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Religiosity and consumer behavior in developing countries: An exploratory study on Muslims in the context of Burkina Faso

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The interest of researchers on religiosity and consumer behavior is explained by the fact that religion has an influence, not only on the social behavior of individuals, but also on their consumption behavior (Fam et al., 2004; Nasse, 2006; Mansori, 2012; Diop, 2012). Most of the studies on the topic are from Western and Asian countries. Little research on the subject has been conducted in Africa and particularly in Burkina Faso. Therefore, this study aims to explore the concepts of religiosity and consumer behavior in Burkina Faso in order to consider the role of culture in management and marketing products such as "halal" products. Burkina Faso is a country where religion plays an important role while a definite portion of believers contribute to increase the consumption of industrial alcoholic drinks, and ignorance in the sector of marketing seems also to be a barrier that slows down the production and the consumption of industrial non-alcoholic drinks. The approach is a mixed one based both on a qualitative survey and a quantitative survey. The results show that Muslims religiosity affects consumer behavior in the context of Burkina Faso.

Key words: Religiosity, consumer behavior, non-alcoholic drinks, consumption, marketing.

INTRODUCTION

First, the practice of marketing in the context of Burkina Faso is recent; then most of the research topics on marketing are directed to other sectors because making a research on religious beliefs and consumption seems to be a taboo. In addition, there are no official statistics on the consumption and marketing of industrial drinks. Thus, conducting a research on the concepts of religiosity and

consumer behavior in the particular context of Burkina Faso is justified by the use of these concepts in the management and in the marketing of both the Western and the Asian contexts; and the need to verify the results of Western research and Asian research in the African context in general, and in Burkina context in particular. Management and marketing in the West and in Asia have

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brought results; researchers have tested and verified the different marketing theories about culture and consumer behavior in order to be reassured that cultural consumption patterns are not the same (Diop, 2004; Usinier, 1999). It also provides managerial solutions to companies, in order to adapt industrial drinks to consumption, and to the needs and to the expectations of consumers. Therefore, this research is an exploratory study which topic is: The influence of religiosity on consumer behavior towards industrial non-alcoholic drinks in Burkina Faso.

In Burkina Faso, one can observe an increasing rate of industrial drinks consumption. Indeed, industrial drinks are among the events of daily life and customs. In Burkina context, industrial drinks have a food function (Sow, 2005), a religious function (Dumbili, 2013), and a medical function. Thus, one can find the industrial drinks during some events such as funeral rites, traditional wedding ceremonies, religious wedding ceremonies, modern wedding ceremonies, religious rituals and worship ceremonies, religious baptismal, during the feast of Ramadan, during the feast of Tabaski. For this reason, some authors mention that the purchases of products such as industrial drinks prevail during religious festivals (Porter, 2013: 31).

For Sow (2005: 6), the industrial drinks consumption rate is increasing and tripled from 1993 to 2002 in Burkina Faso for both industrial non-alcoholic drinks and industrial alcoholic drinks. However, Burkina Faso is a country where religion plays an important role (Bazié, 2011: 16) and it may influence the behavior of individuals in consumption. In West Africa, in general, and Burkina Faso in particular there are Animists, Christians and Muslims (Nasse, 2012: 31).

Today, according to the national statistics, Burkina Faso is composed of 60.5% of Muslims, 23.2% of Christians (19% Catholics and 4.2% Protestants), 15.3% of Animists, 0.6% of other religions and 0.4% without religion (National Institute of Statistics and Demography, 2006). Among Muslims there are for instance Shiites, Sunnis, Lahilaa. In addition, the industrial drinks and particularly the industrial non-alcoholic drinks are food supplements (Sow, 2005) which are very important for the Burkinabe population, as they help to curb vitamin deficiencies, to combat deficiency in minerals, to combat hunger, and to relieve thirst. In Burkina Faso, an observation is that religious beliefs contribute to strongly encourage the consumption of industrial non-alcoholic drinks while companies in the industrial drinks sector have some difficulties to adapt industrial non-alcoholic drinks to the real expectations and needs of consumers. Religiosity is one of the factors that strongly contribute to the consumption of industrial non-alcoholic drinks, and this fact may lead one to the following question: What is the perception of religious consumers on the consumption of industrial non-alcoholic drinks as compared to the consumption of industrial alcoholic

drinks?

Religious beliefs appear to be some catalysts that facilitate the business and the consumption of industrial non-alcoholic drinks. However, marketing ignorance in the industrial drinks sector seems to be a barrier to the consumption of industrial non-alcoholic drinks in the particular context of Burkina Faso. The observation of the Burkinabe context could lead a researcher to wonder why some believers are increasingly oriented towards industrial alcoholic drinks consumption rather than towards industrial non-alcoholic drinks consumption.

Thus, the research question in this study is: Why Muslims, who should be less tolerant towards the industrial alcoholic drinks consumption by drinking industrial non-alcoholic drinks, find themselves rather at the base of the increase of the consumption of industrial alcoholic drinks?

