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Abstract

The purpose of this paper is to investigate whether religious practices in the African context can explain previously observed consumption behavior variation in the sector of beverages. This exploratory research is focused on the post-positivist epistemological posture. It is a mixed method approach with triangulation of research tools. The results indicate that religious practices and consumption behavior are strongly and sufficiently correlated. It is also found that age has a moderating effect on the relationship between religious practices and consumption behavior. The findings imply the application of a rigorous segmentation, creativity and innovation in the beverage market in order to meet consumers’ core needs and real expectations. There should be specific marketing intra-religious hyper-segmentation considerations by taking into account consumer’s age range and consumer’s religious sensitivities towards consumption. To the best of author’s knowledge, this exploratory research shows the relationship between religious practices and consumption behavior in the West African geography with some different factors that have some effects on consumer’s choices and purchasing decisions.

1. Introduction

Today, the interest of researchers on culture and consumption is oriented on religion and its influence on individuals social behavior, and their consumption behavior (Bagozzi, Wong, Abe, & Bergami, 2000; Cleveland, Laroche, & Hallah, 2010; Nassé, 2020; Nurbasari, 2015; Ruževičius & Ruževičiūtė, 2011; Sudaryanto, Imam, Anifatul, Jaloni, & Tashiya, 2021). For some contemporary researchers, the influence of religion in human society is very noticeable in all dimensions of life (Diop, 2004). However, most of the research papers that deal with a similar topic are from Western and Asian countries. In addition, these authors have chosen to conduct their research in their contexts. As a result, research in the African context is disregarded not only by Western researchers, but also by Asian researchers. Research on the relationship between religion and consumer behavior by previous researchers has focused on the degree of belief, religious beliefs, religious orientation, religious affiliation, participation at mass or worship, ethnicity, religious factors (Diop, 2012; Nassé, Ouédraogo, & Diop, 2019; Okon, Asu, & Tiku, 2014). So little is known about religious practices and consumer behavior. In the context of Burkina Faso, there is no significant research about marketing research regarding the topic of religious practices and consumption behavior until this day. This explains the exploratory nature of this research. However, in Burkina Faso, a research that has been done in the field of anthropology, communication, linguistics and which speaks succinctly about culture and consumption (Bazié, 2011; Kibora, 2015; Nassé, 2016). Thus, while the themes on culture and consumption are of interest to Western and Asian researchers, in Burkina Faso, these questions seem to be disregarded. Several reasons explain this state of research in the context. First, marketing practices are new in the context. Second, most of the marketing topics are oriented towards other areas that categorically ignore religious practices and consumption behavior because talking about religious practices and consumption refers to taboos in the context. In the Burkinabè context, there are several common consumer products, but the choice of this research has focused on products such as industrial beverages. Why investigating consumption in such an
environment and in the industrial beverages sector? There are several reasons for this. In recent years, observations show that there is an increase in the consumption of industrial beverages in the context. According to Sow (2005) the rate of industrial beverages consumption is increasing and it tripled from 1993 to 2002 for both non-alcoholic and alcoholic beverages. Indeed, industrial beverages are part of the daily events of life and customs. In Burkina Faso, beverages are considered as food (Sow, 2005). They have a religious function, and a therapeutic function (Nassè et al., 2019). Also, a very important thing is that industrial beverages help to fight vitamin deficiency, mineral salt deficiency, hunger, thirstiness, and to give energetic forces. Previous studies have shown that religious beliefs do influence consumption behavior either in other areas of consumption other than industrial beverages and in other contexts (Fam, Waller, & Erdogan, 2004; Nassè, 2019) or in the field of beverages but in other contexts (Amankwaa, Reed, & Owens, 2012). However, it is essential to corroborate a research in the West African context in general and more particularly in the context, and to determine whether the implication in religious activities influences consumption behavior in the industrial beverages sector or whether if there is no influence at all. Some researchers have shown that religious beliefs influence consumption behavior in other different contexts such as the American, Asian and European contexts (Amankwaa et al., 2012). According to these authors, individuals with a high degree of belief practice the precepts of their religion in their daily life as compared to individuals with a low degree of belief. This research seeks to find out whether individuals who are implicated into religious activities consume industrial beverages (or they do not consume industrial beverages at all). The research also seeks to know if implication in religious activities positively influences consumption behavior. Most studies have consistently shown that religious beliefs influence consumption behavior (Campanella, 2016). However, no study has so far shown whether the implication in religious activities influences consumption behavior or whether the implication in religious activities does not influence consumption behavior at all. Thus, it is good to implement such research in the African context. In Burkina Faso, religious beliefs seem to be catalysts that promote the marketing and especially the consumption of industrial non-alcoholic beverages; while ignorance in the beverage-marketing sector engenders brakes and obstacles towards the consumption of industrial non-alcoholic beverages. Observing consumption behavior in the Burkinabè industrial beverages sector might lead a researcher to wonder why some believers are more and more consuming industrial alcoholic beverages and not industrial non-alcoholic beverages. However, the promotion of industrial non-alcoholic beverages where the number of believers is high can be a source of profit for companies in this sector of activity. Thus, the research question is: What are the effects of religious practices on the consumption behavior of Burkinabè?

The specific objectives of this research are two. The first objective is to examine the relationship between the implication in religious activities and consumption behavior. The second objective is to examine the relationship between the consumers’ age, the implication in religious activities, and the consumption behavior.

