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PERCEPTION, EFFICIENCY, EFFECTIVENESS AND CHALLENGES OF MICRO INSURANCE SERVICES IN NIGERIA

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ABSTRACT

This study evaluates the level of penetration of insurance firms in Nigeria using the Integrated Theoretical Review Design approach. The study similarly evaluates the mitigating factors to macro-insurance actualization in Nigeria and ends by recommending activities, models and frameworks that should be put in place to ensure a higher level of micro-insurance penetration in Nigeria. The study uncovers the fact micro-insurance operation in Nigeria is very fallow judging by the presence of only one stand-alone micro-insurance firm in the whole of Nigeria while other micro-insurance activities are subsumed under various insurance institutions. Various model of micro-insurance implementation was employed and it was discovered that the community – based/mutual micro-insurance model is the most potent as it provides an avenue for the micro-insurance provider to develop products which serve the peculiar needs of each individual community. There is also the added advantage of community participation, which aside from involving the 'clients' or 'policyholders' in the management and operations of the product, also serves as a medium of intimating the rural dwellers on the necessity and functions of insurance. The study recommends that; Insurance firms should ensure efficient distribution channels, an informed price reviews of its services, they should ensure thorough Scrutiny of Micro-Insurance Claims and Applicants, there should be a more flexible payment of premiums, Niche Marketing should be encouraged, Micro-insurance firms should Partner with Other Intermediaries in the Value Chain, There should be adequate Public Awareness, micro-insurance firms should be Re-Insured, NAICOM should embrace Responsive Regulation and there should be Development of Risk Measurement Models and government should back micro-insurance firms by the provision of social Welfare (Sponsorship).

KEYWORDS

Micro-insurance, Penetration, Insurance prospects, intermediation.

Introduction

Households in developing nations like Nigeria are vulnerable to numerous and capricious risk level ranging from natural disasters, death, crop failure, crime, unemployment, fire, violence, disability, catastrophes,and destruction or even illness (Ajemunigbohun, Ademola, &Iyun, 2014). However, low-income households are less capable to prevent and mitigate risks than others, and in the event of shocks, they are also unable to cope with the effects, consequences, and outcomes.Paul (2009) espouses the fact that the expectation of such shocks motivates the vulnerable low-income earners to invest their meagerresources in low-yield activities, so as to safeguard themselves from these shocks and thus depresses the potential income of the poor far below what would be if they were not exposed to these shocks. Hence for these reasons, it is obvious and evident that the need and cost of insurance are inevitable to a large extent(World Bank, 2001).

In light of the aforementioned, Epetimehin&Odunaike (2011) explains that poor individualsin absence of formal insurance avenues often combine their resources from multiple sources to meet expenses for all unanticipated shocks. However, these resources are usually not sufficient to adequately cover their losses and over time they become stressed and over-utilized, less accessibleand more costly, therefore, further reducing the ability of the poor to manage risks. Therefore, an in-depth understanding of this reactive mode is a starting point in thinking about insurance for low-income households.

Insurance over the world has been found to be a major player in the socio-economic development of societies and more recently in strive towards poverty eradication in our societies. The Nigerian insurance sphere is, therefore, no exemption. Akinbola (2012) observes that the need to meet the demand of the poor is becoming increasingly significant as a majority of the population in Nigeria live in the rural areas where access to regular insurance has been limited and hence insurance provisions are at low ebbs. Consequently, the provision of insurance products to low-income earners is gaining steam in the economy's drive to financial inclusion.

The importance of micro-insurance in bailing Nigerian out of its low insurance esteem cannot be overestimated. In recent times, the practice has been receiving tremendous support among operators. With the integration of insurance businesses in Africa, especially as the country makes in-road into African countries, experts have opined that the time to embrace micro-insurance is now. Micro-insurance is safer and its claim is not as high as in the conventional insurance business.Since the provision of any financial services to the poor must start with an understanding of client demand. The deployment of micro-insurance firms serves as an avenue to the large percentage of Nigerian populace living in the informal sector of the economy, where micro-insurance outfits are expected to play in (Olaosebikan, 2013).

Insurance penetration

A major determinant of the performance of the insurance sector in an economy is usually, the level of insurance penetration in the population (Irukwu, 2010). Nigeria's insurance penetration rate as at 2018 stands at 0.4% and only one percent

of Nigerians hold any form of insurance policy (Vanguard, 2018). To reduce the current insurance gap of 99.6 percent, there is a need to develop the micro-insurance business in Nigeria. The ability of the industry to penetrate a large percentage of the society to a large extent is based on the availability of well-tailored insurance policies capable of meeting the needs of the average and low-income earners in the society (Mohammed & Mukhtar, 2012).

Issues of Penetration

Despite the benefits of micro-insurance, global outreach is still limited (Roth, McCord & Liber, 2007). In Nigeria, the low-income target market is generally ignored by the mainstream commercial and social insurance schemes and has not, for a long time, had access to appropriate micro-insurance products (Ime and Ikechukwu, 2017). While over 98% of the population in Nigeria is exposed to many risks in life, with the poor being the most exposed, the overall insurance sector serves 1.3% of the total population (Din and Abu-Bakar, 2010).

Statement of the Problem

Insurance both aggregate and micro-insuranceare marred with fundamental issues such as; high administrative costs, irregular income by the clients, poor product design, weak contract enforcement laws, illiteracy and lack of awareness, besides, the poor lack property ownership that micro-insurance might insure (Ikupolati, 2008). One of the burning issues is the fact that a majority of Nigerians are unenlightened about the concept of insurance, let alone the terms and conditions of an insurance contract and are, therefore, reluctant to pay in advance for the service they may not receive (Cohen &Sebstad, 2006). Reaching the poor people, many of whom are illiterates and making a living in the informal economy is difficult.

There is also a negative attitude to pay in advance for a service they may never receive (Babajide, Adegboye&Omankhanlen, 2015).It thus appears that education on insurance or promoting financial literacy is one of the crucial aspects that are not popular in the Nigerian case and where providers of micro-insurance should engage. Micro-insurance, therefore, is yet to find a common place in Nigeria where the majority of her population live below $2 per day (Anyanwu, 2014).

