 4.00 and consumers showed a slightly stronger concern based on decreasing order for social factor (4.00), store safety (3.98), consumers' motive toward the brand (3.95), consumers 'attitude (3.89), cultural value (3.86) and stay at home lifestyle (3.71) (Table 3).

This descriptive statistics result attested that the reasons behind this new consumer buying behavior were social influences, consumer cultural value, stay-at-home lifestyle, motivation toward brand selection, in-store safety, and attitude toward shopping.

Social influences driven by the pandemic influence of high preference for family daily food and health products,

Table 1 Reliability test

Measurement scale	Cronbach-Alpha	Number of items
Social influence	0.828	4
Cultural value	0.791	4
Life style	0.828	4
Consumer motives	0.894	5
Store safety	0.826	4
Consumers' Attitude	0.960	5
Consumers' Purchase intention	0.891	4
Total reliability (under total construct)	0.783	7
Total reliability (under total item)	0.903	30

Yimer et al. Future Business Journal (2023) 9:82 Page 6 of 12

 Table 2 Descriptive statistic result (scale measurement)

Measurement and constructs	N	Mean	S. D
Influence of food and health concern purchase decisions with family preference	368	4.11	.395
More prompts from significant peers pressures/e.g., Health Experts	368	4.05	.485
More exposure to information readily available from the media Channel	368	4.02	.412
Influenced by information that the majority of others know	368	3.82	.503
SSI-Total Social Influences	368	4.00	.472
Tend to place more value on health than material wealth	368	3.83	.915
Tend to place more value on support for local/ national causes of Solidarity	368	3.87	.958
Consider that after Covid-19, sustainability is a key element	368	3.92	.945
Tend to place more value on local product products	368	3.84	.742
CV-Total Consumers' Cultural Value	368	3.86	.700
All day-to-day activities become at home	368	3.77	.971
Spending less time on shopping activities	368	3.67	.915
Staying away from public gatherings places	368	4.06	.839
Maintaining social distancing	368	3.80	.646
Personal hygiene became a daily activity	368	3.66	.868
SHL-Total Stay at Home Life Style	368	3.71	.659
Value for money	368	3.87	.574
Ease of buying	368	4.04	.567
Personal safety	368	4.06	.472
Trust in brand	368	3.88	.554
Experience for the brand	368	3.96	.480
MB-Total Consumers' Motivation	368	3.95	.443
Hygiene sanitation throughout the store	368	3.88	.401
Contactless payment system	368	3.95	.389
Restrict overcrowded at the store	368	4.01	.397
Existence of product assortment	368	4.01	.499
PSS-Total Perceived Store Safety	368	3.97	.467
More preference for spending on essential products to save money	368	3.98	.449
Experience in preventive health, wellness, and food products has Increased	368	3.98	.446
Trust in brands/stores with face-to-face interaction has decreased	368	3.77	.365
Appreciation of well-designed technology for shopping has Increased	368	3.90	.365
Preference for sustainable consumption habits has increased	368	3.84	.362
AT-Total Consumers' Attitude	368	3.89	372
Your intention to purchase essential products (food, health and wellness) has increased	368	3.98	.550
You will need shops at stores with hygiene Transparency/contactless activities	368	4.00	.473
Your intention to use technologies for shopping has increased during/after the crisis	368	3.97	.497
You want to have responsible consumption habits during/after covid-19	368	3.89	.444
CPI-Total consumer Purchase intention	368	3.98	.550

Source: Researchers survey result, 2021

more peer pressure from friends/health promoters, and high media exposure were important factors. Value dimension of cultural factors such as the tendency to health value and wellness than material wealth supports each other for local and national solidary cases, the tendency to more local and essential products and changed eating habits such as restricted at-home consumption are among major reasons.