2. Literature Review

According to Dumez (2011) in a literature review, it is very fundamental not only to highlight what has been demonstrated and what has not been demonstrated, but also to make a significant contribution to research. This is a more in-depth review of the literature mobilizing the cognitive dissonance theory and the different concepts in the research.

2.1. Theoretical Underpinning

2.1.1. The Theory of Cognitive Dissonance and Consumption Behavior

An individual's consumption practices and their religious beliefs or personal convictions may be at odds for one reason or for several other specific reasons. It happens that this state of affairs creates conflictual situations and this often puts the individual in an uncomfortable condition. This is called cognitive dissonance (Brunel & Gallen, 2015; Festinger, 1957; Gallen, 2001; Lee & Li, 2013; Sweeney, Hausknecht, & Soutar, 2000). The individual or consumer who is in a situation of cognitive dissonance can then seek to cancel the effects of the dissonance and balance the situation (Lee & Li, 2013) by seeking many other existing alternatives.

2.2. Conceptual Framework

2.2.1. Religious Practices

Several authors who have given the real dimensions it takes have defined the concept of religious practice. Miller (2005) defines religious practice as a lifestyle that reflects the faith of the Christian; and which may be affected by the cultural context and the daily socio-economic factors of life of a particular context. Still, Fincham and Beach (2014) define religious practice as the devotion to prayer that has an impact in the lives of individuals. For Fincham and Beach (2014) the religious practice has an effect on people lives because it acts as a protective and risk factor between individuals. In the views of Okon et al. (2014) religious practice is a concept that characterizes the Christian in his daily life and the way in which the Christian uses these financial resources in consumption. For these authors, religious practice is a lifestyle that demonstrates how the Christian believer uses his or her resources and income in the consumption of food, drink and others.
2.2.2. The Implication in Religious Activities

Mueller, Plevak, and Rummans (2001) depicts the implication in religious activities is slightly and substantially understood as a type of religious involvement that shows the degree of participation or adherence to the activities religion. Nassé (2018) also views the implication in religious activities in the same way like Mueller et al. (2001) but within a multireligious environment. For Nassé (2018), Nassé et al. (2022) the implication in religious activities refers to the level of the believer’s involvement in his or her faith activities that may be Church activities and charitable religious activities. In the present research, the implication in religious activities refers to the adherence to Church activities that involve both tangible and intangible religious practices that can be both beneficial to the Church or to the community.

2.2.3. Consumption Behavior

However, for some authors like Diop (2012), Al-Hyari, Alnsour, Al-Weshah, and Haffar (2012), Kibora (2015), Campanella (2016) the concept of consumption refers to the action of eating a particular food after having acquired it. In this research, the concept of consumption is understood as the act of using or drinking a given drink. Several authors who have different points of view depending on the socio-cultural context in which they find themselves define the concept of consumption behavior in marketing. In the Western context and in the Asian context, some authors define the concept of consumption behavior in marketing. In the American context, authors such as Zikmund and D’Amico (1996) define consumption behavior as the activities in which people engage in selections, purchases and using the products to satisfy their needs and wants.

In Europe Campanella (2016) defines consumption behavior as the how and why of individuals consume given products or services. The criticism that one can bring to the approach of the concept of consumption behavior by Campanella (2016) is that it has its sources in studies which are carried out in the context of European consumption and for that it cannot be generalized. In the African context, few authors have touched on this area of study, which relates to consumer behavior. For Diop (2004) consumption behavior corresponds to this consumption attitude adopted by individuals who consume a given product; and this attitude of consumption is specific to each socio-cultural context. However, the approach to the concept of consumption behavior a few years later by Diop (2012) is much more relevant (even if the context is still that of Senegal) in that the author shows that consumption behavior includes these values such as knowledge, beliefs, values and customs which significantly influence the purchasing and consumption choices of individuals. However, this approach to the concept of consumption behavior has its limits because it is made in the Senegalese context and on a study focused solely on the Muslim consumer. Anuar, Adam, and Omar (2012) depict consumption behavior as a general accountable attitude of consumption that is accompanied with consciousness rising on environmental protection. Agarwala, Mishra, and Singh (2019) describe consumption behavior as a given attitude that consumers exhibit towards some given products or service. In the specific context of this research, the concept of consumption behavior is approached differently not only by synthesizing what has already been said in relation to this concept but also by providing new elements. The concept of consumption behavior is defined as the way in which individuals or consumers decide, examine, evaluate products and services and then make choices in terms of purchases, consumption, tastes, in relation to their expectations or to their satisfaction and their personal experience of using these products or services.

2.2.4. Research Hypotheses and Research Model

The review of the literature has helped the researcher to bring out the following hypotheses:

$H_1$: Implication in religious activities strongly influences consumption behavior.

$H_2$: Implication in religious activities does not strongly influence consumption behavior.

$H_3$: Age is a moderator of the relationship between implication in religious activities and consumption behavior.

$H_4$: Age is not a moderator of the relationship between implication in religious activities and consumption behavior.

Figure 1 represents the research model that illustrates the different relationships between religious practices consumption behavior. The model shows that relationship between religious practices and consumption behavior is moderated by age.

![Figure 1: Research model](Source: Nassé (2018))

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3. Methodology

The methodology covers several steps.

