***Consumer Culture, Perception and Diffusion of Innovation: A Cross Study of Cameroon Regions***

 **Abstract:** The death of most quality new products at the introduction phase of the product life cycle has been a call for concern as most entrepreneurs become discourage in business. This has motivated us to verify the role of culture in the acceptance and diffusion of innovation in order to take customers to the long run. Our instrument of data collection is questionnaires administered in the main regions of Cameroon. Variables such as language, collectivism, religion, beliefs, values, customs and pride are used to capture culture. We have used Chi square analysis test, multiple correspondence analysis, the test of T student, poison regression analysis, and Spearman correlation test in the data analysis.

We find that, language, pride and collectivism have a positive and significant influence on innovation decisions in Cameroon and that the south, East and centre are areas of low cultural impact while the rest are of high cultural impact. We have equally found that South, East and Centre region are adherent to new products while the rest of the Regions are novice.

Innovation decision making should take consumer culture as a relevant variable. From these results new products should first be lunch in the rest of the regions and gradually to the Centre, East and south Region.

**Key words**

Product innovation, Cultural values, Cameroon, product acceptance and Product diffusion

1. **Introduction**

The reason why the rate of acceptance of new products, vary considerably across the world, is still the concern of most researchers. According to Chandrassekarun and Gerard (2007) culture and wealth are solely responsible for these variations. Cultural differences play a great role in commercial negotiations by determining the time period needed for the acceptance and adoption of new products (Verschuere, 2014; Usunier, 1987). Touzani et al; (2003) have evaluated the impact of culture on consumer innovativeness in the Tunisian context and find that conspicuousness, acculturation, conservatism, temporal orientation towards the future, family influence, wealth, and religion are predominant predictors of consumer innovation. However, the existing literature on take-off suffers from the following limitations:

1. A greater proportion of the studies on the take-off of new products have been conducted primarily from the west, excluding the fast growing economies of China, India, Korea, Brazil, and the African continent (Van der Leeuw, 1990; Hofetede, 2000., Soares et al; 2003; Dwyer et al; 2005, 2008; Chandrassekarm, 2007; Leon, 2008) With the exception of Ekerete (2001) who has researched in Nigeria

2. Researchers disagree on what causes differences across regions, never the less take-off has been seen primarily as a cultural phenomenon with wealth being a less significant driver (Tellis *et al* in Candrassekarun 2007. Dwyer et al; 2008; Nkiendem et al; 2017)

3. The identification of innovative consumers markets which are the best launch pads for new products; Even though wealth has been estimated by some researchers (Chandrasekaran and Gerard 2007; Witheside and Tiltman, 2013) as the principal factor explaining the variation in time to adopt new products, we want to assume that culture is the main determinant. This is because culture can be thought of as differences in attitude or inclination that determines purchase behaviour. As such, at any time we think of producing a new products, we must ask the question: What is the right thing to do? Giving what we now know in terms of consumer’s ethics (Kaur, 2000)

Some Enterprises use persuasive, entertaining and seductive advertising to force the consumers to buy what the production manager wants them to buy(Degoberto, 2005; Mc Cracken, 2008; Nkiendem, 2017) instead of adapting the products to consumer culture. Whatever, the intensity of advertising, it cannot force consumers to buy a bad product twice. It seems relatively difficult having adequate knowledge of consumer behaviour without a thorough understanding of culture, psychology, and sociology. But out of these three, culture seems to be the most influential (Hofstete, 2000; Ekeret, 2001; Decobeto, 2005; Mc Cracken2008; Nkiendem, 2015). This consideration lies in the fact that culture is a source of consumer behaviour (Toivonen, 2011). A product can make consumers delighted only if consumers’ touch points are taken into consideration when mixing the mix (Nkiendem, 2015). Of course, he who talks of consumers’ touch points talks of culture. Innovation means changing in function of environmental variables which have culture as a relevant variable (Okan *et al;* 2012). A greater proportion of the studies on the take-off of new products have been conducted primarily from the west, excluding the fast growing economies of China, India, Korea, Brazil, and the African continent (Van der Leeuw, 1990; Hofetede, 2000., Soares et al; 2003; Dwyer *et al*; 2005, 2008; Chandrassekarm, 2007; Leon, 2008) With the exception of Ekerete (2001) who has researched in Nigeria. Researchers disagree on what causes differences across regions, never the less take-off has been seen primarily as a cultural phenomenon with wealth being a less significant driver (Tellis et al in Candrassekarun 2007. Dwyer et al; 2008; Nkiendem; 2015)

 Again we have found that, early works in this domain have focused on the whole affective-cognitive behavioural spectrum of ethical decisions (Alexandre, 1954; Katharina, 2004), cultural programming, cross-cultural analysis, culture and globalization, cultural dimension of individualism (James and Tim,1999; Hofstede, 2000) etc This study thus, aims to answer the Question: How does consumer culture influence the perception and diffusion of innovation in Cameroon? This interrogation takes us to the investigation of how cultural variables dictate the manner to which enterprise develop products or innovate products. From here we can formulate the following hypothesis:

Consumer culture has a significant influence on the perception and diffusion of innovation in Cameroon.

This study would contribute to the current limited body of literature by trying to ascertain the influence of cultural factors (collectivism, religion, wealth, customs, beliefs, values and pride) on the acceptance and diffusion of new products as we move from one region to another. It will go further to segment the country in terms of acceptance of innovation using the adopter category

The rest of the paper will be organised as follows: 2. Review of innovation, 3. Culture and consumer perception, 4. model presentation 5. data analysis 6. Regressions analysis 7. discussion of results and 8. conclusion.