The research question is structured on the following fundamental questions:

1. What are the dominant religious beliefs in the context of Burkina Faso?
2. How can we measure religiosity in the context of Burkina Faso?
3. What is the relationship between the degree of religious beliefs and consumers behavior towards industrial non-alcoholic drinks in the religious groups of Burkina Faso?
4. Finally, can religiosity be a valuable cultural variable in the consumption of industrial non-alcoholic drinks in Burkina Faso?

This study begins with an introduction focused on a review of the literature on the concept of religiosity and the concept of consumer behavior. For further, the link between religiosity and consumer behavior is underlined, and then the different theories which are concerned are brought out. Finally, the materials and methods, the results and the discussion of the results, the conclusion and the references are presented.

LITERATURE REVIEW

In this research, it is a concern to clearly define the concept of religiosity, and the concept of consumer behavior, and also to present the various previous research conducted, and finally to show that the research problem mainly comes within the field of culture and consumption, as well as marketing. A more thorough review of the literature brings out what has been discussed by different authors. The research topic is as follows: The influence of religiosity on consumer behavior towards the industrial non-alcoholic drinks in the context of Burkina Faso. This topic thus connects different concepts namely religiosity and consumer behavior. The issue here is to firstly define the various concepts and

secondly to recall the various theories of the study.

The concept of religiosity

The concept of religiosity has been defined by several authors. Mokhlis (2006: 64) defines religion as the degree to which certain values and beliefs to certain ideals are held, practiced and become as a mark of identity. According to Patel (2010), the concept of religiosity is defined as the degree to which an individual is attached to a particular religious group. The definition that Delener (1990) gives to the concept of religiosity joins that of Patel (2010). Delener defines the concept of religiosity as the degree of commitment of an individual to a particular religious community. Bonewell (2008) defines religiosity following the same perspective as that of Allport and Ross (1967: 141) by showing that religiosity is a social term that is used to mention the fact for an individual to be religious; this means that religiosity is defined as the degree of belief of an individual or the degree of commitment of an individual, or the degree of faith or the belief system of an individual; however, unlike other authors, Bonewell (2008) goes further in their definitions by distinguishing two types of religiosity that make up the concept of religiosity: the extrinsic and the intrinsic religiosity; according to these authors, extrinsic religiosity can be defined as the act of referring to the use of religion or the use of religious faith to provide comfort or to improve one's status, whereas intrinsic religiosity is to integrate religion or religious faith in one's own life and to make it a religious value.

However, these definitions of the concept of religiosity may raise many critics given the fact they are defined in a Western context or in an Asian context. This study is exploratory, and it is interesting to find out a definition of religiosity in the context of Burkina Faso. In the context of Burkina Faso some authors have already discussed in a succinct manner the concept of religiosity in their research but not in a concise manner. First, Ouédraogo (2007) shows that people of a certain degree of belief have an influence in resolving some conflicts between employers and employees in the context of Burkina Faso. Thus, the description of Ouédraogo shows that religiosity is related to the degree of belief of a personality which in some cases can be perceived in a community; the person is then useful to the group through his or her influential leadership character. However, this brief description of a real situation let us perceive that the concept of religiosity is confined in a company's human resources management context, the famous company "Oumarou Kanazoé" in Burkina Faso. Moreover, Nasse (2006) shows how Christianity as a religion, brought by missionaries affects Kasim culture through the early believers. Here, religiosity is reduced to the notion of religious affiliation and it brings an ethnic group to borrow words and also to import trade items, into the group.

Later on, Nasse (2012) underlines the devotion and the commitment of missionaries to the fulfillment of religious activities in the context of Burkina Faso. The mere mention of the concept of religiosity by Nasse is limited to a Christian dimension and does not extend to other religions such as Islam and animism. Then, Kini (2012) also underlines the concept of religiosity by showing that company management success in the Burkinabe context is influenced by the foundation of faith in God. Notwithstanding, the definition of the concept of religiosity by Kini is limited by the fact that it comes from a much more evangelical vision. In the context of Burkina Faso, the concept of religiosity can take another meaning, taking into account a number of daily realities observed. In this context, therefore, the concept of religiosity can be defined as the degree of commitment and the degree of dedication of a given individual to God, the supreme being, expressed either by the commitment to religious activities or by the compliance of one life to religious precepts or the devotion to take on some good actions.

Once the concept of religiosity is defined, it is essential to define consumer behavior concept.

The concept of consumer behavior

The marketing concept in consumer behavior is defined by several authors. Western authors like Esso and Dibb (2004) and Bergadaa and Faure (1995) define consumer behavior as the how and the why individuals consume particular goods or services. The approach of the concept of consumer behavior by Bergadaa and Faure (1995) and Esso and Dibb (2004) shows that it has its sources in studies that are conducted in the context of Western consumption and why it cannot be generalized.