Additionally, Evelyn and Osifo (2018) emphasize the fact the level of participation in micro-insurance service provision and its awareness to the public by Nigerian insurers over the years is not aggressive and not encouraging- the average Nigerian does not understand what micro-insurance mean, its benefits and how to access its products. Finally, low per capita income of the vast majority of Nigerians results in low-level property ownership and therefore a resultant failure to purchase micro-insurance products.

To provide protection against risks, some low-income earners are engaging in many insecure and informal mitigation exercises such as *Osusu*, *Esusu*, and Corporative. Unfortunately, these have proved inadequate and have instead retarded potential concentration on the micro-insurance institutions. These aforementioned challenges are compounded by the following; No mechanism to systematically reach the informal workers and the workers themselves are largely unorganized in

most cases. The poor may not be able to afford the full cost of running conventional insurance due to insufficient government resources to cover recurring expenses and inadequate infrastructure to provide appropriate services. Also, in Muslim dominated areas they are usually faced with resistance (Yusuf, 2006).

Point of Departure/Objective of the Study

Against this background, this study, therefore, intends to investigate the prospects of micro-insurance in Nigeria. The above therefore makes it imperative that insurance companies by observing current efforts at sustaining micro-insurance firms and developing micro-insurance operational and management models to tap into its juicy potential.

To achieve the objective, the paper is divided into five sections including this introduction. Section two contains the review of related literature, section three presents the methodology used in the study, section four discusses the result and the last section concludes the study and makes cogent recommendations.

Literature Review

Due to a dearth in literature as regards the subject matter, the study employs a review of the theoretical, conceptual and empirical underpinning of the subject matter.

Theoretical Framework

The employed theories are divided into two distinct partitions. The first evaluates the prospects of micro-finance from using the Organization Development Theory and the Team Production Theory while two classical theories are mobilized to elucidate on the factors against the operation and activities of micro-insurance firms.

Team Production Theory: Alchianand Demsetz (1972) developed this theory and emphasized on the fact that any institution's ability to perform its predetermined role is based on the management of that team. In light of Micro-insurance firm, it can be seen that micro-insurance firm emerge as a team effort between financial intermediaries and the insurers, but that the success of this operation depends to a large extent the ability of the financial intermediation (in the place of the micro-insurance firms) to manage the team so that metering problems and attendant shirking could be overcome, by estimating marginal productivity and observing or specifying input behavior. The theory further argues that the firms or institutions like micro-insurance firmsare entities which brings a team together and which would be more productive working together than at arm's length through the market, because of informational problems associated with monitoring of effort.

Organization Development Theory (ODT): Organization developmental theory as developed by Larry (1994) is helpful when examining the problems associated with performance and penetration of the micro-insurance firms. It emphasizes how firms adapt to changes, increasing their effectiveness and making the most of their resources. It argued that growing organizations move through four relatively calm periods of evolution, each of which ends with a period of crisis and revolution

(Diagnosis, Action planning, intervention, and evaluation). Each evolutionary period was characterized by the dominant management style used to achieve growth, while each revolutionary period was characterized by the dominant management problem that must be solved before growth continues. They argued that growth involved four steps namely growth through direction, delegation, coordination and collaboration (Alando, 2014).

The above shows that micro-insurance firms are not to be written off as they are just at the initial stage of development. All that is required is the management of activities and consistent application of innovative and sustainable solutions. The theory is not certain what the next revolution would be, but anticipate that it would center on the 'psychological saturation' of the micro-insurance institutionswhichgrows emotionally and exhausted by the intensity of teamwork and the heavy pressure for innovative solutions. The theory recommends that, for firms like micro-insurance firms to overcome and even avoid various systemic and environmental crises, managers could attempt to move through the evolutionary periods more consistently (Young and Ghoshal, 2016).

Information asymmetry

Rothschild and Stiglitz (1978) bring to fore the inefficient, crippling and negative influence of information asymmetry in an economy. Micro insurers strive to simplify products and their pricing, a trend that runs counter to the customization and complex underwriting of insurance in richer markets. While necessary to reduce costs and reach a wide scale, this trend opens micro-insurance markets to problems of information asymmetries (Bauchet, Damon & Hunter, 2016). This theory is applicable to micro-insurance institutions in light of the uninformed stance of the poor populace who are not aware of available micro-insurance services. The notion of asymmetric information and its impact on influencing market microstructure is closely related to agency theory and the economic incentives conflicts that can arise between different contracting constituents (e.g. shareholders, policyholders, and managers) due to the increased separation of ownership from control as organizations grow in size. Rothschild and Stiglitz (1978) demonstrated that adverse selection—that is, the ability of insured agents (policyholders) to withhold private information on their risk profile ex-ante in order to secure ex-post economic advantages from insurance providers (e.g. through higher than anticipated claims)—is all-pervasive in insurance transactions. Moral hazard, on the other hand, arises where the outcome of the insurance contract can be influenced by the (unobserved) actions of the insured after an insurance policy has been taken out.

Agency costs

Agency costs as explained by Shouxi (2007) buttresses on the fact that there existdirect and indirect costs incurred in ensuring that agents (i.e. managers) and other contracting constituents (e.g. policyholders) act in the best economic interests of principals (i.e. owners). Arrow reports that because of agency and other costs associated with information asymmetries, insurance markets are imperfect necessitating prospective solutions, such as contractual covenants and organizational structures, to reduce such business costs.

Micro-Insurance markets comprise different ownership structures with the two most common forms being the stock and mutual forms of organization. However, in many jurisdictions (including Nigeria) variations in the type of ownership structure can also exist within the stock form of organization. For example, equity can be held by a few large (majority) investors, disparate individual investors and/or by managerial-owners. He and Sommer (2010) further contend that owner-manager-policyholder (agency) conflicts are most likely to be acute when widely held ownership rights predominate.

Smith (1989) further classify the ownership structure of common stock insurance companies into four main groups, namely: "association-owned stock firms", "mutual-owned stock firms", "closely-held stock firms", and "widely-held stock firms". They argue that "mutual-owned" stock firms are similar to conventional mutual insurance companies because the shareholders are also the policyholders of the association or the parent mutual. In large (particularly publicly listed) closely-held stock firms, there is often a merger of the manager and shareholder functions which helps to substantially reduce owner-manager conflicts but which might come at a cost for policyholders (e.g. as a result of excessive risk-taking). Closely-held stock firms can be further classified into "closely-held stock firms owned by managers" or "closely-held stock firms owned by other investors" depending on the amount of equity held by insiders (managers). However, for widely held stock insurance firms there is usually a clear separation of shareholder-manager-policyholder functions. He and Sommer (2010) contend that if left unchecked by contractual control and incentive alignment mechanisms, such a structure could increase agency problems (costs) in the firm.