1. **Review of innovation**

Although there are many categorizations of innovation offered by different researchers (Abernathy and Clark, 1985; Hjalager, 1997; Weiermar, 2006), in the innovation literature, five types of innovation are commonly used by researchers. These are process innovation, service/product innovation, organisational innovation, marketing innovation and business model innovation.

Organisational innovation is internal while market innovation is external and focuses on the mix and the macro environment. These two could further be broken down into incremental (the market is old and the technology is old), disruptive (the technology is new and the market is old), radical(the technology is new and the market is new) and architectural( the technology is old and the market is new) innovation.

* 1. **Organizational Innovation**

Organisational innovation refers to the adoption or creation of new management practices, ideas or organisational forms. There are three theories for organisational innovation namely: organisational design theory, organisational learning theory and organisational change theory (lam, 2005). organisational design theory looks at the organisational structure and the role it plays in innovation. Organisational learning is important for innovation and it looks at knowledge creation and assimilations which are crucial for enhancing the capability to innovate (chen and huang, 2009). Structural organisational innovations involves the changes in the organisations structure like changing an organisation, product development, marketing, restructuring employees to make sure that the enterprise would better satisfy client’s needs, business units, segments and other market segments. This will also entail implementing strategies for more effective communication and better channels, improvement of responsibilities and accountability.

Procedural organisational innovations involve changes that will affect activities such as the processes, operations and the way the organisation behaves. This is essentially implementing new and improved procedures of doing things in the organisation like just in time concepts, process engineering, zero buffer rules (kinkel *et al*., 2004). Other components of innovation include work force training and incentive programs like stock option plans (black and lynch 2005). Organisational innovation is directly linked to the increase in a firm’s capability and also brings technological innovation. Organisational structure impacts positively the organization to come up with new strategic ideas (günday *et al*., 2011). organisational innovation is an output that is important to firms. These new ideas enable the enterprise to add value to the enterprise which attracts customers to the company.

Organisational innovation is essential for performance but also support for technical innovation (sanidas, 2004). Organisational innovation will provide the essential conditions for technical innovation which includes product and technical innovation process (armbruster, bikfalvi, kinkel, & lay, 2008). There are many kinds of innovations that the organization can adopt which includes amongst many the practices of total quality management, lean production, divisionalization (‘m- form’) and the balance score card (womack & jones, 2003; liker 2004; Birkinshaw et al. 2008). Organisational innovation will encompass both changes in technology and anticipation in changes in the environment. These particular changes in the organisation especially in manufacturing are vital to enable the company outperform its rivals.

When companies put these strategies in place, they would better master the needs of customers and above all be able to put in place new ideas while taking advantage of innovation practices that would permit the companies to be more productive and effective.

* + 1. **Market Innovation**

It’s important noting that market innovation is an input to organizational innovation and it is the focus of this paper. For Rosli (2013) market innovation is the use of the marketing mix with an aim of satisfying the customer’s preference. For her, Organisations should give great importance to market innovation since it enables the organisation to reach out to its customers more rapidly and efficiently. Market innovation enables the organisation to respond to the market opportunities by meeting the customer’s needs (Rodrigues-Cano et al., 2004).

Accordingly, market innovation is an example of new and incremental innovation. In line with this view SMEs who integrate incremental innovation into their strategy tend to have a competitive advantage especially large organisations (Bhaskaran, 2006). Similarly, it is also important to note that SMEs rarely undertake internal R&D, therefore, through market innovation they can attain successful results as large firms with internal R&D (rammer *et al*; 2009).

**2.1.1.1 Incremental, radical, and disruptive Innovation**

Incremental innovation deals with slight modifications in the company’s product and focus on cost and or feature improvements while disruptive innovation deals with major changes and it changes the market completely as the products are unique eg Zoom, spotify,Wikipedia, the personal computer, mobile telephones etc. The third type of innovation is radical innovation which stems from organizational culture while disruptive is linked to business model variations and recognition of customer’s needs. Radical innovation as well as disruptive innovation require displacement of current products and modifying relationship between customers and suppliers or creating completely new product categories (Davide et al 2018). They are at times use interchangeably. When Toyota came up with Rav4 it was a radical innovation but the different versions of Rav 4 are referred to incremental innovation. This study is focused on radical innovation as explained by the adopters category (fig I)

There are many ways that we could also categorise innovation according to the works of abernathy and clark, 1985; hjalager, 1997; weiermar, 2006. Innovation can be in the process, innovation in products, innovation in organizations, innovation in marketing etc. Process innovation has as objective, to increase the “efficiency and productivity”. According to schumpeter (1936) innovation encompasses the entire process, which starts an idea and continues “through all the stages leading to output that make an impact on the country or economy. Innovation can also permit companies to adapt to the environmental challenges that we all face today

1. **Culture and Consumer Perception**

If we look at culture as shared beliefs, attitude, norms, roles and values found among speakers of a particular language, who live within a particular time period in a specific geographical region, then, it should obviously dictate the behaviour of various groups (Hofestede, 2000; Dwyer, 2000; Ekerete, 2001). Major changes in climate and ecology, historical events, cultural diffusion (migration or exposure to products from other countries) may drastically determine the culture of a people in different regions.

Culture influences behaviour and consequently the spread of innovation in that, when people are immersed in a certain culture, they develop a common pattern of thinking. This influences the degree to which the behaviour of individuals, groups and institutions are viewed as legitimate, acceptable and effective. Now, if culture is responsible for the variation in the rate of adoption of new products, what are the cultural elements responsible for these? Most authors agree that in-group collectivism, power distance, performance orientation, religiosity, and uncertainty avoidance are solely responsible (Hofetede, 2000; Ekeret, 2001; Rick, 2012).