For Mokhlis (2008), the concept of consumer behavior is similar to that of the consumer's consumption choices. According to Mokhlis, consumers make decisions along the lines of their choices to consume or not to consume a certain product. The approach of the concept of consumer behavior by Mokhlis is connected to that of religion; to the point that it is impossible to see that other factors may influence consumers' consumption choices. Moreover, the approach of this concept by Mokhlis is much more located in an Asian context. According to Diop (2004), consumer behavior corresponds to a given consumer's attitude adopted by individuals who consume a given product; and this consumer attitude is specific to each sociocultural context. This approach to consumer behavior concept has some limits because it was made in a Senegalese context and oriented only on the Muslim consumer. However, the approach of the concept of consumer behavior some years later by Diop (2012) is much more relevant (even if the context is still that of Senegal) in that the author shows that consumer behavior includes these values that significantly influence the shopping and consumption choices of individuals,

and these values are knowledge, beliefs, manners and customs. In the context of Burkina Faso, the concept of consumer behavior can be approached as how individuals decide, examine, evaluate products and services and make purchases in terms of choice, consumption, quality, taste, advertising or price.

A review of previous literature in this research can contribute to make more understandable this topic that covers culture and consumption in the context of Burkina Faso.

The following are the different theories of this research.

The individualistic theory of consumer behavior

Luna and Gupta (2001), Shavitt et al. (2008), De Mooij and Hofstede (2011), Nayeem (2012), Frank, Enkawa, and Schvaneveldt (2015) emphasize the individualistic approach of consumer behavior by showing that consumer behavior may be affected by his or her personality and his or her character as well as his or her attitude. They show that consumer behavior is driven by a behavior that is usually a link to the particular consumer's individual experience.

The collectivist theory of consumer behavior

In contrast to the individualistic theory of consumer behavior, Luna and Gupta (2001), De Mooij (2003), Arnould and Thompson (2005), Banyte and Matulioniene (2005), Salciuviene et al. (2005), Soares et al. (2007), Claussen et al. (2008), and Nayeem (2012) support the collectivist approach to consumer behavior. The collectivist approach to consumer behavior states that consumer behavior may be affected by the society or the group that the individual shares a number of values, or the attitude of the community.

The culturalist theory of consumer behavior

However, Fam et al. (2002), De Mooij (2003), Jung and Kau (2004), Ezzo and Dibb (2004), Arnould and Thompson (2005), Banyte and Matulioniene (2005), Mokhlis (2006), Claussen et al. (2008), Mokhlis (2009), Mokhlis (2010), Alam et al. (2011), Al-Hyari et al. (2011), Durmaz et al. (2011), Derakhshide and Rezaie (2012), Nayeem (2012), Benabdallah and Jolibert (2013), Mustafar and Borhan (2013), Ahmad et al. (2015), Baazeem (2015), Cole (2015), Esteban et al. (2015), Nurbasari (2015), and Campanella (2016), support the culturalist approach of consumer behavior. The culturalist perspective of consumer behavior indicates that the behavior of a given consumer is driven by his or her own culture and therefore some cultural consumption dimensions are stated by these authors.

The economic theory of consumer behavior

Finally, Simon (2000), Matthew and Morrison (2003), Ouédraogo (2007), Kitchathorn (2009), Nasse (2012), Shamba and Livian (2014), Van Laethem and Body (2008), and Nasse (2015) briefly express their ideas in the sense of the economic theory of consumer behavior. The economic theory of consumer behavior points out that a given consumer will repurchase some products when these products have the greatest value in terms of quality or when these products give an absolute satisfaction at a reasonable price as compared to their qualities.

The literature review confirms that there is little research on culture and consumption in the West African context (Diop, 2004) and particularly in the context of Burkina Faso. The literature review shows that it is good to consider in the marketing research, the concept of culture in market analysis to better understand consumers and their different behaviors. Understanding consumer differences and similarities in culture can also help companies either to standardize or either to tailorize their marketing strategies to meet the expectations and the needs of consumers. The literature review also reveals that there is no previous research on culture and consumer behavior in the particular context of Burkina Faso; particularly, a research that more precisely correlates religiosity and consumer behavior. The literature review also identifies some variables that could influence the process of decision to purchase and the consumption of industrial non-alcoholic drinks in a context where there are several religious practices.

Moreover, the theories that are fully adopted are the individualistic theory of consumer behavior, the collectivist theory of consumer behavior, the economic theory of consumer behavior and the culturalist theory of consumer behavior because they emphasize the importance of certain variables such as religiosity and consumption, two major aspects of culture. These theories are adopted because they provide a clear explanation of the culturalist behavior, the individualistic behavior, the collectivist behavior of consumers in an environment where religiosity, an important aspect of culture may have an influence on consumer behavior towards industrial non-alcoholic drinks. In the Western context, it has already been shown that religiosity (Delener, 1990; Ezzo and Dibb, 2004; Durmaz et al., 2011; Benabdallah and Jolibert, 2013) influences the behavior of consumers and it is very important to check this also in the specific context of Burkina Faso. However, the economic theory of consumer behavior is only partially adopted because economic factors are very important to consider in a developing country like Burkina Faso where the purchasing power of most consumers is low (Nasse, 2014); but these economic factors alone cannot explain variations in the sales and purchase decisions processes of products concerning consumers,

what means that other factors may well influence consumer behavior. Among these factors there are not only individualistic factors, collectivist factors, but also cultural factors in general, and religious factors in particular.