A stay-at-home lifestyle is driven by COVID-19, such as daily and routine activities being restricted only at home, hygiene and sanitation activities becoming a daily habit, maintaining social distancing principles, and being restricted away from public gathering areas where consumers' historical and emerged lifestyle during this great pandemic virus. The result matches with several studies conducted around the world—described in the literature

Yimer et al. Future Business Journal (2023) 9:82 Page 7 of 12

Table 3 Summary result of correlation analysis

Relationship by variables	R- Value	Sig	Strength of relationship	Rank	
Social influence	Purchase intention	.737	000	Strong	First
Cultural value	Purchase intention	.400	000	Moderate	Fourth
Stay at home	Purchase intention	.124	0.00	Weak	Sixth
Motivation	Purchase intention	.536	000	Moderate	Second
Store safety	Purchase intention	.517	000	Moderate	Fourth
Attitude	Purchase intention	.520	000	Moderate	Third

Source: Researchers survey result, 2021

Table 4 Model summary

Model s	Nodel summary								
Model	R	R square	Adjusted R ²	SD of the Estimate	Durbin- Watson				
1	.787	.619	.613	.34233	1.669				
a. Predict	tors: (Co	onstant), MB, S	SHL, PSS, CV, AT,	SSI					
b. Deper	ndent va	ariable: CPI							

Source: Researchers survey result, 2021

review-stated that because of the health and safety concern, imposed restrictions, financial conditions, surrounding environment people, and other realities caused the change in consumer buying behavior (Table 4).

Motivation for a particular brand selection was changed because most consumers have been sensitive to safeguarding their personal and family health safety. To this evidence, in the context of the Covid-19 pandemic, there is a change in the appreciation of the usefulness of some products, with the emphasis being on providing food and less on the luxury goods and services sector) (Khair et al. [25]). Also to this, Accenture consumer research (2020) conducted between 2 and 6 April also reported that during this COVID-19 outbreak, a rise in consumer concern has led to a change in priorities of consumers which is now centered around most basic needs, sending demand only for hygiene, cleaning and healthier products, while non-essential categories slump and the desire to shop local is also reflected in the products which consumer buy and the way they buy to support local stores as they consider them more sustainable option.

Consumers perceived safety in a particular shop like the existence of a contactless payment system, proximity to home, and restricted away from crowdies among the determinant factors. Consumers' lifestyle is the least determinant factor. Attitudes toward shopping that endured during the pandemic were mainly mindfulness about spending money, health and wellness concerns, thinking to shop at a hygienic store, more concern on commodities, and starting of appreciation to online technology for shopping activities. This is similar to descriptive studies like Mehta, [38] and Sharma, [73], health, well-being, and food were recognized as the chief essentials for the happiness of family and society in those times. The economic policies were also framed and adjusted according to social conditions, ethical values, health, and spiritual views and customers left their existing retailers which are a few miles away and the lockdown forced them to shop from nearby family-run momand-pop shops. Due to the fear of the deadly Corona virus, there is a compromise in quality, shrink in quantity, and switch of consumer brands. So having the above result, to know the strength of each influencing factor on consumer purchase intention identified at correlation analysis result (Table 5).

Inferential analysis

Multiple regression analysis

Assumptions test

Before applying regression analysis to assess the effect of independent factors on purchase intention, normality, multicollinearity, and linearity tests were conducted to ensure the appropriateness of data.

Multicollinearity test

The VIF coefficients of the independent variables—all, are less than 2.5, and the tolerance is above 0.10. Therefore, it can be concluded that the multicollinearity phenomenon did not occur and its assumption was not violated.

Normality test

Multiple regressions require that the independent variables in the analysis be normally distributed. The study involves a relatively large sample (368), and therefore, the central limit theorem could be applied; hence, there is no question about the normality of the data.

A frequency plot graph produces a kind of histogram for residuals, the option normal overlays a normal distribution to compare; here, residuals are symmetrical and bell-shaped, and it follows a normal distribution, which seems okay. Yimer et al. Future Business Journal (2023) 9:82 Page 8 of 12

Table 5 ANOVA

Model		Some of squares	Df	Mean Square	F	Sig.
1	Regression	68.759	6	11.460	97.791	.000 ^b
	Residual	42.305	361	.117		
	Total	111.064	367			
a. Depend	lent variable: CPI					
b. Predicto	ors: (Constant), MB, SHL, PS	S, CV, AT, SSI				

Source: Researchers survey result, 2021

Linearity test

Consumers' purchase intention is assumed to be impacted by changes in consumer-oriented variables (the independent variables) linearly. The plot shows the linear relationship of each independent variable with the dependent variable.