Conceptual Framework

What is micro-insurance?

Micro-insurance is a financial arrangement to protect low-income people against specific perils in exchange for regular premium payments proportionate to the likelihood and cost of the risk involved (Churchill, 2006). Micro-insurance is a means of protecting the businesses, livelihood, health, and life of low-income households usually resident in rural areas, (Dercon, Kirchberger, Gunning &Platteau, 2008). In its simplest term, micro-insurance is defined as insurance cover provided to the low-income population. The international labor organization (ILO), 2008 as seen in Supiot (2010), explained micro-insurance as insurance cover targeted mainly towards the low-income poor population and tailored to meet their needs, income level and risks. These target populationsis mainly excluded from the commercial insurance policies available in the mainstream economy. Yoseph (2010) submitted that micro-insurance can also be designed and distributed through conventional insurance companies, microfinance institutions, labor unions, NGOs, and large micro-credit institutions.

2.2.2 History of Micro-insurance

Micro-insurance is not a new invention. The industrial life assurance sold at factory gates in American cities in the early 1900s made the then Metropolitan life insurance company, the largest industrial life assurance as the forerunner of what today is known as commercial micro-insurance. It was simply a response to a market demand managed in a manner that made the products appropriate for the market. The delivery channels, agents at each factory gates, were specific to this market (Suarez &Linnerooth-Bayer, 2010). The premiums reflected the particular risks of the factory worker market. Coverage responded to the worker's specific needs, premium collection on payday as the workers exited the factories were efficient. In general, industrial life assurance was then a response to a market that provided access to quality insurance products for low-income workers and access to a large market for the insurers.

Keying into the projections of the micro-insurance network, the International Labor Organization's micro-insurance innovation facility, which estimates that at least a billion low-income earners would be covered by micro-insurance globally in the next ten years, Nigeria has joined the nations that are determined to protect its poor and vulnerable by means of micro-insurance (Acha&Ukpong, 2012).

Empirical Frameworks

Adeyemo, Odetola, and Yusuf (2017) examine the determinants of demand for insurance from the standpoint of the rural-based household non-farm enterprises (RHNFE). This study made use of the household non-farm enterprise data from the LSMS- General Household Survey of 2010/2011. Demand for insurance was measured as the monthly expenditure on insurance by the RHNFE. The empirical findings indicate that RHNFE were mainly informal in nature with low-level investment, and low labor requirement. Consequently, there is relatively high production/transactions costs relative to revenue. Premium paid for insurance was found to be very low and determined by the value placed on the system, access to the market for operation as well as the scope of operation of the businesses. Access to market infrastructure and opportunities for standardizing products area recommended in order for the RNFE to take advantage of insurance targeted towards them.

Ime and Ikechukwu (2017) highlight the potential contributions of micro-insurance business to the growth and development of the Nigerian economy. It noted the low levels of insurance coverage where only 1% of the adult population is insured and insurance penetration of 0.68%. The contribution of insurance to GDP is put at a paltry 0.72% and poverty is so high that about 70% of the population live on less than $1.00 a day. The paper, therefore, examines the fundamental issues that bedevil the Nigerian economy and the insurance industry and the impact of the issues on the country's economy. The inadequacy of data and relative newness of the micro-insurance arrangement encouraged documentary review in this study, with extensive employment of secondary sources of information. Using a descriptive research design and employing tables, graphs, charts, and percentages to analyze the data, the study shows that development of micro-insurance business in Nigeria has the

potential to undo some of the country's economic woes, and ensure more insurance penetration and financial inclusion. It shows there are developmental gaps in the operation of insurance business in Nigeria which micro-insurance business arrangement can effectively fill. The study, therefore, recommends, amongst other things, extensive information dissemination about micro-insurance products, development of tailored micro-insurance products for the target market of poor and low-income earners and the employment of appropriate channels, like mobile network operators, market and farming associations etc, as payment platforms to disseminate information and collect premiums.

Mukhtar (2016) investigates the prospects of micro-insurance in the rural areas of Nigeria, while Sokoto State was used as a case study. The data used in this study is cross-sectional and was collected from a sample of 500 respondents, who were contacted through a structured questionnaire. The data collected was analyzed using logit regression model and the study revealed that income level, educational attainment, and property ownership, as well as the availability of infrastructural facilities in the rural areas, have a positive influence on the prospects of Micro-Insurance in the rural areas of Nigeria. The study recommended that the income level of the rural dwellers should be taken into consideration while setting premium, efforts to provide, at least basic education in the areas, should be intensified. It is also suggested that serious mobilization and sensitization programs should precede the introduction of Micro-Insurance.

Njuguna &Arunga (2013) evaluates the activities of micro-insurance firms in Kenya. The study discusses the strategies that Kenyan insurance companies are using to mitigate the risks and discerns creative strategies to minimize them. Purposive sampling was used to select 8 companies that offer micro-insurance products in Kenya, from which 49 key informants responded to the survey. The visual binning approach was used to describe the data, while statistical tests of correlation and association were carried out by use of Pearson Correlations and Chi-Square tests. The study singled out the most ubiquitous risks facing micro-insurance providers as; diseconomies of scale resulting from low penetration, limited distribution channels, correlation risks, and rigid regulatory framework. The strategies being used to counter the risks include; use of technology to lower administration costs, control of moral hazard and adverse selection, thorough scrutiny of claims, development of risk measurement models and continuous monitoring of the clients. Micro-insurance service providers are advised to invest in research and actuarial services to improve pricing of the products, develop innovative distribution channels, adopt technology conscious partnerships and devise flexible premium payment terms to enhance control of micro-insurance risks.

Mohammed and Mukhtar (2012) investigate the prospects of micro-insurance in the rural areas of Nigeria, while Kebbi State was used as a case study. The data used in this study is cross-sectional and was collected from a sample of 190 respondents, who were contacted through a structured questionnaire. The data collected was analyzed using Logit regression model and the study revealed that income level, educational attainment, and property ownership as well as the availability of infrastructural facilities in the rural areas, the prospects of Micro-Insurance in the rural areas of Nigeria. The study recommended that income level of the rural

dwellers should be taken into consideration while setting premium, efforts to provide, at least basic education in the areas, should be intensified it is also suggested that serious mobilization and sensitization should precede the introduction of Micro-Insurance.