Link between religiosity and consumer behavior

In the *American context*, authors like Amankwaa et al. (2012) show with a positivist epistemological position and a quantitative approach that religiosity and behaviors of consumers are linked through a study at a University in Georgia in the United States of America. Students who do not consume alcohol or whose level of alcohol consumption is very low have a strong involvement in religious practice. Their study then revealed that religiosity is closely linked to consumer behavior towards industrial drinks. In the *European context*, Benabdallah and Jolibert (2013) on the basis of a constructivist epistemological position and a qualitative study show that the relationship between religiosity and the consumption behavior of Algerian immigrants in France is significant. According to these authors, if the degree of religiosity of the individual is high, the individual will tend to remain faithful to the consumption practices as allowed by his or her religion. Campanella (2016) through a postpositivist epistemological posture and both a qualitative approach and a quantitative approach, demonstrates how religiosity influences the consumption choice of Muslim consumers in Sweden. Campanella finds that 88.7% of Muslims living in Sweden frequently consume "halal products" and for them that need answers a religious principle that is the commitment to do what is right. In the *Asian context*, Mokhlis (2009), through a positivist epistemological position and a quantitative approach examines the influence of religiosity on some aspect of consumer behavior; he discovered that factors such as quality, impulse buying, and the notion of price, from consumers are closely related to the concept of religiosity. Mokhlis therefore finds that religiosity intimately influences consumer behavior. Then, Alam et al. (2011) through a positivist epistemological position and a quantitative approach examines the relationship between religiosity and consumer behavior Muslims in Malaysia and they find that religiosity is a factor that determines the behavior of consumption Muslims. Finally, Al-Hyari et al. (2011) through a constructivist epistemological position and a qualitative approach and a study of consumer behavior in Saudi Arabia, demonstrates that the link between religiosity and consumption behavior of the Saudi Muslims is total, and this is what explains the fact that these consumers are boycotting a certain number of products that are insane for consumption.

In the *African context*, Diop (2012) through an exploratory research and a qualitative approach shows that there is indeed a relationship between religious values of Islam and marketing values as practiced in

Senegal. Diop demonstrates how the belief in the values of the Islamic religion has a particular influence on the behavior of Senegalese consumers. Diop shows that in the African context in general, and in the particular context of Senegal, religiosity influences the behavior of the Muslim consumers.

The results obtained through various observations and the literature review in the sociocultural context of Burkina explains some behaviors related to religiosity. This explains why some Muslims whatever their degree of belief, contribute to increase the number of consumers of industrial alcoholic drinks. In Burkina Faso, Islam is the dominant religion in terms of statistics according to the National Institute of Statistics and Demography (INSD). A first observation is that during the month of Ramadan, there is a critical drop of the consumption of the industrial alcoholic drinks; and after the month of Ramadan there is a rise of the consumption of the industrial alcoholic drinks. Another observation is that the practice of Islam in Burkina is a moderate practice due to the influence of animism in Burkina which does not prohibit the consumption of industrial alcoholic drinks. According to Bazié (2011), alcoholic drinks are used in the traditional animist rituals of Burkina. In addition, the Burkinabe context is particular, because within the same family you can find animists, Christians and of Muslims who live together and who are sharing the same meals and the same drinks. Therefore, Muslims practitioners that are converted from the African animist religion, and who live in harmony with other religious believers do not apply rigorously the precepts of Islam as it should. This contact between Islam and African traditional religion (animism) is called syncretism or black Islam by Quéchon (1971: 206). This religious syncretism known in the West African region explains the fact that some Muslims whatever their degree of belief contribute to increase the number of consumers of industrial alcoholic drinks in the context of Burkina Faso.

Research hypotheses or research propositions

The following are the research hypotheses (Figure 1):

- H1 or P1:** *Religiosity influences consumer behavior.*
- H2 or P2:** *If the degree of religiosity is high, the consumer behavior towards industrial non-alcoholic drinks is high and the consumer behavior towards industrial alcoholic drinks is low or null.*
- H3 or P3:** *Personality traits influences consumer behavior.*

MATERIALS AND METHODS

The epistemological posture is post-positivist. The approach is hypothetico-deductive with a literature review, a qualitative survey and a quantitative survey. For the qualitative study the research is carried out using an instrument that is an interview guide addressed