3.1. Research General Context and Research Design

The subscribed epistemological posture is post-positivist. The approach is hypothetic-deductive with a documentary analysis, some observations, and exploratory quantitative research preceded by qualitative research, which makes it possible to determine the various items that are used in part in the construction of the quantitative questionnaire. This research is carried out in two research approaches. The first part of the conducted research in the context is a qualitative. The purpose of this qualitative research is to determine the different items of the quantitative questionnaire. Carrying out a qualitative study based on the qualitative interview makes a lot of sense for this research. Not only a qualitative research makes it possible to make the results of a quantitative research relevant, but it also brings a plus in terms of information (Van Campenhoudt & Charliet, 2014). Second, the sampling strategy used is a random sampling technique due to time constraints and insufficient resources. The interview guide is first pre-tested with consumers in order to ensure clarity and understanding of the themes by the greatest number of consumers. This first test is carried out on a reduced sample of ten (10) respondents to ensure that the various themes are well understood. The results of the pre-test allows the researcher to reduce the incidental sources of error, to revise the interview guide, to readjust it following reported observations, and to write its final version. It is assured that the composition of the sample and the method of selection of the sample is good and representative and that the sample does not contain any bias. The designed interview guide is used again to conduct interviews with respondents who are consumers of industrial beverages. This second test is carried out on a sample of sixteen respondents, with a total of twelve (12) respondents who completed the interviews. It is therefore a sample of twelve (12) respondents which is retained for the content analysis. The responses of respondents are consistent with the expected results. It is reassured that the sample meets the criteria of diversification and saturation (Van Campenhoudt & Charliet, 2014), to increase the results’ precision and this makes the results of this research very meaningful and distinctive. From the tenth (10th) interview, a saturation effect is already observed; however, it is decided to continue the semi-structured interviews’ recording to gather a significant informative data. The responses of respondents are consistent with the expected results. Despite this, in this research a key number of respondents have not participated at all in the interviews, given the socio-political context that creates psychosis in the city of Ouagadougou. The choice of this city is explained by the fact that it is the capital city with a dynamic economic activity, and a multifarious population characterized by a high rate of literacy. Also, the capital abounds with a great Christian religious diversity in which one can quote the Adventists, the Apostolics, the Assemblies of God, the Baptists, the Catholics, the Christians of the International Center of Evangelization, the Mennonites, the Christians of the deep life, and other Christian minorities. The number of restaurants or points of sales for industrial beverages as well as the number of consumers of industrial beverages are also important. The field research is carried out for a period of two (2) years. Participants are considered according to criteria which include age, sex, religion, education level, marital status and occupation and social class. The age of the participants varies from 10 to over 65. Second, the gender of the participants includes women and men who are Christians. Third, the educational level of the participants ranges from elementary school to university. For further, the participants are also from different socio-professional categories of different social classes, and they are imperatively consumers who have experience in the consumption of industrial non-alcoholic beverages. The overall qualitative data is transcribed by hand using the audio software "SONY sound organizer" to slow down the rhythm of sound system. After the coding of the data, a content analysis is carried out considering the different themes and the most relevant verbatim. In addition, the qualitative research has ethical implications because of the topic sensitivity and the socio-political situation of the country. The approach has led the researcher to respect confidentiality through deference for the anonymity of the various respondents as well as a strict consideration for their privacy (Creswell, 2009). For the qualitative research, an interview guide comprising 20 themes is used. Out of sixteen interviews that are conducted, only 12 interviews are completed. The respondents are Christians (including men and women) from different social classes with an education level ranging from primary school to University in the city of Ouagadougou. First, Table 8 presents the different religious affiliation of the respondents of the qualitative research (see appendices). Second, Table 9 presents the age range of the respondents of the qualitative research (see appendices).

The results of the qualitative research have made it possible to generate the items of the variables and to construct the questionnaire for the quantitative research. The present research is therefore an exploratory mixed research because there is no previous marketing research in the context and on the topic. Therefore, the aim of this research is to explore the context of Burkina Faso through a quantitative research which design is as follows.

3.2. Quantitative Research Instruments

This section focuses on the description of the questionnaire for the quantitative research. It shows the number of questions, the focus of the questions, or the origin of the questions. The research is therefore carried
out using an instrument which is a paper questionnaire. Thus, to ensure the quality of the responses, the questionnaire for collecting quantitative data in the field is validated by teachers and professors from different universities. This paper questionnaire is addressed to consumers of industrial non-alcoholic beverages. The number of questions is thirty-nine (39). These questions are constructed using the different variables identified by the literature review and, the exploratory qualitative research. The questionnaire is divided into two parts: a first part which measures the religious practices which corresponds to the implication in religious activities; a second part which measures the ‘consumption behavior’ of respondents. Items are measured on an even four (4) point Likert scale ranging from “strongly disagree” to “strongly agree”. The four (4) point Likert scale is chosen not only to avoid neutral responses and to collect excellent responses, but also to allow respondents to save time because most of the respondents are always in a hurry. A scale of more than four (4) items could embarrass respondents who feel they do not have enough time to answer the questions. Beyond five items, the proposed modalities no longer make sense. Next, the various items on the scale for measuring “religious practices” (such as the implication in religious activities) and “consumption behavior” come from the qualitative research previously carried out.