Homoscedasticity (Equal Variance)

According to Burns & Burns (2008), there should be homoscedasticity before running multiple regression analysis, and this means that the residuals (the differences between the values of the observed and predicted dependent variable) are normally distributed and that the residuals have constant variance. Therefore, the researcher concluded that the homoscedasticity assumption was satisfied and the independence of residuals was not violated.

Correlation analysis

The summary result of the correlation analysis suggested that the relationship between the six independent variables with consumers' purchase intention was moderate and positive. The strongest correlated factor is social influence (r=0.737) followed by perceived safety instore environment (r=0.517) cultural value (r=0.400), consumers' motivation (r=0.09), consumers' attitude (r=0.520), and the weakly related factor is consumers' stay at home lifestyle (r=0.124). Generally, all factors measuring consumers' purchase intention toward essential products are all positively related to their purchase intention.

R² statistic is interpreted as 61.92% of the variation in customers purchasing intention is explained by the independent variables of social influence, consumers' value of consumption, stay-at-home lifestyle, consumers' perceived safety in a store environment, consumers' motivation, and consumers' attitude, while the remaining 34.238% of the variation in purchase intention can be attributed to other variables which are not considered in this study.

The Durbin–Watson coefficient test showed there was no first-order series correlation in the model because the coefficient is in the range from 0 to 4.

The following table shows the overall significance/acceptability of the model from a statistical perspective. The model is significant because the F statistics significance value is 97.791 and the p-value (0.000) is less than (p<0.05). This indicates the variation explained by the model is not due to chance. In general, ANOVA model is statistically acceptable.

Table 6 shows the regression coefficient (β) of social influence, cultural value, and stay-at-home lifestyle, consumer's motive, perceived safety in-store environment, and consumer's attitude toward shopping. ' β ' or coefficient helps to see the direction and strength of the relationship between independent and dependent variables.

Accordingly, since the sign of the ' β ' coefficient for the independent variables is positive, there is a positive significant relationship between all the independent variables and dependent variables (consumers' purchase intention) during the COVID-19 pandemic.

Among the six independent variables, social influence toward shopping affects consumers' purchase intention more than the other independent variables, due to $\beta\!=\!0.493$. The least significant contributor variable was a stay-at-home lifestyle with $\beta\!=\!0.019$. Specifically: -

 H_I : The above table indicates that purchase intention is positive and significantly predicted by social influence (β =0.420, p<0.05), this means, the more influenced by social factors toward a particular shopping, the higher the purchase intentions. This finding is consistent with a recent study by Eti et al. [14], which revealed that social influence has a significant and positive relationship with purchase intention in social media during covid-19.

 H_2 : Cultural value predicted a positive and significant effect on purchase intentions. Results show that positive ad significant determination of cultural value on purchase intention with β =0.126, p<0.05, the higher firms work for value maximization the higher will be purchase intentions of consumers toward shopping that firm. This is quite similar to Alexa et al. [3], who depict social norms (SN) have a significant positive effect on the

Yimer et al. Future Business Journal (2023) 9:82 Page 9 of 12

Table 6 Regression coefficient

Coefficients							
Model		Unstandar	dized coefficients	Standardized Coefficients	t	Sig	Rank of importance
		В	Std. Error	Beta			
1	Constant	744	.237		-3.136	.002	
	SSI	.574	.054	.493	10.689	.000	First
	CV	.099	.029	.126	3.468	.001	Fourth
	SHL	.016	.028	.019	0.575	.025	Sixth
	MB	.113	.053	.091	2.126	.034	Fifth
	PSS	.186	.047	.158	3.974	.000	Second
	AT	.207	.059	.140	3.499	.001	Third
a. Depe	ndent Variable: CPI						

Source: Researchers survey result, 2021

intention to purchase sustainable brands. Furthermore, this crisis changes the relationship that consumers have with brands, as they believe that the responses of those brands to the pandemic have an impact on their future purchasing [29] and [19].