Mukhtar (2013) undertakes advocacy of the activities of micro-insurance firms in Nigeria. The study employs a descriptive study of the activities of the Nigerian micro-insurance firm towards alleviating poverty in Nigeria. The study uncovers that; there is very minimal hope for conventional insurance services to stamp their authority in the alleviation of the severity of poverty. Micro-insurance however, can break the cycle of poverty" by providing low-income households, business and farmers with access to post-disaster liquidity, thus protect their livelihoods and providing for reconstruction. Therefore, insured households and firms are more creditworthy; these kinds of insurance can also promote investments in productive assets and higher risk yield crops.

Dror, Hossain, Majumdar, Koehlmoos, John, & Panda (2016) evaluates the factors influencing micro-insurance firms such as community-based health insurance (CBHI) schemes in low- and middle-income countries (LMIC). The study employs a comprehensive search of academic and gray literature using the various national database. The study's meta-analysis suggests that enrolments in CBHI were positively associated with household income, education and age of the household head (HHH), household size, female-headed household, married HHH and chronic illness episodes in the household. This, therefore, shows that many factors influence the micro-financing outfit and are similarly being influenced by the micro-insurance activities as carried out in various countries.

Ajemunigbohun, Ademola, &Iyun (2014) evaluate the awareness and accessibility of micro-insurance products with selected insurance firms a research ground for empirical investigation. Essentially, two hypotheses were tested. They are to determine whether: (i) aggressive awareness drive towards micro-insurance products has not been genuinely encouraged among insurance companies in Nigeria; and (ii) the accessibility of micro-insurance products created by insurance companies have not significantly reflected in the lives of themany insuring populace. The survey research design for this study was exploratory in nature. The study sample consisted of sixty (60) respondents from whom data were gathered through the use of an interview technique. A Kolmogorov-Smirnov technique was used for data analysis. The findings from the study revealed that awareness creation towards micro-insurance products has been genuinely encouraged among insurance companies, while the accessibility has not yet reflected significantly in the lives of many insuring populace. The study thus recommends that adequate awareness, education and enlightenment programmes be introduced especially for low-income earners.

Acha and Ukpong (2012) examine the concept of micro-insurance and its applicability in Nigeria. Micro-finance banks, which presently provide mainly micro-credit and savings products targeted at the low-income group, are considered an appropriate facility for the micro-insurance product. The Integrated Theoretical Review Design (ITRD) with a focus on archival review and document analysis is

adopted for the study. This review brings to limelight the fact that micro-insurance is relatively new and only remotely practiced in Nigeria. One of the reasons for this is that Micro-finance Institutions are short of appropriate models on which to present their offer. To this end, this study proposes the Community-based/mutual micro-insurance model for Nigeria as an effective way of reaching the rural and semi-urban population who mostly fall under the low-income group.

Anja, Doubell, Herman& Grieve (2012) spelled out the significance of micro-insurance in the Kenyan market by stating the development and penetration rate of micro-insurance to be 3% of the GDP while life insurance accounted for 1% out of 16 million insurable Kenyans, 12 million were stated to be in the micro-insurance sector. This signified the potential impact of the micro products in the development of insurance and its penetration within Kenya.

Empirical studies (Brown & Churchill, 2000; Siegel, Alwang&Canagarajah, 2001; Patel, 2002; Fischer & Qureshi, 2006; Bhattamishra& Barrett, 2008; Cummins &Mahul, 2009a; Arun & Steiner, 2008; World Bank, 2011) have dwelt on micro-insurance in the context of social protection, other studies (Brown &MCCord, 2000; Cohen &Sebstad, 2005; Garand & Wipf, 2006; McCord & Roth, 2006; Churchill, 2007; AKI, 2008; Ngahu, 2009) have investigated the nature of the uninsured markets in various parts of the world, Butt (2010) has conducted case studies of various countries, Skees et al, (1999); Prud'Homme&Traolle (2007); Chandani (2009), Cummins &Mahul (2009b); Mbogo (2009); Morelli, et al (2010) studied the various models that are useful in implementing micro-insurance products. Other studies such as McCord (2001); Pierker et al, (2001) and Gitonga, (2009) have been devoted to the provision of micro-health insurance while Weber (2002), Maleika and Kuriakose (2008); Zingales (2009) and Makove (2011) have addressed the need for government support in providing micro-insurance products. Another theme widely addressed by Rodriguez and Miranda (2004); Roth et al (2005); Roth et al (2007) and Tremblay, Quiron, Langlois, and Klutze (2006) relate to the good practices in micro-insurance provision. This study focuses on an area that has not been expressly addressed by other studies namely; risk management in the context of micro-insurance provision.

Methodology

Research Design: The study employs the Integrated Theoretical Review Design (ITRD) with a focus on archival review and document analysis is adopted for the study. The study relies on qualitative evaluation in light of the absence of an adequate quantitative basis for the study. The researchers also reviewed documents that were obtained from The National Insurance Commission (NAICOM) on micro-Insurance as presented in the appendix. This data was used to strengthen the arguments that were drawn from the primary data which at times is subjective based on the respondents' predisposition at the time of data collection.

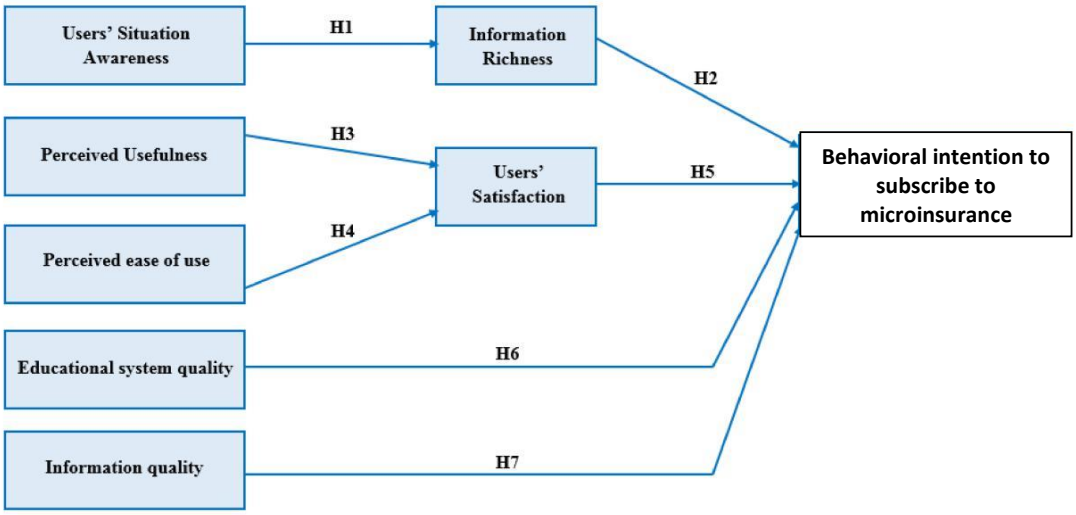
Population and Sampling Design: The population of the study dominates existing insurance firms involved in micro-insurance and the relatively new standalone firm GOXI Micro-insurance Company Limited which began operations February 2020.