3.3. Research Procedure

This section recalls the sampling strategy of the quantitative research. This is to show how the participants of the quantitative research are approached, how the questionnaire is conducted, and how the data is recorded. First of all, the sampling strategy to locate the participants consists in identifying places of beverage consumption businesses (restaurants, snack bars and some drinking spots named in French ‘maquis’) which are frequented by consumers of industrial beverages and asking them to complete the questionnaire at their own time and return it to the researcher. Most of the respondents have filled out the questionnaire on spot, other respondents who did not have time took their questionnaire and filled it out later and returned it afterwards. It is a question of identifying other respondents during various ceremonies such as religious special feats (Christmas, Easter, Pentecost, Ascension), religious baptism ceremonies, religious wedding ceremonies, birthdays, school and university events where some respondents who are consumers of industrial non-alcoholic beverages completed the questionnaire on paper. Moreover, the sampling strategy for the quantitative research is a random sampling technique due to lack of time and lack or insufficient resources. The paper questionnaire is pre-tested with consumers of industrial non-alcoholic beverages. This first test is carried out on a sample of 50 respondents. The results of the pre-test are used to write a final version of the questionnaire. The designed questionnaire is administered again to the various consumers of industrial non-alcoholic beverages. This sample is a subset of the studied population. To define the sample size n, the following formula is used: \( n = \frac{p(1-p)}{e^2} \) with p representing the observed percentage and the maximum error e (Ganassali, 2009). If \( e = 0.06 \) and \( p = 50\% \), then \( n = \frac{0.5 \times (1 - 0.5)}{0.06^2 / 1.96^2} = 267 \). The number of people to be interviewed for a maximum error of 6%, is \( n = 267 \) people. A sample of 267 people is sufficient for an estimated error of 6 points. The total number of research respondents is 268, which is broadly representative and meaningful. Conferring to the national statistics, the total population is 14,017,262 inhabitants (National Institute of Statistics and Demography (INSD), 2010). Out of this, Christians represent 23.2% constituting 3,249,390 inhabitants. Ouagadougou has a total population of 1,915,102 inhabitants. Applying the 23.2% to the population in the capital city, it is estimated that 444,304 Christians are in Ouagadougou. According to Nassè (2018) it is estimated that 91.67% of the Christians drink non-alcoholic beverages. The final sampling frame therefore is calculated as: \( 91.67/100 \times 444,304 = 407,293 \) Christians. From this, the quantitative sample size \( (n = 267) \) people is drawn for the research.

3.4. Context

The research is carried out in Burkina Faso, a country located in the heart of West Africa. The choice of the city of Ouagadougou to conduct this research is justified by the fact that not only it is the capital, but also because of its economic activity and its cultural diversity. In addition, Ouagadougou alone concentrates a large part of the total population. Also, its geographical positioning as a crossroads city, with a good representation of the different ethnic groups. The presence of many restaurants and points of sales of beverages demonstrates that the number of consumers is very high. The research is being conducted for more than two (2) years.

3.5. Participants

First, the age of the participants varies from 10 to 65 and above. Second, the gender of the participants includes women and men who are Christians. Third, Table 4 presents the religious affiliation of the respondents of the quantitative research. In addition, Table 5 shows the age of the respondents of the quantitative research. Furthermore, Table 6 indicates the profession status of the respondents of the quantitative research. Finally, Table 7 indicates the education level of the respondents of the quantitative research (see appendices).
3.6. Analysis of Data

Quantitative data after field collection is computed and processed using the three types of software respectively, sphinx plus²-V5, sphinx IQ, and Sphinx IQ⁵. The choice of these three (3) different types of software can be explained by the fact that their use is easy, and by the fact that they are suitable for research in the African context. Another reason is that it is used in the research laboratory. In addition, sphinx plus²-V5 allows easier import and export of data files and better presentation of flat sorts. Then, the Sphinx IQ software gives rapid elaboration and impressive data entry, and an improved presentation of cross sorting in tables. The Sphinx IQ⁵ enables better multivariate analysis of data.

3.7. Ethical Implications

For Creswell (2009) ethical implications relate to values such as respect for respondents and respect for the context or the research environment. Ethical values are observed, given the sensitivity of the research topic and the socio-political situation of the country. Thus, ethical considerations include the respect for confidentiality of collected data and respect for the anonymity of the various respondents as well as strict respect for their privacy. Respondents are asked not to mention their names when filling out the questionnaire. Their answers are kept confidential. Indeed, this has a positive effect such as respondents’ motivation and devotion to complete the questionnaire with more comfort, and it has motivated some respondents to invite other consumers they know to complete the questionnaire (snowballing effect).

3.8. Units of Analysis

The unit of analysis in this research is the experienced consumer of industrial beverages who is a Christian.

3.9. Generation of Items and Validation of Collection Tools

To generate and validate data collection tools, it is essential to ensure their reliability, and the purification of the scale of measure.

3.10. Reliability and Purification of the Multi-Item Scale of Measure

For Carrino, Poujol, and Bertrandias (2010) reliability is defined as follows: "Reliability or conformity is the ability of an instrument to consistently measure the construct it is meant to measure."