 H_3 : Stay at home lifestyle will positively and significantly affect consumer purchase intention. The result shows that lifestyle has a significant positive effect on their purchase intention during the COVID-19 pandemic crisis. Based on a finding of a recent study by Tarigan et al. [61], the influence of lifestyle and sales promotion on online purchase decisions for home-cooked culinary during COVID-19 in Medan City, Indonesia, revealed that lifestyle has a positive and significant effect the consumer purchasing decision. Furthermore, a study conducted in China during the pandemic states that Consumers' food-related lifestyles will positively and significantly affect their intentions to engage in purchases of organic fruit.

 H_4 : Consumers' motivation predicted a positive and significant effect on purchase intentions. The result of the study proves consumers' motivation toward shopping has a positive and significant effect on their purchase intention during the COVID-19 pandemic crisis. This means the more consumers' motivation toward a particular brand, the more consumers' purchase intention to the brand. This is consistent with the study of Torales et al. [62].

 H_5 : Perceived safety toward the store environment has a positive and significant effect on the consumers' purchase intention. The result shows that the perceived safety image of the store has important during the pandemic due to the interest in safeguarding personnel and family safe from the pandemic. So this finding is the same as other findings reviewed in the literature review part.

 H_6 : Consumer attitude has a positive and significant effect on consumer purchase intention. This means the higher consumers' positive attitude toward a product; the higher consumer will be intending to purchase. Consistently, Torales et al. [62], during the pandemic confinement, report that the population is having psychological reactions and states related to attitude and motivation in mental health and physical. Similarly, the relations between consumer behavior and personal, social, psychological, and cultural factors are significantly and positively associated, which provides some guidelines to understand consumer behavior and better meet needs in times of crisis. Furthermore, Clemens et al. [7] stated that "there is a significant correlation between the attitude and behavioral intention during COVID-19".

Conclusions

The study was designed and carried out to identify underlying determinant factors that are perceived to be important in forming purchase intention in Dessie town with the consideration of COVID-19. According to the study result, all factors identified: social influence, consumers 'cultural value, stay-at-home lifestyle, consumers' motivation, perceived safety toward the store, and consumers 'attitude were found crucial factors perceived to be important in influencing their purchase intention during the COVID-19 pandemic crisis in Dessie Town. Specifically, the study concluded that: Firstly, social influence (Family, peer pressure, media exposure, and herd mentality) influences the consumer buying decision. Secondly, cultural value to health, socio-economic solidarity to support each other, and local product consumption increased during a pandemic. Thirdly, consumer purchase intention is influenced by extent of buying easiness, personal safety, customers trust in brand and their Yimer et al. Future Business Journal (2023) 9:82 Page 10 of 12

experience of using brand. Fourthly, consumer motive toward a purchase decision is essentially affected by the value of money, accessibility, personal safety, trust, and experience of a brand. Fifthly, consumers' perception to select a particular physical store is affected by hygiene and sanitation, contactless payment systems, product assortment, and closeness to home. Finally, consumers have a positive attitude toward shopping for essential products, the value of money, contactless store, online shopping, and sustainability.

Managerial and theoretical implications of the study

Managerial implications

Based on the finding revealed that social influences have played a great role to change the attitude of consumers' purchase decisions toward a particular brand. So the various stakeholders should create herd mentality and media exposure because it pushes consumers to unusual behavior and panic buying and develops the new trend of family food and health and wellness product preference during the pandemic.

It is necessary to increase the value of consumers toward sustainable brands. Business organizations play an important role in providing support to consumers with their essential services. Examining how such roles and responsibilities can be clarified and integrated with government and regulatory responses in the future will be key to building resilience for future crises.