Reliability and Validity of the Measuring Instruments: The content and criterion-related validity were established on the basis of the literature review, utilization of the micro-insurance act and discussion with key informants in the Nigerian micro-insurance industry sphere.

Data Analysis: In light of the Integrated Theoretical Review Design. A deductive analysis based on documents reviewed is presented in the next section.

Methodology and Research Model

A research model, as shown in Figure 1, was developed to examine users' intention to accept and subscribe to micro-insurance with seven hypothesised relationships. This research model includes three important dimensions of PC towards IR, which enabled us to explore the effectiveness of these dimensions on the newly formed conceptual model. The level of IR may influence the acceptance and subscription to micro-insurance differently. The ODT constructs, along with the educational quality system and information system, add new values in assessing the effectiveness of the acceptance and subscription to micro-insurance in relation to IR. Finally, the factor of users' satisfaction can contribute more effectively to the conceptual model and improve users' intention accept and subscribe to micro-insurance.



Perception and Information Richness

PC addresses the understanding of what is going on and what might happen next. It has been defined as the ability to develop an accurate internal representation of events in the environment that may lead to successful decision-making. The failure to recognise the importance of PC in a specific environment may lead to conceptual confusion and a degree of conceptual tension. Similarly, IR is affected by the environment in the sense that it has a strong impact on individuals' behaviour. When the provided information is sufficient, it can act as a tool to enhance an individual's experience, allowing the development of trust. Accurate IR may lead to the creation of a better teaching–learning environment and increase trust in the technology.

Information content richness has a close relationship with the quality of the received in-formation with respect to certain aspects, including clarity, relevance, sufficiency, accuracy, timeliness and simplicity. There are various forms that can cover users' choices. IR is considered a dominant, effective and influential aspect when it comes to micro-insurance subscription, and it has a close relationship with users' personalities, trust and IR is related to PC, which is a key factor to understanding how to decide in new situations. PC is governed by the three dimensions of perception, comprehension and projection. Perception is the first important step in formulating a perfect picture of a situation. It is a fundamental aspect, without which it would be impossible to get a clear picture of the importance of the perceived information. Projection can be defined as the ability to predict future events, which enhances the capability to get a better understanding of a new situation. The experience that is accumulated in the process can deeply enhance the forecast of future events.

PC embraces another dimension that goes beyond perception to help users combine, interpret and store information. The perception of information can act as a first step, but the need for comprehending the information is crucial. This comprehension has to do with the integration of the pieces of information based on the participants' own goals. Projection can be defined as the ability to predict future events, which enhances the capability to better understand a new situation.

This study has created a connection between the effectiveness of IR and the three dimensions of PC, which are perception, comprehension and projection. Whenever the richness in information is evaluated by users to be clear, comprehendible and easily perceptible, the micro-insurance institution orientation platform is considered an effective and highly preferred tool. According to the previous assumptions, the following hypotheses are proposed:

Hypothesis 1 (H_1). PC positively affects the IR in the acceptance and subscription to micro-insurance.

Hypothesis 2 (H_2). The IR positively affects the acceptance and subscription to micro-insurance.

User Satisfaction and ODT Constructs

User satisfaction is closely related to the users' attitude towards the intention to use technology. Users' satisfaction refers to the impact that an application of technology has on users' attitudes when they are using the technology. Furthermore, user satisfaction is observed as the type of feeling or pleasure which appears as an outcome of using technology due to its benefits. A similar definition is presented by Dalvi-Esfahani et al. who defines user satisfaction as a subjective evaluation that can be pleasant or unpleasant, proposing that the evaluation appears due to the use of certain technology. Satisfaction has a close relationship with individual attitude, organisation purposes and social consequences. Users' satisfaction is useful in evaluating the acceptance and subscription to micro-insurance.

On the other hand, perceived ease of use is defined as the degree of effort that users may reflect in using a piece of technology. Whenever the technology is evaluated as

effort-less, it implies a preference for it, and the intention to use it is evident. Similarly, perceived usefulness is defined as the degree of usefulness that a person derives from a specific system that has a direct effect on his or her performance. Previously, Kaufhold et al. stated clearly that usefulness is the most powerful predictive variable in evaluating information technology usage. The ODT has been used extensively by many studies where usefulness is the key factor in measuring users' intention to use new technology. Both the perceived ease of use and the perceived usefulness are considered influential elements in deterring the effectiveness of technology, and they have a direct effect on users' level of satisfaction. These two constructs are investigated by prior studies to reflect different purposes. For in-stance, Halimeh et al., and (Krejcie&Morgan) considerODT constructs as variables that are used to identify the relation between e-wallet and mobile banking with customers' perception. Thus, the following hypotheses are formulated:

Hypothesis 3 (H_3). The intention to accept and subscribe to micro-insurance is positively affected by the users' perception of ease of use.

Hypothesis 4 (H_4). The intention to accept and subscribe to micro-insurance is positively affected by the users' perception of usefulness.

Hypothesis 5 (H5). The intention to accept and subscribe to micro-insurance is positively affected by users' satisfaction.

Educational System Quality and Information Quality

The educational system entails the use of a particular system due to its easiness, content and enjoyable features. This implies that whenever users evaluate a system, such as a difficulty, it entails that the system will not be functionally acceptable. Micro-insurance subscriptionis affected by the quality of the education system since it enhances the understanding of the course in an educational atmosphere. The concept of the educational system has been expanded to include ways of developing educational profiles, taking into consideration the benefits and effects of developing and implementing new features. The education quality embraces not only the quality of the system itself functionally, but the quality of the information academically.