According to Carrino et al. (2010) the reliability of an instrument refers to this instrument being able to measure constantly the construct to be measured. The “test” and “retest” method is one of the best reliable measurement procedures (Carrino et al., 2010). Data is measured on a regular basis with the same instruments and the same results are obtained after testing and retesting the data on the same population. Data collection in the field, and data analysis are done by the researcher himself in order to ensure their reliability. The reliability of the approach is therefore established in order to ensure that if another researcher replicates this process that s/he typically achieves the same results. To test the reliability of the measurement and develop the measuring instrument, the data is measured on a regular basis with the same instruments to see if the same results are obtained from the different studies carried out by the researcher. It is also verified with Cronbach's alpha that the various items relating to religious practices (and respectively consumption behavior towards non-alcoholic industrial beverages) are sufficiently homogeneous and correlated with one another.

Thus, for the variable 'Implication in religious activities' there are three items and for the variable 'Consumption behavior' there are nine (9) items. It is also a question of measuring Cronbach's alpha of these different items and ensuring that these items are consistent and homogeneous with each other.

First, the analysis has consisted in bringing out the Cronbach's alpha value between the different items of the variable 'Implication in religious activities'. Thus, Table 1 shows that for this variable there are seven (7) items with an Alpha of Cronbach of 0.73 in the analysis before purification of the scale. Then, to increase the Alpha of Cronbach value the items with low value are deleted and, the analysis is carried on three (3) items. For the variable 'Implication in religious activities', the Cronbach's alpha value for the different items is 0.83. The high value of alpha indicates that the items are not independent but strongly correlated to each other. The principal component analysis (PCA) provides three (3) factors F1, F2 and F3 which explain 96.44 % of the total variance.

Second, the analysis has consisted in bringing out Cronbach's Alpha value of the different items of the variable 'Consumption behavior'. Thus, Table 1 shows that for this variable the number of items is twelve (12) with an Alpha of Cronbach of 0.68 in the analysis before purification of the scale. To increase the Alpha of Cronbach value the items with low value are deleted and, the analysis is carried on nine (9) items. After deletion of the items with lower values, the Cronbach's alpha value for the nine (9) items is 0.82. This high value of Alpha indicates that the items are not independent, but strongly correlated to each other. The principal component analysis (PCA) provides three (3) factors F1, F2 and F3 which explain 76.89 % of the total variance. The different values of the Alpha Cronbach, which are obtained, are in acceptable proportions in view of the exploratory nature of this research.
Table 1. Scale of measurement purification.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Before purification of the scale</th>
<th>After purification of the scale</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Items number</td>
<td>Alpha of Cronbach</td>
</tr>
<tr>
<td>Implication in religious activities</td>
<td>7 items</td>
<td>0.73</td>
</tr>
<tr>
<td>Consumption behavior</td>
<td>12 items</td>
<td>0.68</td>
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3.11. Validation
The measuring tools should allow the researcher to better evaluate the phenomenon under investigation Carrino et al. (2010). Validity is the fact that the research answers the questions and the research objectives (White, 2002) and it is ensured that the chosen measurement instruments allow measuring what one wants to measure in this research.

3.12. Internal Validity
To ensure the quality of the questions and answers, the quality of the number of collections, two methods are used to validate the information collection tools. A pre-test is carried out with the respondents to ensure that the various questions are well understood and that the respondents did not have trouble in giving their answers. To reduce the accessory sources of errors, the questionnaire of the quantitative research is revised and readjusted following observations notified by the supervisor and other teachers. In this process, it is therefore necessary to ensure that the composition of the sample and the method of selection of the sample is good and representative; and that the sample does not contain any particular bias.

3.13. External Validity
To increase the precision of the results, the research carried out is intended to be consistent with regard to the representativeness of the sample; the precision of the estimate (sample size), which, therefore, makes it possible to generalize the results. The answers are consistent with the results, so this characteristic can be outsourced to other sectors.

4. Results
4.1. Descriptive Statistics
The overall sample is 268 respondents with a response rate of 100% and therefore the total number of non-responses is 0. The non-return rate is 1.83%, which corresponds to five (5) questionnaires that are not returned. The different respondents are Christians, and to different denominations. Only respondents from the main denominations responded to the research. The notice is that very minority denominations in the city of Ouagadougou have not participated concretely to this research. The total sample is composed of Christians for a percentage of 100% (see appendices).

4.2. Model Equation
The results of the research help to bring out the following model equation:

\[ \text{Implication in religious activities} = -0.48 + 0.12 \times \text{Purchase} + 0.19 \times \text{Taste} - 0.15 \times \text{Advertising} + 0.67 \times \text{Price} + 0.12 \times \text{Lower prices}. \]

This equation shows that the most influential parameters are five (5). The data relating to the significance of the parameters are the purchase, the taste, the advertising of industrial non-alcoholic beverages, the price, and specifically the lower prices, of industrial non-alcoholic beverages. These five (5) parameters explain 66.87% of the variance of the variable to be explained (i.e. implication in religious activities).

4.3. Model Quality Indicator
Figure 2 presents the model that accounts for 66.87% of the variance of the variable to be explained. The Multiple correlation coefficient: \( R = 0.82 \); the P-value of R: \( p (R) = < 0.01 \); the Fisher coefficient: \( F = 105.75 \); and the P-Value of F: \( p (F) = < 0.01 \).
4.4. Variables Crossings

- Correlations between "Implication in religious activities" and "Consumption behavior".

The research consists of testing the following first hypothesis:

**Null hypothesis - H₀**: The implication in religious activities does not influence consumption behavior.

**Alternative hypothesis - H₁**: The implication in religious activities influences consumption behavior.

If the values of p and \( \chi^2 \) are significant, the correlation between "implication in religious activities" and "Consumption behavior" is significant, then the null hypothesis H₀ will be rejected and the alternative hypothesis H₁ will be confirmed.