Cultural elements play an important role in determining the behaviour, attitude, habit, taste, preferences, and criteria of evaluation and mode of consumption (Nkiendem, 2015). It conditions the acceptance and diffusion of innovation and constitutes behavioural norms which are the quid for action, provides criteria for judgement, and influences the adoption or refusal of new products (Degobeto, 2005; McCracken, 2008; Jiyul, 2009; Okan, Paul, and Dalgin 2012). For them the degree and the direction of influence depend on the compatibility of the product with the culture and the norms of the social system in which the consumer is attached to. A comparative study carried out in Senegal, US, India, Korea, and Thailand shows that selected cultural variables such as tradition and religion give room to better explain the variation in the rate of innovation (Touzani et al, 2003)

* 1. **Religion**

It is the belief in and worship of a superman controlling power especially a personal God or Gods depending on the faith of each and every one. It influences the behaviour of the consumer and can be a determinant component in mix decision making and plays an important role in the resolution of the consumers` problems and the adoption of new products (Rick, 2012). It can restrain or direct market related responses (Choi, 2010).Thus, the more the religious and traditional implications, the lower the innovative behaviour since religion gives more importance to the spiritual world than to real world situations (Amman and Jordan 1993). Innovation is basically the issue of products emerging as a result of modern society. New products are often synonymous to the coming of western culture and are often perceived as being incompatible with religious values. In effect, the strong conflict between tradition and modernity can be translated by the refusal of new products (Khenfer et al, 2014; Mokhlis, 2010; Swimberghe *et al*; 2011). This is particularly the case with the Northern Regions of Cameroon where change is not easily welcome.

* 1. **Collectivism**

Collectivism has been noted for having a considerable influence on consumers’ behaviour in the adoption of new products. This study applies an approach to consumer culture through collectivism and the other factors mentioned above that recognise and measure the multidimensional aspects of consumers’ culture. Focusing specifically on the `where’ of the key strategic launch decisions. Dwyer *et al;* (2008) suggests that, ideally, an innovation should be introduced first in countries that are high in individualism, masculinity and power distance which we suppose are real characteristic of the Cameroon society.

In individualistic societies, the ties between individuals are loose and people prefer to act as individuals rather than as members of a group (Usunier, 2001). In these societies there is less conformity, autonomy, variety, and individual initiatives are encouraged. On the contrary, in collectivist societies, individual initiatives are frowned upon (Soares *et al.,* 2003).

* 1. **Beliefs and Values**

They determine specific situations and orientate consumer behaviour towards purchase decisions (Nkiendem, 2017). They determine what is wrong or right and consequently determine what is good and bad which are indispensable inputs to purchase decisions. From this judgement we have the assumption that, they will equally intervene in the adoption of new products. When a consumer belongs to a cultural group having values motivating their security, he manifests a conservative behaviour which results to a low degree of innovation (Daghfous and ali, 1999; in Tuzani 2003).

The values of a culture can discourage or encourage innovation. A practical example where the culture of a people can make them to reject certain products or innovations is seen with the new product of CAMTEL CAMEROON in 2009 (a fixed phone, called payphone which requires the consumer to master much information before being able to make a call e.g., choosing the language of communication, and listening to get the next step and so on). *This product might have failed in the Cameroon market due to the lack of cultural realities. First, Cameroonians like easy going things, second, they like face to face contact in business, third, the literacy rate is low, fourth, they feel too proud to be calling people to come and direct them on what to do at each instance***.** Consequently, despite the low price per minute the product has failed in the Cameroon market (Nkiendem, 2015).

* 1. **Collectivism/Individualism**

Individualism stems from the fact that one is the owner of his or her life and has an absolute right to live it according to his wishes and desires and his purchase decisions are highly personal depending on the behaviours of the immediate family. On the other hand, Collectivism is based on the concept that, the life of an individual belong to the group or society he comes from. He /She should give priority to the values and goals of the group rather than his personal values. The idea of collectivism says that the society should dictate beliefs and values to the individual. The United States culture is individualism based (Hofestede, 2000) while Africa and Cameroon in particular are collectivism based (Nkiendem, 2015). The concept of personality is high in individualistic countries (De Mooij 2010)

* 1. **Uncertainty Avoidance**

We can define uncertainty avoidance as the extent to which the members of a culture feels threatened by uncertain or unknown events or situations. Compared to high uncertainty avoidance culture, low uncertainty avoidance culture is characterised by more risk taking, openness to change and innovation and willingness to take unknown risk, (Soares.2003). What is different is curious attitude and preference for tasks with uncertain outcomes and calculated risk. Brand loyalty, which is closely related to the repetitive behaviour proneness and brand switching, should be higher in uncertainty avoidance culture. High uncertainty avoidance should be associated with risk aversion.[[1]](#footnote-1)

 **3.6.** Power Distance

This is the extent to which the less powerful members of the society expect and accept that power is unevenly distributed. In high power distance society there is emphasis on equality and conformity in lieu of independence and freedom, Hofstede (2000). They show greater reliance on centralization and formalisation of authority and greater tolerance for the lack of autonomy. Soares et al (2003) finds that there is a negative relationship between power distance and optimum stimulation level. They suggest a positive relationship between power distance and perceived risk.