Furthermore, information quality is defined as the quality of the content of the in-formation system, including factors such as the intelligibility, objectivity, sufficiency and relevance of the content. This factor can effectively and exceptionally affect the orientation learning atmosphere. Whenever the quality is high, respondents are in favour of using it, leading to positive evaluation by both respondents and teachers. This is due to the fact that the information is evaluated as sufficient and consistent. The information quality has a relation with the measurement of the excellence of the communication knowledge in content sources assessment. Hence, it appears that both the education quality system and information quality can affect the future of micro-insurance institution orientation platforms. Therefore, it is hypothesised that:

Hypothesis 6 (H_6). The intention to accept and subscribe to micro-insurance is positively affected by the education quality system.

Hypothesis 7 (H_7). The intention to accept and subscribe to micro-insurance is positively affected by the information quality.

Table 2. Measurement Items.

Constructs	Items	Instrument
Behavioural intention to use micro-insurance institution orientation platforms after the pandemic	BI1	I am keen on continuously checking the orientation learning platform.
	BI2	Overall, I am ready to accept and subscribe to micro-insurance in the future.
Educational system quality	ESQ1	The micro-insurance institution is collaborative and active. Therefore, I will use it even after the pandemic.
	ESQ2	The micro-insurance institution has a variety of learning styles. Therefore, I will use it even after the pandemic.
	ESQ3	The micro-insurance institution has an interactive feature. Therefore, I will use it even after the pandemic.
Information quality	IQ1	The micro-insurance institution provides me with up-to-date information. Therefore, I will use it even .
	IQ2	The micro-insurance institution provides me with the content I need at the right time. Therefore, I will use it even.
	IQ3	The micro-insurance institution provides me with information that is easy to understand. Therefore, I will use it even.
	IQ4	The micro-insurance institution provides me with organised content/information. Therefore, I will use it.
Information richness	IR1	My full understanding of the micro-insurance institution orientation platform urges me to keep using it.
	IR2	Using an micro-insurance institution orientation platform will enhance my awareness of learning objectives and outcomes.
	IR3	My perception of new material is better if I continue the acceptance and subscription to micro-insurance

		alongside face-to-face classes .
Perceived ease of use	PEOU1	I will continue the acceptance and subscription to micro-insurance after the pandemic because it is easy to use them.
	PEOU2	In my opinion, using an micro-insurance institution orientation after the pandemic will be free of effort.
	PEOU3	Overall, using an orientation learning platform will be easy even after the start of the face-to-face classes.
Users' perception	USA1	My clear vision of the material offered via orientation platforms helps me develop my learning skills.
	USA2	Using an micro-insurance institution orientation platform will assist my persuasion and argumentation skills.
	USA3	My comprehension of new courses will be easier if orientation learning is still effective.
Perceived usefulness	PU1	I will continue the acceptance and subscription to micro-insurance after the pandemic because they are useful.
	PU2	I will continue the acceptance and subscription to micro-insurance after the pandemic because they help me complete different assignments and homework.
	PU3	I will continue the acceptance and subscription to micro-insurance after the pandemic because they help in understanding my daily classes.
Users' satisfaction	US1	I will continue the acceptance and subscription to micro-insurance after the pandemic because they satisfy my needs.
	US2	I will continue the acceptance and subscription to micro-insurance after the pandemic because they resolve my queries when I miss important information in face-to-face classes.
	US3	I will continue the acceptance and subscription to micro-insurance after the pandemic because it fits my plans.

Survey Structure

The questionnaire survey was given to the respondents. The survey contained three different sections.In the first section, the participant's data are recorded.In the second section, two items ask questions related to micro-insurance subscription.In the third section, there are twenty-two items related to educational system quality, information quality, information richness, perceived ease of use, users' perception, perceived usefulness and users' satisfaction. The five-point Likert scale has been used to measure the 24 items. The scale includes strongly disagree (1), disagree (2), neutral (3), agree (4) and strongly agree (5).

Pilot Study of the Questionnaire

A pilot study was carried out to check the reliability of the questionnaire item. As part of this pilot research, 100 respondents were randomly selected from the decided population. The entire sample size used in the research for the assessment should be 10%, and keeping this in mind, the sample size was 100 respondents. The standard of research was maintained. The findings of the pilot study have been assessed by applying the Cronbach's Alpha (CA) test. It helps recognise the internal reliability through the IBM SPSS Statistics ver. 23 (IBM). Hence, for all the measurement items, the conclusions presented were acceptable. The acceptable reliability coefficient is 0.70 when the stated social science research studies are considered. Table 3 states the Cronbach alpha values for the five mentioned measurement scales.

Table 3. Cronbach's alpha values for the pilot study (CA - 0.70).

Constructs	CA
BI	0.760
ESQ	0.785
IQ	0.878
IR	0.817
PEOU	0.881
UPC	0.889
PU	0.825
US	0.816

Note: BI is behavioural intention to accept and subscribe to micro-insurance ; ESQ is educational system quality; IQ is information quality; IR is information richness; PEOU is perceived ease of use; UPC is users' perception; PU is perceived usefulness; US is users' satisfaction.

Results And Discussions

Data Collection

Respondents studying in UAE universities were sent orientation surveys to gather data. The period chosen was from 17 August 2022 to 28 September 2022.One hundred bottom of form (100) questionnaires were randomly distributed by the researchers. Seventy-seven (77) questionnaires were responded to, indicating a response rate of 77%. Due to missing values, 23 filled questionnaires had to be rejected. With valid responses for 77, the sample size was maintained as appropriate. For the sample size, the analysis using the structural equation modelling is applicable, and this is much needed for hypothesis confirmation. Moreover, present theories have been used to establish the hypotheses; yet, they have been included within the e-learning context. The measurement model has been evaluated by the researchers through the application of SEM (SmartPLS Version 3.2.7). Advanced treatment has been carried out using the final path model.

Study Instrument

In the current research, the hypothesis has been validated using a survey instrument.Eleven constructs have been measured in the questionnaire. There are 24 items that are included in the survey. In Table 2, one can observe the constructs and their source. The applicability of this research study has been enhanced by altering and adjusting earlier research questions.