Table 2 shows that the crossing of "Implication in religious activities" with "Consumption behavior", shows that the value of p and the value of \( \chi^2 \) are quite distinctive. Then, the result of this crossing shows that the relationship between the variable "Implication in religious activities" and the variable "Consumption behavior" is very significant with \( p < 0.01; \text{dof} = 200 \) and \( \chi^2 = 2300.91 \). Thus, the null hypothesis is rejected and it is concluded that there is a relationship between the variable "Implication in religious activities" and the variable "Consumption behavior". In a word, hypothesis 1 is confirmed.

<table>
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<tr>
<th>Variables</th>
<th>Results</th>
<th>Conclusion</th>
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<tr>
<td>&quot;Implication in religious activities&quot; and Consumption behavior&quot;</td>
<td>( p &lt; 0.01; \text{dof} = 200 ) and ( \chi^2 = 2300.91 ).</td>
<td>There is a strong association.</td>
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Note: * \( p < 0.05 \).


- Correlations between "Age", "Implication in religious activities" and "Consumption behavior"

The second hypothesis to be tested is as follows:

**Null hypothesis - H₂**: Age is not a moderating variable of the relationship "Implication in religious activities" and "Consumption behavior".

**Alternative hypothesis - H₃**: Age is a moderating variable of the relationship "Implication in religious activities" and "Consumption behavior".

If the values of p and \( \chi^2 \) are significant, the correlation between the variable "Age" and the variable "Implication in religious activities" is significant and then, the correlation between the variable "Age" and the variable "Consumption behavior" is significant then the null hypothesis H₀ will be rejected and the alternative hypothesis H₂ will be confirmed.

The investigation has consisted in determining if there is a relationship between "Implication in religious activities" and "Age". The results on Table 3 indicate that the relationship between "Implication in religious activities" and "Age" is very significant with \( p = 0.00; \text{dof} = 20 \) and \( \chi^2 = 365.98 \). Moreover, the investigation has consisted in discovering if there is a relationship between "Consumption behavior" and "Age". In addition, the result shows that the relationship between "Consumption behavior" and "Age" is very significant with \( p = 0.00; \text{dof} = 40 \) and \( \chi^2 = 375.98 \). These results make it possible to reject the null hypothesis and to conclude that there is a relationship between "Implication in religious activities", "Consumption behavior" and "Age". One observation is that the smaller the respondent's age, the more s/he tends not to consume...
industrial alcoholic beverages but rather tends to consume industrial non-alcoholic beverages. This is explained by the fact that the youth often do not have enough financial power to purchase industrial alcoholic beverages because Burkina Faso being a poor country, poverty is much felt among the youth who are unemployed. Burkinabé law also prohibits access to alcoholic beverages places, for very young people. Then, it emerges that "Age" has a moderating influence on the "Implication in religious activities". One observation is that the lower the age of the respondents, the more they tend not to devote much time in religious activities. To conclude hypothesis 2 is confirmed.

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<tbody>
<tr>
<td>&quot;Implication in religious activities&quot; and &quot;Age&quot;</td>
<td>p = 0.00; dof = 20 and ( \chi^2 = 365.98 )</td>
<td>There is a strong association</td>
</tr>
<tr>
<td>&quot;Consumption behavior&quot; and &quot;Age&quot;</td>
<td>( p = 0.00; \text{dof} = 40 ) and ( \chi^2 = 375.98 )</td>
<td>There is a strong association</td>
</tr>
</tbody>
</table>

**5. Discussion of the Results**

**5.1. Discussion of the Results with Reference to Hypothesis 1**

Recent studies on the topic of religious beliefs have shown their influences on consumption behavior (Agarwala et al., 2019; Diop, 2012; Nassè et al., 2019; Nurbasari, 2015). In other contexts, it has been has found that religious beliefs increase or decrease the consumption of products (Campanella, 2016). This research rather portrays religious practices' influence on consumption behavior with very different consumer choice factors and purchasing decision factors such as taste, advertising, price, packaging, and product content. It has been identified that the implication in religious activities brings the Christian consumers to conform to a certain consumption behavior, notably by selecting the beverages that meet their religious recommendations. This specific result relating to the first hypothesis confirms the expectations of the research and it has been found that the "Implication in religious activities " has an effect on consumption behavior.

Previous findings on consumption and culture show that it is the degree of belief that influences consumption behavior (Al-Hyari et al., 2012; Patel, 2010). Most Asian authors like Patel (2010); Al-Hyari et al. (2012) have worked on Islam and other religions such as Islam and Buddhism while this study focuses on the Christian religion. Likewise, in the Western context, Amanikwa et al. (2012) show on the other hand that it is the participation in mass or in Sunday worship influences consumption behavior. Moreover, studies carried out by other authors in the Western context show that it is rather the participation in Mass, the feeling of the presence of God and the attachment to religious belief or the degree of belief that influence the consumption behavior (Amanikwa et al., 2012; Forghani, Kazemi, & Ranjbarian, 2019). For Campanella (2016) it is rather religious principles that influence consumer behavior such as the duty to do what is correct in religion. Furthermore, the African context, for Diop (2012) it is rather Islamic religious values that particularly influence consumption behavior. In short, the contexts are different, and the present results are different from previous findings.