Due to the volatile availability of products, retailers should try to procure food and hygiene products from strong and known brands to better meet the need of the consumers during a pandemic. For hygiene brands, marketing can become an effective tool to communicate with consumers regarding product quality as it was one of the products where traditional marketing had a large effect due to lack of experience and knowledge of consumers with the products.

Marketing professionals and other related stakeholders should contribute business knowledge from consumers' perception toward in-store safety like a contactless and hygienic issue. This implied that it is also not only online, but also the requirement for physical stores with hygiene-transparency during and after COVID-19. The importance of connectivity to companies which is essential to develop an electronic marketing strategy to have consumer confidence during the uncertain context of COVID-19.

For government and business organizations should require reinforce the positive attitude of the consumer toward shopping essential products; the value of money, sustainability, and online shopping. A positive outlook is expected for food, health, and hygiene product businesses. Personal hygiene-related products, such as hand sanitizers, become daily necessities and are seeing big potential.

Theoretical implications

Studying the factors that influence consumers' purchase intention during this unprecedented time has important theoretical implications for understanding how individuals respond to crises and adapt their buying behaviors. Particularly, this research can contribute to the development of theoretical models that explain consumer decision-making processes during times of uncertainty and crisis also it can provide valuable insights into the long-term effects of this crisis on consumer behavior/purchase intention.

Limitations and future research directions

Even though a significant amount of information was provided in the study, some limitations have to be mentioned. The novelty of the topic provides insufficient information, thus increasing the difficulty in finding fundamental documentation for a literature review. So, further research will emerge and new findings will be added to more understanding of this topic. Under this study, the researcher used only quantitative data analysis, but future research can adopt a mixed research approach that can help researchers gain a deeper understanding of a phenomenon by observing human behavior and understanding the context they live in. Again, the adjusted R-square shows that the factors mentioned in this study only explain 65.8% of consumers' buying intention. The remaining percentage may result from other determinants or errors. To increase the explanatory power, future researchers could add more factors such as perceived quality, perceived price, consumers' personality, and demographic factors. Finally, the geographical coverage of the study was limited to only a Zonal town, so to identify and assure if there is different result based on cultural, ethnicity, psychological, and the like determinants, future researchers could conduct a study based on country or international level.

Abbreviations

COVID-19 Corona-virus disease

SPSS Statistical package for social science WHO World Health Organization WTO World Trade Organization

Acknowledgements

The authors express their gratitude to the anonymous reviewers for their efforts in reviewing the paper and suggesting key modifications that have strengthen the quality of the article. The authors also thank the editor for his cooperation during the review process.

Yimer et al. Future Business Journal (2023) 9:82 Page 11 of 12

Author contributions

AMY generated the idea about the research title, problem statement, and research objectives, write a literature review, questionnaire development, data analysis, and recommendations. TSD contributed to problem statement, literature writing, questionnaire development, data collection, data management & analysis. SHO contributed to literature writing, questionnaire development, data collection, data management & analysis, and recommendations. MYA contributed to data collection, data management & analysis, and recommendations. All authors read and approved the final manuscript.

Funding

The authors have not received any funding from any organization.

Availability of data and materials

All data are included in the manuscript and available on hand too.

Declarations

Ethics approval and consent to participate

Not applicable.

Consent for publication

Not applicable.

Competing interests

On behalf of all authors, the corresponding author states that there is no competing interests.