From the above we realise that power distance, collectivism, masculinity, and long term orientation all have a negative relationship with innovation but all have a positive relationship with risk-taking. On the other hand low uncertainty avoidance has a strong positive relation with innovation (Günday 2011). It follows equally that societies high in risk taking are equally high in innovation decision making. Cameroon being a collectivist, high power distance, masculine, and equally a high risk taking country, is supposed to have a high perception in innovative decision making.

All the above elements determine the beliefs and values of each community which in their own turn determine what is wrong, right, bad and good and thus determine purchase behaviour. This is seen in the following paragraphs.

1. **Model Presentation**

 Linear regression assumes that the outcome is unbounded and predicted values can be negative values, whereas events can’t happen less than 0 times. This makes linear regression not plausible in count data analysis. Given that our endogenous variable is a count data and some pockets rates of events are not left out, a model for count outcomes like the Poisson is plausible. A Poisson model is a generalised linear model with log link and Poisson family error distribution. It models the log of the mean response as a linear and additive combination of the predictor variables. It equally treats offsets and exposure by constraining rate events in unit area. Coefficients are obtained and interpreted as in any other regression model. Our endogenous variable is in log form that could as well be analysed using logistic regression but the underlying mathematics and underlying probability distribution theory are different from ordinary least-squares regression. This is why Poisson regression is retained as the suited model, even though, from the consumer's viewpoint, it's all regression.

**4.1 The Poisson log linear model**

From above, our variable of interest is of a count data as it takes the form of: 0, 1, 2, 3, and so on, the data is actually concentrated on a few small discrete values. Theoretically, basing on the transmission channel, our variable of interest (innovation) is strongly affected through the channels of consumer beliefs, values and customs, religion, language, collectivism and pride. Count data reflect the number of occurrences of a behavior in a fixed period of time as observed in our outcome variable. In cases where the outcome variable is a count with a low arithmetic mean (typically <0), standard ordinary least squares regression may produce biased results like our case, reason why we resolved to use the poisson model. One of the advantage of our conception is that our analysis as seen in the result section is appropriate for the scale of measurement of our variable. Thus, the general form of our model is specified as:

log(µ) = α + βx

Since the log of the expected value of Y is a linear function of the explanatory variable (s), and the expected value of Y is a multiplicative function of x:

µ = exp(α + βx)

$$µ=e^{α}e^{βx}$$

Where:

 µ is the dependent variable which stands for Innovation

 x is the independent variable representing culture which is measured in the on-going study with the following attributes; Collectivism, pride, religion, wealth, language, believe, value and customs.

The expanded form of our model after considering all the variables becomes:

*Log (innovation)= α + β1Collectivism + β2Pride + β3Religion + β4Language + β5Beliefs values and customs +β6Wealth + €1*

*Βi >0*

To ensure the reliability of our variables, we calculated Cronbach’s alpha for each variable. Multiple correspondence analyses enabled us to divide our respondents into two groups: those with a high cultural impact and those with a low cultural impact. We used the test of chi square, and the test of correlation of Spearman, and poison regression analysis.

1. **Data Analyses**

Our enquiry is done through a questionnaire administered through a random sampling technique. The sample size of 308 is justified by the possibility of having people from all the regions and the possibility to read and write.

The choice of segmenting the Country into regions and not divisions is justified by the fact that a market segment must be large enough to be targeted by national and international companies. We could not equally take national culture because it will be too standardized and make us go against the marketing tradition of customization. Many studies take market size and customisation as the base of segmentation (Kotle 2000;Touzani 2003 ; Soares 2003 Mc Craken 2008; Risk 2012 and Nkiendem 2017). It is true, that ethnic groups within regions have their own culture and specification relative to innovation but this is seen to be microscopic segments for enterprises. We, therefore, focused on the cultural elements that are shared by consumers of a region. In this case, we look at regional culture to be substantial in giving us segments large enough to be targeted taking into consideration the level of customization..

 Data collection took a time period of four months, ranging from October 2020 to January 2021. Out of the 400 questionnaire distributed, a total of 308 are used for the analysis.

For the variables: beliefs, values and customs, religion, pride, wealth and collectivism, we used likert scale where respondents are asked to choose between strongly disagree to strongly agree. These are categorical variables with five modalities. For wealth we use salary ranges were respondents are ask to indicate their salary ranges, thus, it is a categorical variable with nine modalities. For innovation respondents are ask to choose between five alternatives, so, it is a categorical variable with five modalities. The distributive statistics are given below

**5.1 Descriptive Statistics**

In this section of the work we use descriptive statistic tables to answer our research question to a certain extent for example income and risk bearing statistics, product diffusion etc. It is after this section that we engage on the analyses proper through regression analyses.

**5.1.1 Income and Risk Bearing**

We realised that the poor are ready to bear risk than the rich. When we try to verify this in terms of educational level, we equally noticed a strong relationship between educational level and risk bearing. Our statistics shows that risk bearing reduces with an increase in the level of education. At the primary level there is a 33.33% in support of risk bearing and 53.5% against risk bearing. At the secondary it is 44.3% in support and 48.7% against while at the higher level we have 34.56% in support against 55.7 6%.

This explanation can be based on the fact that as people become more educated, they become more rational and look for possibilities of avoiding risk. Furthermore, in most cases income increases with the level of education but that rich people are more rational than poor people because they have the means of good information than the poor. Wealth therefore has an inverse relationship with risk bearing.