**5.2. Discussion of the Results with Reference to Hypothesis 2**

Several authors in their research have already mentioned the influence of the socio-demographic variable such as age on consumption behavior. First, in the Western context, for Sheth (1983) the socio-demographic characteristics of the consumer are similar to personal traits such as race, gender, age, religion. In the Asian context, the socio-demographic characteristics of the consumer are perceived in the research of Mokhlis (2010) in Malaysia. For Mokhlis (2010) the consumer’s socio-demographic variables can be denoted as his/her age, gender, and income. In the African context, in Senegal, Diop (2004) by describing the housewife in all her specific features, highlighted elements such as age, level of education, activity, marital status, the marital regime. The present research found that there is a similarity and a difference in terms of socio-demographic variables. The similarity is that the age variable is found to be a common element with the results of previous research (Diop, 2004; Mokhlis, 2010; Sheth, 1983). However, the difference is that the present research shows a new finding: age is a moderating variable of the relationship between implication to religious activities, and consumption behavior, where factors such as purchase, taste, advertising, price, and specifically lower prices have a significant effects on consumer choices and consumer purchasing decisions making.

**6. Conclusion and Implications**

Taking into account religious practices and their weight on consumption behavior and in the management process of companies could be the response to the basic needs and expectations of a number of consumers, as well as, key solutions to eradicate poverty, crises, social conflicts between actors in the sector and the society. It fosters sustainable development, and reduces the perceived distributive injustice in businesses (Nasse, 2016).
6.1. Implications of the Research

The conceptual implications are grounded on the enrichment of concepts such as culture, religion, religious practice, and consumer behavior. These concepts are examined, analyzed, and enriched more precisely in the light of this new context for the specific needs of the research. Somewhat a conciliatory definition of culture is proposed by defining culture as being the set of lifestyles, beliefs, and habits which are inherited, either created, or imported by a group of individuals or by a community and which govern their daily life. Then, religion is defined as being a set of beliefs, dogmas and rituals, which make it possible to establish a sacred bond between human beings and God. In addition, religious practice can be viewed as the commitment and attachment of a given individual to his or her religious or Christian faith, and this can be expressed either through his/her attachment to prayer or religious activities, or either by the conformity of his/her life to religious precepts or his/her devotion in undertaking good actions. Many Christians integrate religious precepts as full values into their own practical lives. In this particular context, the most significant values seem to be the implication in the religious activities of the Church. Consumption behavior is understood in this research as the way individuals or consumers examine, evaluate, select products and services and then make choices in terms of purchases or consumption, which are linked, to their sensitivities, their expectations or their satisfactions.

For the methodological implications, this research highlights a deployment of tools that allow a categorization of certain consumers with different socio-cultural realities. Then, for the theoretical implications, this research shows that religious practices strongly and positively influence the consumption behavior in the light of the previous theories. The observation is that despite the differences in contexts, the results are the same. However, this research provides some additional findings by consolidating the existing literature and by demonstrating that the criteria for consumer choice in the context are different from other criteria found in other contexts. It confirms the point of view of other authors who stress that depending on the context, the results may not be the same (Diop, 2004; Usinion, 2000). This exploratory research shows the relationship between religious practices namely the implications in religious activities and consumer behavior in the West African geography with some individual factors and some social group factors that have some effects on consumer choices and consumer purchasing decisions. It shows beyond commitment, how conspicuous drinking behavior, syncretic consumption behavior, taste, advertising, prices, proximity to sales point, also impact the live of a sacred minority of consumers and then, changes their choices and purchasing decisions in the beverage sector.

Regarding the managerial implications, it is essential that managers readjust their marketing strategies by taking into account culture as a criterion of consumer segmentation. It is also vital for managers to consider these marketing factors on consumption: conspicuous and syncretic drinking, taste, price, advertising, sales point (proximity). This research also suggests that that beverages’ manufacturing processes should be more inclusive by associating religious consumers or by considering that segment during in their recruitment procedures; it entails that companies should diversify their recruitments methods (Carbonell, Nassé, Briceno, & Ouédraogo, 2020) for a better performance.