Received: 27 March 2023 Accepted: 21 July 2023 Published online: 24 October 2023

References

- Adnan M, Anwar K (2020) Online learning amid the COVID-19 pandemic: students' perspectives. Online Submiss 2(1):45–51
- Aragie E, Taffesse AS, Tamru S (2020) The short-term impact of COVID-19 on Ethiopia's economy through external sector channels: An economywide multiplier model analysis. Intl Food Policy Res Inst 154
- Alexa L, Apetrei A, Sapena J (2021) The COVID-19 lockdown affects the intention to purchase sustainable brands. Sustainability 13(6):3241
- 4. Bray JP (2008) Consumer behavior theory: approaches and models
- Brodeur A, Gray DM, Islam A, Bhuiyan S (2020) A Literature Review of the Economics of COVID-19. J Econ Survey 35:1007–1044
- Cheikh Ismail L, Osaili TM, Mohamad MN, Al Marzouqi A, Jarrar AH, Abu Jamous DO, Hasan H (2020) Eating habits and lifestyle during COVID-19 lockdown in the United Arab Emirates: a cross-sectional study. Nutrients 12(11):3314
- Clemens KS, Matkovic J, Faasse K, Geers AL (2021) The role of attitudes, affect, and income in predicting COVID-19 behavioral intentions. Front Psychol 11:567397
- Coakes S, Ong C (2011) SPSS version 18.0 for windows (version 18.0). John Wiley and Sons, Australia
- Corbetta P (2003) Quantitative and qualitative research. Social research: theory, methods and techniques, pp. 30–56
- Creswell JW (2009) Mapping the field of mixed methods research.
 SAGE Publications, Los Angeles, CA
- DeVaney SA (2016) Fifty years of consumer issues in the journal of consumer affairs. J Consum Aff 50(3):505–514
- Dhall P (2019) Quantitative data analysis methodological issues in management research: advances, challenges, and the way ahead. Emerald Publishing Limited, UK
- 13. Duygun A, Şen E (2020) Evaluation of consumer purchasing behaviors in the COVID-19 pandemic period in the context of Maslow's hierarchy of needs. PazarlamaTeorisi ve Uygulamaları Dergisi 6(1):45–68
- Eti IA, Horaira MA, Bari MM (2021) Power and stimulus of social media marketing on consumer purchase intention in Bangladesh during the COVID-19. Int J Res Bus Soc Sci (2147–4478) 10(1:28–37

- Gereffi G (2020) What does the COVID-19 pandemic teach us about global value chains? The case of medical supplies. J Int Bus Policy 3:287–301
- 74. Gerő D, Agustin OG (2020) 10th semester-Master Thesis
- Getaneh Y, Yizengaw A, Adane S, Zealiyas K, Abate Z, Leulseged S et al (2020) Global lessons and potential strategies in combating COVID-19 pandemic in Ethiopia: systematic review. medRxiv, 2020–05
- Ghosh A, Raha S (2020) Jobs, growth and sustainability: a new social contract for India's recovery. Ghosh, Arunabha| uRaha, Shuva. New Delhi, India: Council on Energy, Environment and Water (CEEW)
- Hanaysha JR (2018) An examination of the factors affecting consumer's purchase decision in the Malaysian retail market. PSU Res Rev 2(1):7–23
- He H, Harris L (2020) The impact of Covid-19 pandemic on corporate social responsibility and marketing philosophy. J BusRes 116:176–182
- 20. Ivkovic N (2021) Beyond the pandemic–a new era of consumer behavior. economic and social development: Book of Proceedings, pp 6–17