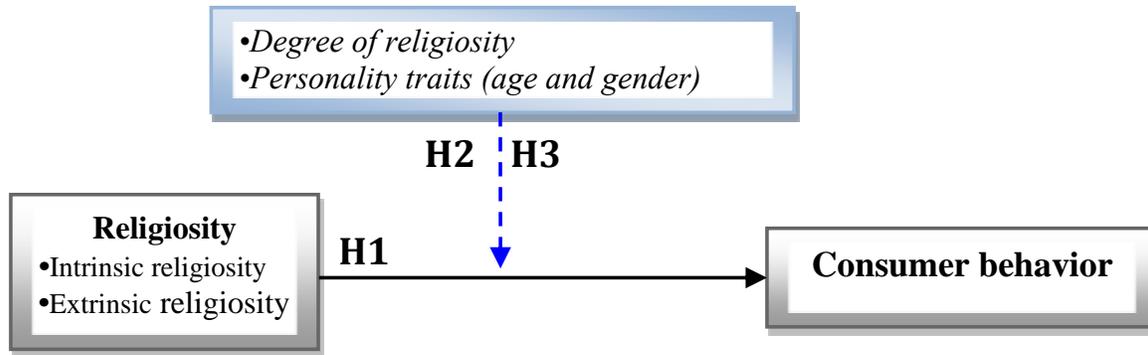


Figure 1. Research model.

to consumers of industrial drinks. The number of questions is twenty-one (21). These questions are constructed using the variables identified by the literature review. First, the random sampling strategy is simple and it consists in identifying places (restaurants and snack bars) where industrial non-alcoholic drinks are sold and where the consumers of industrial drinks are; and then to ask them for an interview in their own free time. The interviews take place in the participant's home or at a location chosen by the participant, and where there is less noise. The identified participants are encouraged to invite other dedicated participants who meet the research criteria, and who agree to provide their regular participation in the study. This qualitative survey is conducted using a semi-structured interview guide addressed to respondents who are experienced industrial consumers of soft drinks. The interviews are carried out using a digital voice recorder, then, they are transcribed by hand thanks to the audio software "SONY sound organizer." The "saturation criterion" is used to stop data collection, because generally the last interview does not give more information. The country where the research is conducted is Burkina Faso. The research field is Ouagadougou, in the province of Kadiogo for a period of two years. The participants considered the following criteria that include age, gender, religion, education level, marital status, profession, social class and nationality. First, the age of participants ranges from 10 to over 64 years. The gender of participants includes women and men who are Muslims. Third, the education level of participants is from primary school to university. Participants are also from different professional categories and different social classes. Then, a content analysis is performed by considering the themes and the relevant verbatims. Qualitative survey data are supplemented by direct observation and indirect observation. The interview guide is validated by teachers and University professors (Dr. Bado Niamboué at Florida A. and M. University and Pr. Marc Bidan of the University of Nantes in France and Dr. Elvis Yevudey at Aston University). The post data validation is made and respondents reiterated the same views. Data are measured on a regular basis with the same instruments and the same results are obtained.

For the quantitative survey, the research is conducted using a questionnaire. The number of questions is thirty-nine (39). This is an adaptation of a scale measuring religiosity in the context of Burkina Faso, from the religious orientation scale of Allport and Ross (1967). Items are measured on a Likert scale in four (4) items ranging from "totally disagree" to "strongly agree." These four (4) items are respectively "totally disagree", "slightly agree", "agree", "strongly agree." The Likert scale of four (4) point is chosen not only to avoid neutral answers and collect the good answers, but also to allow respondents to save time because most respondents encountered were in rush. First, the sampling strategy to locate the participants consists of identifying places (restaurants and snack

bars) where industrial drinks are sold and where consumers of industrial drinks are, and to ask them to fill questionnaire. A random sampling technique is used because of lack of time. The questionnaire is pre-tested. To set the sample size, the following formula is used: $n = (p \times (1-p)) / (e / 1.96)^2$; with p representing the observed percentage and maximum error e (Ganassali, 2009: 51). The maximum error associated with sample is 0.5% = is to say that the error is estimated for an observed percentage of 50%. In this case the formula becomes: $n = (0.5 \times (1 - 0.5)) / (e / 1.96)^2 = 0.25 / (e / 1.96)^2$. The number of people to interview for a maximum error of 6.5%, and n is = 229 people. The total number of respondents is 235, which is representative. The research field is Ouagadougou, in the province of Kadiogo. Investigations are conducted for a period of two years. Participants considered the following criteria that include age, gender, religion, education level, marital status, profession and social class. The age group ranges from 10 to 45 years and above. The gender of participants includes women and men. Third, the participants' level of education is from primary school to university. Participants are also from different professional categories and different social classes. Quantitative data is processed using the sphinx plus²-V5software, the sphinx IQ software and the Sphinx IQ²software. The chosen measuring instruments allow one to understand as much as possible the phenomenon to be measured and accurately to measure what one wants to measure (Carrino et al., 2010). The questionnaire is validated by Dr. Bado Niamboué at Florida A and M University and by Dr. Elvis Yevudey at Aston University.

RESULTS

Results of the qualitative study

For the qualitative approach an interview guide is used and the total sample is 10 interviewed.