**Table I: Income and Risk Bearing**

|  | I don`t care the amount of risk I may encountered in buying a new product | Total |
| --- | --- | --- |
| Strongly disagree | Disagree | Neutral | Agree | Strongly agree |
| Indicate your salary range |  0 - 50 000]  | 23 | 34 | 18 | 30 | 14 | 120 |
| [50 000- 100 000] | 12 | 13 | 6 | 13 | 7 | 51 |
| [100 000 - 150 000] | 6 | 11 | 2 | 12 | 5 | 36 |
|  [150 000 – 20 000] | 7 | 14 | 5 | 6 | 3 | 35 |
| [200 000 - 250 000] | 8 | 9 | 1 | 6 | 3 | 27 |
| [250 000 - 300 000] | 3 | 5 | 1 | 3 | 1 | 13 |
| [300 000 - 350 000] | 2 | 2 | 1 | 1 | 2 | 8 |
| [400 000 - 450 000] | 2 | 0 | 0 | 0 | 0 | 2 |
| [450 000 - 500 000] | 0 | 1 | 0 | 3 | 0 | 4 |
| [500 000 - 550 000] | 2 | 0 | 0 | 1 | 0 | 3 |
| [550 000 - 600 000] | 0 | 1 | 0 | 0 | 0 | 1 |
| More than 600 000 | 0 | 5 | 1 | 2 | 0 | 8 |
| **Total** | **66** | **95** | **35** | **77** | **35** | **308** |

Another reason for this is that poor and particularly blacks use consumption to shape their identity. For this reason they prefer to bear risk in order to purchase certain products simply to close the income and image gap that exists between them and the rich (see Lamont and Molnar, 2000).

**5.1.3 New products and Cameroon Consumers**

More than 60% of individuals interviewed love trying new products. More than six individuals on ten love being the first to try new products and some have the perception that it gives them a particular status in the society. Here we see that Cameroonians like trying new products in order to shape their image. This is in line with the perception of black Americans who use consumption to shape their identity, Lamont (2000).In the United State of America the blacks use the most expensive house equipment, cars, and live in the most expensive buildings in order to shape their collective identity. This is actually an aspect of pride. This is equally justified by the choice of cars, where respondents all choose to buy the most expensive mark even with a salary less than 70,000 FRS (Nkiendem, 2015).

**5.1.4 Innovation, Acculturation and Segmentation in Terms of Adopter Category**

From the table below it can be seen that the people from the East and Adamawa are reticent to innovation while the rest of the regions have a positive perception to innovation, therefore, we can segment the country in terms of their ability to accept new products. Thus, in lunching new products in the country, enterprises should progress in this order: South West and West, North West, Literal, North before penetrating the other regions gradually (see adopter category below).

**Table II: New Products Diffusion in Regions**

|  |  |  |
| --- | --- | --- |
|  | you like trying new products | Total |
| Strongly disagree | Disagree | Neutral | Agree | Strongly agree |
| What is your region of origin? | North West | 5 | 1 | 6 | 20 | 5 | 37 |
| South West | 3 | 2 | 10 | 31 | 12 | 58 |
| Littoral | 1 | 1 | 3 | 4 | 4 | 10 |
| South | 10 | 4 | 33 | 22 | 9 | 78 |
| Centre | 9 | 2 | 21 | 25 | 3 | 60 |
| East | 7 | 5 | 12 | 10 | 2 | 36 |
| West | 1 | 0 | 1 | 8 | 1 | 11 |
| Adamawa | 1 | 0 | 1 | 1 | 0 | 3 |
| North | 1 | 0 | 1 | 2 | 3 | 7 |
| Far north | 1 | 1 | 3 | 0 | 0 | 5 |
| **Total** | **39** | **16** | **91** | **123** | **36** | **308** |

From above, therefore, we can conclude that people from the Centre and south do not have a dynamic culture while the culture of the rest of the regions is less rigid.

**5.1.5 Classification of Cameroon Regions in terms of Acceptance of New Products (Diffusion of New Products)**

The adoption process itself is done in a series of stages from awareness of the product, evaluation, interest, and purchase. As seen in the table below innovators start the process, follow by early adopters and it progresses to the laggards.



Far N

South, Center, Adamawa and East

NW, North and Litoral ,

South WEST

AND WEST

**Figure 1: Adopter Categories in Cameroon**

Innovators are a small percentage of people who like to be seen to lead. In Cameroon these people are those of the south west and west. The early adopters are North West, north and Littoral (LT), the late majority are south, Centre and East and the Far north are laggards.

1. **Regression Analysis**

**Table II: The Impact of Beliefs, Values and Customs, Religion, Language, Collectivism, and Pride on Innovation Decisions (descriptive statistics)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Variable** | **Obs** | **Mean** | **Std.Dev** | **Min** | **Max** |
| **Beliefs values, and customs** | **308** | **28.13636** | **13.06265** | **0** | **53** |
| **Religion**  | **308** | **15.82792** | **7.081167** | **0** | **30** |
| **Language** | **308** | **16.77273** | **6.594364** | **0** | **28** |
| **Collectivism** | **308** | **26.4026** | **9.469633** | **0** | **43** |
| **Pride** | **308** | **2.74026** | **1.483043** | **0** | **5** |

The above descriptive table shows the averages and standard deviations for the different values. The mean indicates the average proportion the respondents from the set of observation yield to a given variable and standard deviation presents the deviation surrounding the mean. Using Pascal principle, the higher the mean, the lower the standard deviation and the more the relation. Collectivism, therefore, has a stronger influence as compared to religion and language. Pride has the least standard deviation but very low average showing appalling relation