- 21. Jin SV, Muqaddam A, Ryu E (2019) Instafamous and social media influencer marketing. Mark Intell Plan 37(5):567–579
- 22. Joshi Y, Rahman Z (2019) Consumers' sustainable purchase behavior: modeling the impact of psychological factors. Ecol Econ 159:235–243
- 23. Kereth GA (2020) Cultural factors and the purchase of locally produced clothes in Tanzania: an empirical study. Nairobi J Humanit Soc Sci 4(2)
- Ketema et al. (2020). The short-term impact of COVID-19 on Ethiopia's economy through external sector channels: an economywide multiplier model analysis. Intl Food Policy Res Inst 154
- 25. Khair N, Mahadin B, Gammoh LA, Al-Twal A (2023) The inconspicuous benefits of a crisis in shifting perceptions of country image and local goods in Jordan. Int J Organ Anal
- 26. Kilgo DK, Harlow S (2019) Protests, media coverage, and a hierarchy of social struggle. Int J Press/Politics 24(4):508–530
- Kim K, Bonn MA, Cho M (2021) Clean safety message framing as survival strategies for small independent restaurants during the COVID-19 pandemic. J Hosp Tour Manag 46:423–431
- Kim S-H, Baek S-W (2020) A study on the consumer preferences and choice attributes of purchasing organic instant rice. Korean J Org Agric 28(2):189–208
- Kirk CP, Rifkin LS (2020) I'll trade your diamonds for toilet paper: consumer reacting, coping and adapting behaviors in the COVID-19 pandemic. J Bus Res 117:124–131
- 30. Kotler P (2009) Marketing management: a south Asian perspective. Pearson Education, India
- 31. Kotler P, Armstrong G (2010) Principles of marketing. Pearson Education. India
- 32. Kronthal-Sacco R, Van Holt T, Atz U, & Whelan T (2020) Sustainable purchasing patterns and consumer responsiveness to sustainability marketing messages. J Sustain Res 2(2)
- Kumar M (2018) The relationship between beliefs, values, attitudes, and behaviors. Available from: https://owlcation.com/social-sciences/Teach ing-and-Assessing-Attitudes. Accessed 6 March 2019
- Lee H, Moon SJ, Ndombi GO, Kim K-N, Berhe H, Nam EW (2020) COVID-19 perception, knowledge, and preventive practice: comparison between South Korea, Ethiopia, and the Democratic Republic of Congo. Afr J Reprod Health 24(2):66–77
- 35. Lee SM, Olson DL (2010) Convergenomics: strategic innovation in the convergence era. Gower Publishing Ltd, UK
- Mahajan S, Sonwaney V (2020) After markets close in panic: investigating consumer online apparel shopping behaviour and influencing factors. Psychol Edu J 57(9):1938–1943
- Makudza F, Mugarisanwa C, Siziba S (2020) The effect of social media on consumer purchase behaviour in the mobile telephony industry in Zimbabwe. Dutch J Financ Manag 4(2):em0065
- Mehta P, McAuley DF, Brown M, Sanchez E, Tattersall RS, Manson JJ (2020) COVID-19: consider cytokine storm syndromes and immunosuppression. The Lancet 395(10229):1033–1034
- Mehta S, Saxena T, Purohit N (2020) The new consumer behaviour paradigm amid COVID-19: permanent or transient? J Health Manag 22(2):291–301
- Milner T, Rosenstreich D (2013) A review of consumer decision-making models and development of a new model for financial services. J Financ Serv Mark 18(2):106–120