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items. The scale includes strongly disagree (1), disagree(2), neutral (3), agree (4) and strongly agree (5).

Personal/Demographic Information

In Table 4, the personal/demographic information has been assessed and presented. The male-to-female ratio has been maintained at 40:60. Moreover, 33% of the respondents were above the age of 29 years, and 67% of the respondents were between 18 and 29 years in age. An educated background with a university degree was associated with most respondents. In the sample, 65% of the respondents attained a bachelors' degree, 23% had a masters' degree and 12% had a doctorate degree. When respondent access is easy and they volunteer willingly, then the purposive sampling approach should be implemented. The research sample was developed using respondents from various colleges. The age of these respondents is different and their programs and levels all vary. Furthermore, the IBM SPSS Statistics ver. 23 was applied to measure the demographic data. Table 4 indicates thorough respondent demographic data.

Table 4. Demographic data of the respondents.

Criteria	Factor	Frequency	Percentage
Gender	Female	46	60%
	Male	31	40%
Age	Between 18 and 29	52	67%
	Between 30 and 39	14	18%
	Between 40 and 49	8	11%
	Between 50 and 59	3	4%
Education qualification	Bachelors'	50	65%
	Masters'	18	23%
	Doctorate	10	12%

By applying the SmartPLS V.3.2.7 software and the partial least squares–structural equation modelling (PLS-SEM), the research study data analysis was carried out. The collected data were assessed through the application of an assessment approach that has two steps: a structural model and a measurement model. Within the current research, the PLS-SEM has been applied for two reasons.

At first, the most appropriate choice is the PLS-SEM since the current research requires for the existing theory to be built. Second, the PLS-SEM can be applied to efficiently manage the exploratory research attaining complex models. Third, the PLS-SEM does not divide the entire model into fragments but assesses it as a whole. Fourth, the PLS-SEM carries out a concurrent analysis for the measurement and structural model. Hence, the calculations attained are precise.

Convergent Validity

When the measurement model is assessed, the validity, which includes convergent and discriminant validity, and construct reliability, which includes composite reliability (CR), Dijkstra–Henseler's (PA) and CA, should be taken into account. According to Table 5, construct reliability can be determined using CA with values between 0.730 and 0.833. The threshold value is 0.7, and the mentioned figures are higher. Table 5 also indicates that the CR attains values between 0.770 and 0.904, and these are also higher than 0.7, which is the recommended value. By applying the Dijkstra–Henseler's rho (pA) reliability coefficient, researchers must assess as well as report the construct reliability. Like CR and CA, values of 0.70 or higher should be indicated by the reliability coefficient pA as part of the exploratory research. If the research is expected to be more advanced, then values should be over 0.80 or 0.90. It has also been observed in Table 5 that for each measurement construct, the reliability coefficient pA must be over 0.70. Based on the mentioned results, there is confirmation for construct reliability, and towards the end, the constructs are assumed to be free of error in a sufficient manner. Convergent validity should be measured by testing the average variance extracted (AVE) and factor loading. The findings in Table 4 indicate that the suggested value of 0.7 was always lower than all factor-loading values. Furthermore, according to Table 5, values between 0.540 and 0.758 were produced by AVE, and these are higher than the 0.5 threshold value. Keeping in mind the future results, convergent validity can be attained successfully for all constructs.

Table 5. Convergent validity results that assure acceptable values (factor loading, CA, CR0.70 and AVE > 0.5).

Constructs	Items	Factor Loading	CA	CR	PA	AVE
Behavioural intention to use orientation platforms	BI1	0.822	0.829	0.897	0.829	0.745
	BI1	0.729				
Educational system quality	ESQ1	0.754	0.765	0.844	0.779	0.679
	ESQ2	0.733				
	ESQ3	0.855				
	IQ1	0.848				

Information quality	IQ2	0.777	0.778	0.870	0.788	0.692
	IQ3	0.910				
Information richness	IR1	0.859	0.777	0.770	0.653	0.540
	IR2	0.904				
	IR3	0.891				
Perceived ease of use	PEOU1	0.874	0.803	0.884	0.802	0.717
	PEOU2	0.853				
	PEOU3	0.822				
Users' perception	USA1	0.771	0.730	0.850	0.738	0.654
	USA2	0.828				
	USA3	0.890				
Perceived usefulness	PU1	0.781	0.761	0.866	0.770	0.609
	PU2	0.858				
	PU3	0.864				
Users' satisfaction	US1	0.880	0.833	0.904	0.846	0.758
	US2	0.836				
	US3	0.871				

Discriminant Validity

Measurement of two criteria, Fornell–Larcker and the Heterotrait–Monotrait ratio (HTMT), has been recommended for the discriminant validity measurement. The outcomes of Table 6 indicate that the requirements of the Fornell–Larcker condition are confirmed since the AVEs and their square roots are higher than the rest of the correlation constructs.

Table 6. Fornell–Larcker Scale.

	BI	**ESQ**	**IQ**	**IR**	**PEOU**	**UPC**	**PU**	**US**
BI	**0.798**							
ESQ	0.450	**0.872**						
IQ	0.692	0.363	**0.885**					
IR	0.626	0.538	0.296	**0.880**				
PEOU	0.505	0.065	0.237	0.601	**0.856**			
UPC	0.444	0.500	0.573	0.592	0.451	**0.817**		

PU	0.458	0.583	0.553	0.476	0.513	0.307	**0.851**	
US	0.446	0.565	0.641	0.616	0.604	0.391	0.521	**0.844**

Note: BI is behavioural intention to accept and subscribe to micro-insurance ; ESQ is educational system quality; IQ is information quality; IR is information richness; PEOU is perceived ease of use; UPC is users' perception; PU is perceived usefulness; US is users' satisfaction.

Table 7 indicates the results for the HTMT ratio and shows that, for each construct value, the 0.85 threshold value stays ahead. Therefore, the HTMT ratio is created. Based on the mentioned findings, the discriminant validity is stated. Keeping in mind the results of the analysis, the measurement model assessment did not have any concerns in terms of reliability and validity. Hence, it is possible to assess the structural model by applying the collected data.

Table 7. Heterotrait–Monotrait Ratio (HTMT).