They are all Muslims, including men and women from all the social classes that have a level of education from primary school level to the university level; and they live in the city of Ouagadougou. First, the results clearly show that religiosity influences consumption behavior towards industrial non-alcoholic drinks in the context of Burkina Faso. Second, there is an influence of religiosity on the consumption behavior of Muslims believers towards industrial non-alcoholic drinks. Some Muslims prefer industrial non-alcoholic drinks:

"My religion that is Islam forbids it formally for a Muslim to consume alcohol, even to carry alcohol or sit on a table where there is alcohol. ... Personally, considering my religion I will choose industrial non-alcoholic drinks; Because of my religion. Yes, my degree of belief has influenced this choice." Respondent 1.

Muslims who have a high degree of religiosity and whose doctrinal practice is perceived in their consumption behaviors tend to prohibit the consumption of industrial alcoholic drinks and increase the consumption of industrial non-alcoholic drinks. Here is an evidence of the verbatim of the respondent 8:

"I have a religion, Islam. Yes, I have a denomination because I am part of the Sunni community and I practice it. I strongly believe in my religion. I would say that I participate moderately in term of my commitment. I would say that I do not participate enough in the activities of my religion. Uh, my Muslim religion does not prohibit industrial non-alcoholic drinks consumption. Industrial alcoholic drinks consumption is prohibited in Islam. (...) I have always preferred industrial non-alcoholic drinks because my religion forbids industrial alcoholic drinks consumption." Respondent 8

In addition, some factors related to personality such as age, profession, have an influence on consumer behavior towards industrial non-alcoholic drinks. One observation is that the more the person is young, s/he tends to prefer industrial non-alcoholic drinks. This can also be explained by the fact that the young often do not have enough financial means to procure industrial alcoholic drinks because Burkina Faso is a poor country, poverty is much more felt at the youngest population level who is unemployed; Burkinabe law also prohibits access to drinking establishments to very young people. Industrial alcoholic drinks being expensive, most young people are not rich enough to the point of always being able to meet expenses regarding the consumption of industrial alcoholic drinks because it is in this age that one finds the most unemployed; this brings them to sometimes consume industrial non-alcoholic drinks:

"And, yes, I have a religion, my religion is Islam, I am practicing, (...) In terms of alcohol consumption, whatever attraction to alcohol my religion condemns it without reservation there is not half measures. (...) Well, if there is a choice between these two drinks, industrial alcoholic drinks and industrial non-alcoholic drinks as a Muslim I would prefer the industrial non-alcoholic drinks." Respondent 10 (unemployed, age 23 years).

In contrast, some adults have the means to purchase industrial alcoholic drinks and to consume; it is in this age fringe that people have a little more money. However, there are also health reasons for the fact that some

adults are much inclined towards the consumption of industrial alcoholic drinks because most of the older people should pay attention to sugar:

"I am a Sunni Muslim. I strongly believe in God. I may not know everything, but there is not a religion that does not consume. In every religion, there is a consumption of drinks. There is not a religion in which one does not drink. For me, one should not consume industrial alcoholic drinks and your children are sacked from school because, because their dad body smells and drinks too much, and cannot pay their education; one should not consume alcoholic drinks if at one's home there is not something to eat or some money to buy vegetables or some money aside for food; and we see that it is because of alcohol that there are problems like this at home, then this is not good. You need to consume and make sure that at home there is everything; if there are not so do not consume (...) I will choose the industrial alcoholic drinks because I do not drink industrial non-alcoholic drinks. It's my choice. I'd rather have a beer. No, it's my choice beliefs are not concerned." Respondent 7 (age 64 years)

Moreover, gender is also a factor that influence consumer behavior towards industrial non-alcoholic drinks because it is noticed that Muslim women are much oriented towards the consumption of industrial non-alcoholic drinks:

"I have a religion; it is Islam. (...) I strongly believe in my religion. (...) Alcoholic beverage consumption is prohibited in Islam. (...) I have always preferred industrial non-alcoholic drinks because my religion forbids industrial alcoholic drinks consumption." Respondent 8 (single woman, age 27 years)

The analysis of the verbatim shows that the most popular industrial non-alcoholic drinks in this research are: Coca-Cola is first with 23.33%, Fanta is second with 20%, Dafani is third with 16.66%, Lafi water, Fruity, and Sprite are fourth with 11.66% for each of them (Table 1).

In contrast, it is found that the most popular industrial alcoholic drinks are: Brakina is first with 40%, Beaufort is second with 28%, Sobbra, Guinness, Flag, and 33 Export are fourth with each 8% (Table 2).

Results of the quantitative study

The value of the chi-square shows that the items are sufficiently homogeneous and correlated to each other (Table 3).

The alpha of Cronbach value between different items of religiosity (a total of 20 items) is 0.84 indicating that the items are strongly correlated. In addition, the alpha of Cronbach value between the different items of extrinsic religiosity (11 items) is 0.73 indicating that the items are

Table 1. Classification of the most popular industrial non-alcoholic drinks.

Industrial non-alcoholic drinks	Frequency	Relative frequency	Percentage
Coca-cola	17	17/60	28.33
Fanta	12	12/60	20
Dafani	10	10/60	16.66
Sprite	07	07/60	11.66
Eau lafi	07	07/60	11.66
Fruity	07	07/60	11.66

Source: Nasse (2016).