In view of the findings, one can say that religious practice strongly influences consumption behavior. One of the observations is that during important events in worship places (Churches, Cathedrals, Temples), for example, consumption on the spot is much more oriented on non-alcoholic industrial beverages rather than industrial alcoholic beverages. Thus, religious practice is a factor that companies operating in the beverage sector should not ignore. It is essential to take into account the concept of religious practice in the management of beverages sector to meet a certain number of expectations and needs of some consumers. To support this point, a number of researchers show that when a consumer is satisfied, then s/he is loyal to the products (Nasse, 2016). On the other hand, an unsatisfied consumer may disrupt with the consumption of the products (Nasse, 2016; Nassé, 2019). First, this research brings out a new research model, which may inspire managers in the beverages sector for new marketing strategies of this key sector of the economy. Also, according to the results, companies producing and selling industrial beverages are invited to review their business strategies (Anderson, Sweeney, Williams, Camm, & Cochran, 2015). The diversification of this sector while increasing products quality and high production can solve the need for non-alcoholic beverages often expressed by religious consumers during Christmas, Easter, Pentecost, Ascension, wedding, birthday and baptismal ceremonies. Some respondents make relevant remarks on the frequent disruption of industrial non-alcoholic beverages at the distribution companies level that offer nothing other than alcoholic beverages to consumers (which sometimes disappoints or frustrates consumers). Previous research acknowledges that some religious consumers like Christians of different denominations do not support the fact of not being able to consume what is prescribed by their religion (Fam et al., 2004). Likewise, companies in this sector must have a strong reactivity (Nasse, 2016) or strategic planning to solve the problems related to the temporary shortage of industrial non-alcoholic beverages for consumers by minimizing the supply time, or the distance. Then, pricing being a very important factor for consumers (Nasse, 2016) it is vital to revise downwards the various prices on industrial non-alcoholic beverages because most of the consumers have low purchasing power. These beverages are nutritional supplements (Sow, 2005) for consumers and it is judicious that they can be accessible to the great majority. In addition, it is essential that the expectations and needs of this segment of consumers in the marketing of industrial beverages be considered, for loyalty purposes (Nasse, 2016; Nassé, 2022). One
thing is that the continuous lack of satisfaction of these consumers generates frustration, which leads them to be disloyal (Nasse, 2016). Furthermore, managers and entrepreneurs can avoid placing drinking spots near worship places such as Churches, Cathedrals or Temples, to avoid social conflicts. The negligence of decision taking towards the expectations of religious consumers can be considered as a social injustice or a social inequity. Previous research clearly shows that in certain contexts the failure to take into account a certain number of the expectations of religious consumers lead consumers to boycotting (Al-Hyari et al., 2012). Also, it is accepted by all Christians that events of a scientific or administrative nature which bring them together must be held with a consumption culture focused on non-alcoholic beverages. Thus, Christian consumption choices and purchasing behavior are focused on non-alcoholic beverages.

6.2. Perspectives

This research is conducted in the unique environment of Burkina Faso and in the beverages sector. It is interesting to extend it to other research areas in order to compare the results.

References


### Appendices

<table>
<thead>
<tr>
<th>Religious denomination</th>
<th>Respondents’ number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apostolic</td>
<td>45</td>
<td>16.8%</td>
</tr>
<tr>
<td>Assembly of God</td>
<td>23</td>
<td>8.6%</td>
</tr>
<tr>
<td>Baptist</td>
<td>68</td>
<td>25.4%</td>
</tr>
<tr>
<td>Roman Catholic</td>
<td>73</td>
<td>27.2%</td>
</tr>
<tr>
<td>International Center for Evangelization</td>
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<td>5.6%</td>
</tr>
<tr>
<td>Mennonite</td>
<td>44</td>
<td>16.4%</td>
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<tr>
<td>Total</td>
<td>268</td>
<td>100%</td>
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</tbody>
</table>


<table>
<thead>
<tr>
<th>Respondents’ age</th>
<th>Respondents’ number</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>10–25</td>
<td>136</td>
<td>50.7%</td>
</tr>
<tr>
<td>26–35</td>
<td>66</td>
<td>24.6%</td>
</tr>
<tr>
<td>36–45</td>
<td>64</td>
<td>23.88%</td>
</tr>
<tr>
<td>46 and above</td>
<td>2</td>
<td>0.74%</td>
</tr>
<tr>
<td>Total</td>
<td>268</td>
<td>100%</td>
</tr>
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Table 6. Respondents’ profession (Quantitative research).

<table>
<thead>
<tr>
<th>Respondents' profession</th>
<th>Respondents' number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployed</td>
<td>122</td>
<td>45.27%</td>
</tr>
<tr>
<td>Private sector employees</td>
<td>103</td>
<td>38.4%</td>
</tr>
<tr>
<td>Public sector employees</td>
<td>43</td>
<td>16.15%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>268</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>


Table 7. Respondents’ education level (Quantitative research).

<table>
<thead>
<tr>
<th>Respondents' education level</th>
<th>Respondents' number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>University level</td>
<td>224</td>
<td>83.58%</td>
</tr>
<tr>
<td>Secondary school level</td>
<td>44</td>
<td>16.42%</td>
</tr>
<tr>
<td>Primary school level</td>
<td>0</td>
<td>00.00%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>268</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>


Table 8. Religious affiliation of the respondents (Qualitative research).

<table>
<thead>
<tr>
<th>Religious denomination</th>
<th>Respondents' number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apostolic</td>
<td>01</td>
<td>8.33%</td>
</tr>
<tr>
<td>Assembly of god</td>
<td>01</td>
<td>8.33%</td>
</tr>
<tr>
<td>Baptist</td>
<td>05</td>
<td>41.66%</td>
</tr>
<tr>
<td>Roman Catholic</td>
<td>04</td>
<td>33.33%</td>
</tr>
<tr>
<td>International Center for</td>
<td>01</td>
<td>8.33%</td>
</tr>
<tr>
<td>Evangelization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mennonite</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>


Table 9. Respondents’ age (Qualitative research).

<table>
<thead>
<tr>
<th>Respondents’ age range</th>
<th>Respondents’ number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-25</td>
<td>03</td>
<td>25%</td>
</tr>
<tr>
<td>26-35</td>
<td>05</td>
<td>41.66%</td>
</tr>
<tr>
<td>36-45</td>
<td>01</td>
<td>08.33%</td>
</tr>
<tr>
<td>46-and above</td>
<td>03</td>
<td>25%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>