**Table IV: Spearman Correlation Test on Culture and Innovation**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Innovation** | **Beliefs values and customs** | **Religion**  | **Language**  | **Collectivism** | **Pride** |
| **Innovation** | **1.0000** |  |  |  |  |  |
| **Biliefs values and customs** | **-0.0223** | **1.0000** |  |  |  |  |
| **Religion** | **0.0746** | **0.2431** | **1.0000** |  |  |  |
| **Language** | **0.4976** | **0.1668** | **0.2715** | **1.0000** |  |  |
| **Collectivism** | **0.1483** | **0.2009** | **0.1336** | **0.1529** | **1.0000** |  |
| **pride** | **0.0768** | **0.0191** | **0.0394** | **0.0615** | **0.0633** | **1.0000** |

From the table, beliefs, values and customs portrayed an inverse relationship with innovation, while religion, collectivism, language and pride have a positive correlation with product innovation. Language indicates the strongest correlation with product innovation meanwhile religion and pride are weakly correlated to product innovation

**Table V: Regression analysis**

**The table below gives us the level of significance of our variables.**

**Number observed= 308**

**Loglikelihood = 2768.0436 Wadchi2(5) = 33019.50**

 **Pro > Chi2= 0.0000**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Innovation** | **Coef** | **Std err** | **Z** | **P > Z** | **95%conf** | **Interval** |
| **Biliefs values and customs** | * **.0019448**
 | **.0014149** | **-1.37** | **0.169\*** | **-.0047178** | **.0008283** |
| **Religion** | **.0015378** | **.0029293** | **0.52** | **0.600** | **-.0042036** | **.0072792** |
| **Language** | **.1107425** | **.0032146** | **34.54** | **0.000\*\*\*** | **.104442** | **.1170429** |
| **Collectivism** |  **.0078697** | **.0018974** | **4.15** | **0.000\*\*\*** | **.0041508** | **.0115886** |
| **pride** |  **.0433624** | **.0101996** | **3.95** | **0.000\*\*\*** | **.0218192** | **.0649055** |

**P value evaluation: \*\*\* indicates 1 percent significance (best); \*\* indicates 5 percent significance (better); \* indicates 10 percent significance (good)**

From the above table, it is clearly seen that beliefs values and customs have 10 percent negative significance, religion is not significant while language collectivism and pride have a 1percent significance of 0.1107425, 0.0078697 and 0.0433624 respectively. Thus, from the five cultural values retained, regression results shows that language has a more positive influence on innovation than pride and collectivism.

The highest contributive capacity of language to innovation stems from the fact that consumers that are bilingual, trilingual and multilingual have fast and easy access to product innovation. As regard to pride, it is not surprising to realise that the latter depicts higher contributive strength because proud people in the first place are rich people and love distinguishing themselves from others through consumption. They are always the first to test new products and when many people start consuming, they look for new alternative as their motive for consumption is to distinguish themselves from others or show that they are more than others. Besides, proud people are fond of bearing risk as a result of their high purchasing power. This is justified by the fact that, if the product is not satisfactory they can easily reject it and look for a new alternative. Concerning collectivism, the least contributive capacity to product innovation is based on the fact that people collectively yield to product innovation with discouraging slowness due to variation in consumption patterns.

1. **Discussion of Results**

These results are in agreement with many cross cultural research results. From the results above, marketing as a whole should be looked upon as a cultural framework which agrees with the results of Degoberto, (2005). According to him, for marketers to conserve customers, they should consider culture in mixing the mix.

These results counteract the results of Levit (1983) in Steven (2006) where he talks of the standardization of markets but falls in line with those of Steven who argues that marketing is strongly influence by culture and that it should be adapted to fit different markets specificities. In the same light Soares and Touzani (2003) produce the same results as our results showing that innovation is a function of culture. His results showed that some cultures are innovative while others are not. This is the same results we have found in this study where the Centre, South and East are resistant to new products while the rest of the regions are not. Hofstede (2000), carried out the same studies in Australia and New Zealand and had the same results even though it was a cross Country approach.

Ekerete, (2001), carried out a research on the impact of culture on the marketing strategies of multinational companies marketing in Nigeria and still found out that culture has a strong impact on the markeing mix of multinationals. In the same light, Usunier in many of his researches has found the same positive impact as these results. According to him globalisation can only succeed if we think globally and react locally. Rick (2012), examined the impact of culture on distribution and still came up with similar results that culture has a determining influence on the distribution decisions of Enterprises.

Again Lamont (2001) and McCracke (2008), investigated the impact of culture on consumers’ goods and came up with the results that consumer culture is represented in the goods they buy which falls in line with the results of this study that culture has an impact on consumer innovation process

1. **Conclusion**

Our principal objective in this study is to examine the influence of culture on innovation and the take-off of new products in different Cameroon Region to partially fill the gaps found in the literature. Even though wealth has been estimated by some researchers as the principal factor explaining the variation in time to adopt new products, our results show that cultural factors and purchasing power to a greater extend are the reasons behind the rate of acceptance of innovation as we move from one region to another.

Therefore, without a concrete knowledge on culture it would be very difficult for companies to succeed in lunching new products in Cameroon because culture segments Cameroon to a variety of segments in the name of ethnic groups which we have referred to as regions. They Country has two main big segments: Regions of high cultural impact and regions of low cultural impact as indicated by multiple correspondence analysis. Areas of low cultural impact are less receptive to innovation while areas of high cultural impact are strongly receptive to innovation, This is the reason why we have segmented the country into five segments relative to innovation perception ( innovators, early adopters, early minority, late maturity and the laggards) We can, thus, firmly conclude that, enterprises should highly considered language collectivism, and pride in innovation decision making in Cameroon and that new products should first be lunched in the South west, west, north west and littoral respectively and gradually to the east, south, Centre and far north respectively.