Table 2. Classification of the most popular industrial alcoholic drinks.

Industrial alcoholic drinks	Frequency	Relative frequency	Percentage
Brakina	10	10/25	40
Beaufort	7	7/25	28
Sobbra	2	2/25	8
Guinness	2	2/25	8
Flag	2	2/25	8
33 Export	2	2/25	8

Source: Nasse (2016).

Table 3. Results of the alpha of Cronbach.

Variable	Number of items	Alpha of Cronbach
Religiosity	20	0.84
Intrinsic religiosity	9	0.78
Extrinsic religiosity	11	0.73
Consumer behavior	9	0.63

Source: Nasse (2016).

strongly correlated. Then, the alpha of Cronbach value between different items of intrinsic religiosity (9 items) is 0.78 indicating that the items are strongly correlated. In addition, the alpha of Cronbach value between the different items that fall within the consumer behavior towards industrial non-alcoholic drinks (9 items) is 0.63 as indicating that the items are strongly correlated. For further these data reveal that most survey respondents are much more oriented towards intrinsic religiosity rather than extrinsic religiosity. In the quantitative approach a questionnaire is used and the overall or total sample is of 235 respondents; all Muslims and sample characteristics are summarized in the following Table 4.

The processing of the data has revealed relevant identical relationships between the variables. First the correlations between "religiosity" and "consumer behavior", shows that the relationship is very significant with a p-value = <0.01; and a degree of freedom df = 400; and the chi-square is = 3034.32. Second, correlations

between "personality traits" and "consumer behavior", shows that the relationship is very significant with a p-value = <0.01; and a degree of freedom df = 320 and the chi-square is = 2636.49 (Table 5).

DISCUSSION

The results obtained through both the quantitative study and the qualitative study allow the comparison of theoretical hypotheses or propositions and the results of empirical research to check whether the various hypotheses or propositions set out at the beginning of the research are confirmed. The results of the quantitative survey have provided a number of significant items and thus they confirm the hypotheses. First of all, observations and document analysis, and the results of the quantitative study show clearly that there is a probable link between religiosity and the consumer

Table 4. Details of the quantitative sample.

Parameter		Percentage
Religious affiliation	Muslims Shiites	24.7
	Muslims Lahilaas	37.4
	Muslims Sunnis	37.9
Age	10 to 25 years old	83
	26 to 35 years old	8.5
	36 to 45 years old.	8.5
	46 and more	0
Social class	Poor	38.3
	Rich	61.7
Marital status	Single	57
	Married	32.8
	Divorced	10.2
Profession	Private sector	17
	Unemployed	73.6
	Public sector	9.4
Level of education	University studies	60.4
	High school studies	39.6
	Primary school studies	0
Gender	Men	24.3
	Women	75.7
Nationality	Burkinabe	80.4
	Non Burkinabe	19.6

Source: Nasse (2016).

Table 5. Results of the different relationships between variables.

Variables crossing	Results
"Religiosity" and "Consumer Behavior"	p-value = < 0. 01; $\chi^2 = 3034.32$; df = 400. The relationship is very significative.
"Intrinsic religiosity" and "Consumer Behavior"	p-value = < 0. 01; $\chi^2 = 3771.06$; df = 400. The relationship is very significative.
"Extrinsic religiosity" and "Consumer Behavior"	p-value = < 0. 01; $\chi^2 = 3829.13$; df = 400. The relationship is very significative.
"Personality traits" and "Consumer Behavior"	p-value = < 0. 01; $\chi^2 = 2636.49$; df = 320. The relationship is very significative.

Source: Nasse (2016).

behavior (Patel, 2010; Diop, 2012) towards industrial non-alcoholic drinks, although this influence appears to be very partial; not only the degree of relationship between intrinsic religiosity and consumer behavior towards industrial non-alcoholic drinks is significant but also the degree of relationship between intrinsic religiosity and the consumer behavior towards industrial non-alcoholic drinks is very significant. The quantitative

results clearly show that most respondent are much oriented toward intrinsic religiosity with 67% of respondents who consume industrial non-alcoholic drinks and 23% who consume industrial alcoholic drinks. Similarly, the qualitative study confirms the same results through analysis of transcripts.

Thus, one can conclude that hypothesis 1 and proposition 1 is confirmed.

H1 or P1: Religiosity influences consumer behavior towards industrial non-alcoholic drinks

Second, previous studies on religiosity and consumer behavior have shown that the greater the degree of religiosity of the individual is, the higher then it tends to adhere to consumer principles advocated by religion (Mokhlis, 2008). In the context of Burkina, the results of the quantitative study and the qualitative study show that a large variability of the degree of religiosity can be explained by a high variability of consumption (and / or purchasing) of industrial non-alcoholic drinks and a non-consumption or a low consumption of industrial alcoholic drinks. The perceived degree of religiosity has a dampening effect on the consumption (and / or the purchase) of industrial non-alcoholic drinks. Therefore, if the degree of religiosity is high, the consumption (and / or the purchase) of industrial non-alcoholic drinks is high and the consumption (and / or purchase) of industrial alcoholic drinks is low or null; so, hypothesis 2 or proposition 2 is confirmed.