Yimer et al. Future Business Journal (2023) 9:82 Page 12 of 12

- Narwal P, Nayak JK (2019) How consumers respond to social norms: an evidence from pay-what-you-want (PWYW) pricing. J Consum Market 36(4):494–505
- 42. Nelson MR, McLeod LE (2005) Adolescent brand consciousness and product placements: awareness, liking and perceived effects on self and others. Int J consum Stud 29(6):515–528
- 43. Nisson C, & Earl A (2020) The theories of reasoned action and planned behavior. The Wiley Encyclopedia of Health Psychology, pp. 755–761
- Nseobot IR, Ahmed Soomro M, Effiong AI, Muhiyuddin Solangi G, Idongesit M, Ali Soomro F (2020) COVID-19: a situation analysis of Nigeria's economy. Abere, OJ, survival analysis of novel corona virus (2019-Ncov) using Nelson Aalen survival estimate. Int J Bus Educ Manag Stud 3(1):30–40
- 45. Olivová K (2011) Intention to buy organic food among consumers in the Czech Republic. Universitetet i Agder, University of Agder
- 46. Opute A, Iwu C, Adeola O, Mugobo V, Okeke-Uzodike O, Fagbola O, Jaiyeoba O (2020) The COVID-19 pandemic and implications for businesses: innovative retail marketing viewpoint. Retail Mark Rev 16(3):85–100
- Ortega-Vivanco M (2020) Effects of covid-19 on consumer behavior: ecuador case. RETOS. Revista Ciencias Administración Econ 10(20):233–247
- Pachauri M (2001) Consumer behavior: a literature review. Mark Rev 2(3):319–355
- Panwar D, Anand S, Ali F, Singal K (2019) Consumer decisión making process models and their applications to market strategy. Int Manag Rev 15(1):36–44
- Prasad RK, Jha MK (2014) Consumer buying decisions models: a descriptive study. Int J Innov Appl Stud 6(3):335
- Puelles M, Diaz-Bustamante M, Carcelén S (2016) Are consumers more rational and informed purchasers during recession periods? The role of Private Labels and retailing strategies. Int Rev Retail Distrib Consum Res 26(4):396–417
- 52. Schiffman L, Kanuk L (2007) Consumer behavior, 9th edn. USA
- Sehgal R, Khanna P, Malviya M, Dubey AM (2021) Shopping Safety Practices Mutate Consumer Buying Behaviour during COVID-19 Pandemic. Vision 09722629211010990
- 54. Sheth J (2020) Impact of Covid-19 on consumer behavior: Will the old habits return or die? J Bus Res 117:280–283
- 55. Sirkin M (2006) Levels of measurement and forms of data. Statistics
- Solomon M, Russell-Bennett R, Previte J (2012) Consumer behavior. Pearson Higher Education, Australia
- 57. Solomon MR (2013) Consumer behaviour: buying, having, and being, 10th Global. Prentice-Hall, New Jersey
- 58. Solomon MR, Panda TK (2004) Consumer behavior, buying, having and being. Pearson Education, India
- Stankevich A (2017) Explaining the consumer decision-making process: critical literature review. J Int Bus Res Mark 2(6)
- Taormina RJ, Gao JH (2013) Maslow and the motivation hierarchy: measuring the satisfaction of the needs. Am J Psychol 126(2):155–177
- 61. Tarigan EDS, Sabrina H, & Syahputri Y, The influence of lifestyle and sales promotion on online purchase decisions for home-cooked culinary during COVID-19 in Medan City, Indonesia
- Torales J, O'Higgins M, Castaldelli-Maia JM, Ventriglio A (2020) The outbreak of COVID-19 coronavirus and its impact on global mental health. Int J Soc Psychiatry 66(4):317–320
- 63. Tsvetkova E, & Viljanen M (2021) Pandemic effect on consumer behavior—what changed?. Innovations 0
- 64. UNICEF, Nutritional Status. https://data.unicef.org/ (2021)
- 65. Vijai C, & Nivetha P (2020) A study on coronavirus (COVID-19) impact of consumer buying behavior with special reference to Chennai City. Paper presented at the international conference on COVID-19 studies
- Yang Z, Dai Z, Yang Y, Carbonell J, Salakhutdinov R, & Le QV (2019) Client: generalized autoregressive pretraining for language understanding. arXiv preprint arXiv:1906.08237
- Yu Z, Razzaq A, Rehman A, Shah A, Jameel K, & Mor RS (2021) Disruption in supply chain and socio-economic shocks: a lesson from COVID-19 for sustainable production and consumption. Oper Manag Res 1–16
- Yuen KF, Wang X, Ma F, Li KX (2020) The psychological causes of panic buying following a health crisis. Int J Environ Res Public Health 17(10):3513

- Zaghli M, & Attouch H (2021) Factors influencing responsible consumption in a health crisis context: a Moroccan case study. Paper presented at the E3S web of conferences
- 70. Goshu D, Ferede T, Diriba G, Ketema M (2020) Economic and welfare effects of COVID-19 and responses in Ethiopia: initial insights
- Jansson-Boyd CV (2010) Consumer psychology: What it is and how it emerged. Consumer psychol 1–13
- 72. Hawkins P, Shohet R (2007) Towards a learning culture: Open University Press Milton Keynes. Leading Work with Young People 142
- Sharma-Brymer V, Brymer E (2020) Flourishing and eudaimonic wellbeing. Good Health and Well-Being, 205–214

Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Submit your manuscript to a SpringerOpen iournal and benefit from:

- ► Convenient online submission
- ► Rigorous peer review
- ▶ Open access: articles freely available online
- ► High visibility within the field
- Retaining the copyright to your article

Submit your next manuscript at ▶ springeropen.com