In the same light, since people from the south west, west and north are novice and low risk avoidance and that people from the rest of the regions are high risk avoidance and non-novice, new products should first be lunched in areas of low risk avoidance before those of high risk avoidance. WE have, therefore, propose the following managerial implications:

1. Enterprises marketing in Cameroon should first lunch their new products in the South west, West, North west and Littoral regions (novice segment) before East, South, Adamawa, Far north and Centre Regions (non-novice segment) Because the latter are adherent to innovation and will buy only after innovators and early adopters i,e., south west and north west have beared the risk and realise that the product is of high quality that they can try too.

2. In the marketing of new products, language of communication, consumers’ purchasing power, pride and collectivism should be highly taken into consideration.

**COMPETING INTERESTS DISCLAIMER:**

Authors have declared that they have no known competing financial interests OR non-financial interests OR personal relationships that could have appeared to influence the work reported in this paper.

**References**

Abernathy, W., & Clark, K. (1985). Innovation: mapping the winds of creative destruction. *Journal of Research of Policy, 14*(1), 3-22.

Bolle de Bal, M. (1988), « Fondement Culturel de l’efficacite Japonaise » *Revue Française de Gestion*, n° 67, le Discourt Stratégique.

Brown, P., Chua, A., and Mitchell, J. (2002) “The Influence of Cultural Factors on Price Clustering: Evidence From Asia-Pacific Stock Markets”

Chandrasekaran, D. and Gerard, J. (2007), Global Take off of New Products: Culture, Wealth or Vanishing Differences?

[Chen, S.](https://www.emerald.com/insight/search?q=Shih%E2%80%90Chih%20Chen), [Chen, H.](https://www.emerald.com/insight/search?q=Huei%E2%80%90Huang%20Chen) and [Chen, M.](https://www.emerald.com/insight/search?q=Mei%E2%80%90Fang%20Chen) (2009), "Determinants of satisfaction and continuance intention towards self‐service technologies", [*Industrial Management & Data Systems*](https://www.emerald.com/insight/publication/issn/0263-5577), Vol. 109 No. 9, pp. 1248-1263.

Choi, Y. (2010), “Religion, religiosity and South Korean consumer switching behavior”, *Journal of Consumer Behaviour*, 9, P. 157-171.

Davide, A Jermain, K and Torsten, O. S (2018) What 40 years of research reviews about the difference between radical and Disruptive innovation RWTH Aachen University faculty of Business and economics for Harvard Business

Denise, T. O., James, R. O., and Hope, J. S. (2004), ``Exploring the Impact of Culture and Acculturation on Consumer Purchase Decision: Towards A Micro Cultural Perspective,’’ *Accademy of Marketing Science Review*, No. 03.

Degoberto, P. M. (2005), "Ethnomarketing, The Cultural Dimension of Marketing" Paper Accepted for Presentation at the 2004 Accademy of Marketing Science Cultural Perspective of Marketing Conference Held at the Universidad de Las Americas Campus In Puebla, Mexico Pensamiento Y Gestion, No. 18.

Denise, T. O. (2004), "Exploring the Impact of Culture and Acculturation on Consumer Purchase Decision, towards a Microcultural Perspective", *Academy of marketing science review,* No3.

 Douglas, H. (2004), “*Branding as a Cultural Activism, From How Brands Become Icons: The Principle of Cultural Branding*”, Harvard Business school Press

Dwyer, S. (2000), “An Exploratory Examination of the Influence of National Culture on Cross National Product Diffusion”, *Journal of international marketing outline*

Dwyer, S. (2005), ”National Culture Influences Acceptance of Product Innovation”, *Journal of International marketing*Vol. 13, No, 2.

Ekerete, P. P. (2001), “The Effect of Culture on Marketing Strategies of Multinational Firms: A Survey of Selected Multinational Corporations in Nigeria”, Africa Study Monograph.

Günday. (2011), effects of innovation types on firms performance, *international journal of production economics*, [Vol. 133, No. 2](https://www.sciencedirect.com/science/journal/09255273/133/2), pp. 662-676

Hofstede, G. J. (2000),” The Information Age Across Countries: Adaptating Communication Technology and National Culture,” Montpellier” n°01-616-110562c htt: web 29, epnet.com czproxy, Waterfield.murraystate.edu/delivery print save.asp/tb.

James, T. and Tim, O. (1999), “Cultural Theory and Risk: A Review*”, Health, Risk and society,* Vol. 1, No. 1

James, T., and Tim, O. (1999), “Cultural Theory and Risk: A Review”, *Health, Risk and society,* Vol. 1, No. 1

Katharina, J. (2004), “Culture Role in Marketer’s Ethical Decisions Making: An Integrated Theoretical Framework”, *Academy of marketing Science review*

Kelvyn, A. M, Bruce, D. W, Paul D. B (2010), The effect of ethnicity and acculturation on African-American food purchases, *Innovative Marketing*, Volume 6, Issue 4, 2010

Khenfer, J., Roux, E.. et Tafani, E. (2014), « Aide-toi, le ciel t'aidera : quand et comment les croyances religieuses affectent la poursuite du but du consommateur », *ARIMHE/RIMHE : Revue Interdisciplinaire Management, Homme & Entreprise,* 4, n° 13, P. 3-21.

Lamont, M. (2001), “How Blacks use Consomption to Shape their Collective Identity: Evidence from Marketing Specialist,” *Journa*l*of consumer culture,* Vol. 1.

Lawton, L and Parasuraman A. (1980), “The Impact of Marketing Concept on New Product Planning”, *Journal of marketing*, Vol.44.