H2 or P2: If the degree of religiosity is high the consumption behavior towards industrial non-alcoholic drinks is high and the consumer behavior towards industrial alcoholic drinks is low or null

Third, the quantitative and qualitative results show that personality influences the consumer behavior towards industrial non-alcoholic drinks. Not only this can be observed but also the degree of relationship between personality and consumer behavior towards industrial non-alcoholic drinks is very significant; hypothesis 3 or proposition 3 is confirmed:

H3 or P3: Personality influences the consumer consumer behavior

Conclusion

The main conceptual contributions are the conceptual enrichment. Concepts such as religiosity and consumer behavior have already been defined by prominent authors in the Western context, in the Asian context; and in the African context. However, these concepts are discussed, analyzed and enriched again in the context of Burkina Faso for some specific needs related to their understandings and their uses. In terms of methodological contributions, it is essential to recognize a creation of new tools through a mixed approach that takes into account the socio-cultural realities of Burkina Faso. Concerning theoretical research contributions, this study confirms that in the context of Burkina Faso religiosity has a partial influence on consumer behavior towards industrial non-alcoholic drinks. This result leads to new theoretical findings that religiosity influences

consumer behavior with some different choice factors, such as government measures on products, natural taste of products.

Regarding the managerial contributions of the research, it is essential to take into account the concept of religiosity in the marketing of the industrial non-alcoholic drinks in Burkina Faso. This research led to the creation of a new research model that can inspire managers of different companies in the industrial drinks sector to change their marketing strategies and the management of this sector which is important for the economy. The results provide relevant information on how companies operate in the manufacturing and marketing of industrial drinks, and how they can be positioned according to their marketing strategies in a country where the consumer behavior of different religious groups affects the consumption of industrial non-alcoholic drinks. Religiosity affecting the consumption of industrial non-alcoholic drinks managers can avoid putting industrial alcoholic drinks places next to Muslim worship places what may help to solve or to avoid some social conflicts. Here is evidence by one respondent:

"Sale of industrial alcoholic drinks next to a Mosque is forbidden, considering the prayer hours, if we do not pay attention, if the noise is higher than the other it is problematic; a drunkard may also come to urinate next to the mosque." (Respondent 1)

The diversification of this sector and the sufficient production of drinks can solve a need in terms of industrial non-alcoholic drinks, often expressed mostly by religious people in the festive season (Ramadan and Tabaski) because some Muslim consumers often want to consume "halal products" but the environment does not favor this (Diop, 2012: 20); for example during the Muslim feasts a remark is that there is usually a shortage of industrial non-alcoholic drinks, what is driving some consumers to drink industrial alcoholic drinks. In addition, for Muslims putting halal drinks on the market, during the Ramadan and Tabaski could meet the expectations of some. Finally, lowering the prices of industrial non-alcoholic drinks may help address the lack and the need of food for a large majority of Burkinabe (Sow, 2005), the low purchasing power of the majority of Burkinabe and the medical function of these drinks. On this basis, one can conclude that in the context of Burkina Faso some Muslims whatever their degree of belief, contributes to increase the consumption of industrial alcoholic drinks and this can be explained by religious syncretism (Quéchon, 1971). This religious syncretism shows that the practice of Islam in Burkina is a moderate practice due to the influence of animism (the dominant religion in the past, from which the majority of believers have turned to Islam) which does not prohibit the consumption of industrial alcoholic drinks. The influence of religiosity on

consumer behavior towards industrial non-alcoholic drinks is partial; because some of the believers have difficulty in meeting the consumption practices of their religion, especially in this specific consumption area.

The inclusion of the concept of religiosity in the management and marketing of industrial beverage companies could be the answer to the basic needs and the core expectations of some consumers in Burkina Faso, as well as some key solutions to eradicate poverty, social conflicts (Dumbili, 2013), and a development factor for jobs creation.

Implications for companies in the context of Burkina

It is essential to take into account the concept of religiosity in the manufacture and marketing of industrial drinks. The management of companies in this sector should plan the diversification of industrial non-alcoholic drinks with innovative products and highly qualitative and environment friendly products which also take into account the expectations and the needs of both religious and non-religious people.

Implications for the authorities of Burkina

There is an emergency for the authorities to set up some mechanisms to tackle the counterfeit industrial drinks on the market and to help protect the environment from the excessive pollution by drinks packaging for a sustainable development. There is also a need to considerably reduce the prices of industrial non-alcoholic drinks and to rather increase the price of the industrial alcoholic drinks.

Future research

It would be helpful not only to extend this research to other different research areas different from the industrial drinks sector, or to extend it to other religious believers, or to conduct it in other African countries to see whether the results are the same.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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