Leon, G., William, R and Festus, E. (1981), “The Influence of Sub Cultural and Personality Factors on Consumer Acculturation”, *Journal of International business Studies*, Vol, 12, No. 2 Tenth anniversary special issue supplements.

McCracken, G. (2008),” Culture and Consumption: A Theoretical Account of the Structure and Movement of the Cultural Meaning of Consumer Goods, *journal of consumer research* Vol 13 N0 1

Lamont, M. Molnar and Virag, (2000), “Social Categorisation and Group Identification: How African-Americans Shape their Collective Identity through Consumption”, Interdisciplinary Approaches to Demand and it’s Role in Innovation

Nkiendem, F. (2015) Culture and consumer decision making in Cameroonn, ph.D theses, University of Douala

Nkiendem, F. (2017) Advertising as a cultural framework in Cameroon, *international journal of business management,* Vol 5 No 3

Okan, A., Paul, S and Dalgin, H. M. (2012), The Importance of Colour in Product choice Among Young Hispanic Caucasian, and African American Groups in the U.S, *International journal of Business and Social Science* Vol 3 No 6

Rick, S. (2012) Culture and distribution strategies: branch managers Must Turn their Emphasis to Building authentic sales and relationship culture, *xxxxx@novantas.com*

Rick, S. (2012) “Culture and Distribution Strategies: Branch Managers Must Turn their Emphasis to Building Authentic Sales and Relationship Culture”, *xxxxx@novantas.com*

Renolts, R. (1993), "Courting black consumers`, black enterprise, sept.  43. Sales and marketing management (19910 the African-American Market; *Atlanta Journal Constitution*

Rosli et al.(2013), The Impact of Innovation on the Performance of Small and Medium Manufacturing Enterprises: Evidence from Malaysia, *Journal of Innovation Management in Small & Medium Enterprise,* Vol. 2013,Article ID 885666, 16 pages

Rupert, D. (2000), “The Culture of Wine Distribution in Shanghai”, China: A Roq. Ltd.

Sambo, M. (2000), «L’impact des Valeurs Socioculturelles et Traditionnelles sur la Performance des PME au Cameroun», Revue Africaine De Gestion 2, N°.1

Sanidas, E. ( 2004). Technology, technical and organizational innovation, economic and social growth, technology in society, [Vol 26, No](https://www.sciencedirect.com/science/journal/0160791X/26/1), pp. 67-84

Soares, M.A., Farhangmehr, M and Snonam. (2003) “Culture’s Influence on Consumers: Exploratory Behaviour and Risk Taking, Document de trabalho”, Working papers, Management research Unit

[Suku, B. (2005)](https://onlinelibrary.wiley.com/action/doSearch?ContribAuthorStored=Bhaskaran%2C+Suku), Incremental Innovation and Business Performance: Small and Medium‐Size Food Enterprises in a Concentrated Industry Environment, *Journal of small business management, Vol*. 44, No 1, pp. 64-80.

Sundbo, j. & Toivonen, M.( 2011). *User-based Innovation in Services*, Edward Elgar Publishing.

Touzani, M. (2003). « Les Facteurs Culturels Explicatifs De L’innovativité du Consommateur : Une Etude Exploratoire ».

Van, D. L. (1990), “Archaeology, Material Culture and Innovation”, Substance, Vol,.19,No2/3,issue 62/63 :Special Issues :Thought and Innovation.

Verschuere, B., Beddeleem, E., & Verlet, D. (2014). Determinants of innovative behaviour in flemish nonprofit organizations: An empirical research. *Public Management Review*, 16(2), 173-198. doi:10.1080/14719037.2012.757347

Witheside,S and Tilman (2013) Ware friend: the Innovation Case Book- Explorethe World’s Freshest Communication Ideas Available htt://WWW.Warc.Com/Content/Content viewer.aspx

Jonathan, F. Ronald, L., Blount, L. P., and Linsey, C. (2002), “The Role of Ethnic Identity and Self Construal in Cooping Among African American and Seventh Graders: *An Exploratory Analysis of Within-Group Variance’’ Zaff,Adolescence.*

Chen and huang. (2009).Determinants of satisfaction and continuance intention towards self-service technologies, *Industrial Management & Data Systems,* Vol. 109 No. 9, 2009 pp. 1248-1263

kinkel et al. (2004 ). Drivers and antecedents of manufacturing offshoring and back shoring—A German perspective, [*Journal of Purchasing and Supply Management*](https://www.sciencedirect.com/science/journal/14784092), [Volume 15, Issue 3](https://www.sciencedirect.com/science/journal/14784092/15/3), September 2009, Pages 154-165

Black and Lynch. (2005). What’s driving the new economy?; The benefits of workplace innovation, *the economic journal*, Vol 114, Issue 493, Pages F97-F116.

Günday et al.(2011). Effects of innovation types on firm performance, [*International Journal of Production Economics*](https://www.sciencedirect.com/science/journal/09255273)*,* [Volume 133, Issue 2](https://www.sciencedirect.com/science/journal/09255273/133/2), October 2011, Pages 662-676

Sanidas (2004). Technology, technical and organizational innovations, economic and societal growth, *Journal of technology in society*, Vol. 26, Issue 1, January 2004, pages 67-84

Womack et al. (2008). Organizational innovation: The challenge of measuring non-technical innovation in large-scale surveys, *Journal of Technovation*, Vol.28,Issue 10,pp 644-657

1. In this situation we are referring to high uncertainty avoidance cultures. [↑](#footnote-ref-1)