	BI	**ESQ**	**IQ**	**IR**	**PEOU**	**UPC**	**PU**	**US**
BI								
ESQ	0.232							
IQ	0.202	0.517						
IR	0.260	0.681	0.611					
PEOU	0.506	0.633	0.609	0.333				
UPC	0.243	0.392	0.111	0.144	0.255			
PU	0.501	0.658	0.753	0.511	0.721	0.512		
US	0.207	0.672	0.511	0.419	0.290	0.463	0.721	

Note: BI is behavioural intention to accept and subscribe to micro-insurance ; ESQ is educational system quality; IQ is information quality; IR is information richness; PEOU is perceived ease of use; UPC is users' perception; PU is perceived usefulness; US is users' satisfaction.

Model Fit

The fit measures offered by SmartPLS are standard root mean square residual (SRMR), exact fit criteria, d_ULS, d_G, Chi-Square, NFI and RMS_theta, which show the PLS-SEM model fit. The difference present amongst the observed correlations and model implied correlation matrix is denoted by SRMR, and the good model fit measures are values lower than 0.08. A good model fit is the NFI values that are over 0.90. The ratio of the proposed model Chi2 value to the benchmark or null model is the NFI. The NFI and parameters have a positive association, which is why the NFI is not

considered to be a model fit indicator. The empirical covariance matrix and covariance matrix discrepancy can be observed in two metrics, which are squared Euclidean distance, d_ULS, and the geodesic distance d_G. This has been implied using the composite factor model. For the reflective model, only the RMS theta is applied, and the correlation degree of the outer model residuals is evaluated. The PLS-SEM model is more efficient when the RMS theta value is closer to zero, and it would be a good fit if the value is lower than 0.12. There would be a lack of fit for anything else. With the help of the saturated model, the correlation amongst the constructs is assessed, and the model structure and total effects are observed by the estimated model.
According to Table 8, 0.069 is the RMS_theta value, and it shows that the goodness-of-fit for the PLS-SEM model is appropriate enough to indicate the validity of the global PLS model.

Table 8. Model fit indicators.

	Complete Model	
	Saturated Model	**Estimated Model**
SRMR	0.066	0.066
d_ULS	0.770	1.538
d_G	0.503	0.503
Chi-Square	477.558	477.558
NFI	0.685	0.685
Rms Theta	0.069	

Hypotheses Testing Using PLS-SEM

Through Smart PLS, it was possible to use the SEM, and maximum likelihood estimation was present to enable the recognition of the interdependence of the structural model and several theoretical constructs. Similarly, it was possible to assess the proposed hypotheses. Figure 2 and Table 9 indicate that there is moderate predictive power in the model, which means that 55.7% is the variance percentage for the behavioural intention to accept and subscribe to micro-insurance.

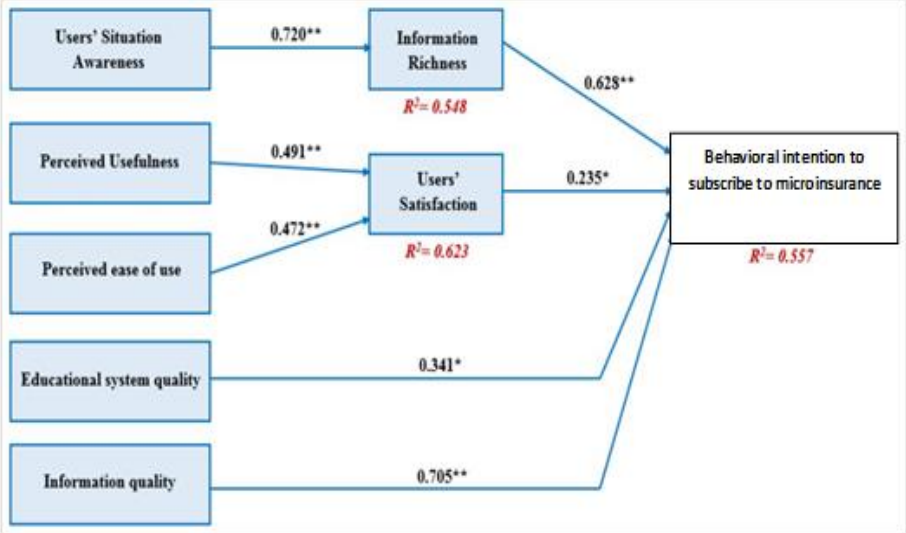

Figure 2. Path coefficient of the model (significant at ** p0.01, * p < 0.05).

Table 9. R^2 of the endogenous latent variables.

Constructs	R^2	Results
BI	0.557	Moderate
IR	0.548	Moderate
US	0.623	Moderate

Note: BI is behavioural intention to accept and subscribe to micro-insurance; information richness; users' satisfaction.

For each stated hypothesis, the beta (*b*) values, t-values and p-values are stated in Table 10, and these are extracted using the PLS-SEM technique. It has been observed that all the hypotheses have been supported by the researchers. Considering the data assessment, empirical data support the hypotheses H1, H2, H3, H4, H5, H6 and H7. The relationships between users' perception (UPC) and information richness (IR) (b = 0.720, p < 0.001) were found to be statistically significant, and thus, hypothesis H1 is generally supported. The results showed that users' satisfaction (US) significantly influences perceived ease of use (PEOU) (b = 0.491, p < 0.001) and perceived usefulness (PU) (b = 0.472, p < 0.001), supporting hypotheses H3 and H4, respectively. Furthermore, information richness (IR), users' satisfaction (US), educational system quality (ESQ) and information quality (IQ) have significant effects on behavioural intention to accept and subscribe to micro-insurance (BI) (b = 0.628, p < 0.001), (b = 0.235, p < 0.05), (b = 0.341, p < 0.05) and (b = 0.705, p < 0.001), respectively; hence, H2, H5, H6 and H7 are supported.

Table 10. Hypotheses testing of the research model (significant at ** p0.01, * p < 0.05).

H	Relationship	Path	t-Value	p-Value	Direction	Decision
H1	UPC -> IR	0.720	28.657	0.000	Positive	Supported **
H2	IR -> BI	0.628	10.880	0.000	Positive	Supported **
H3	PU -> US	0.491	15.489	0.000	Positive	Supported **
H4	PEOU -> US	0.472	15.228	0.003	Positive	Supported **
H5	US -> BI	0.235	3.277	0.029	Positive	Supported *
H6	ESQ -> BI	0.341	3.454	0.031	Positive	Supported *
H7	IQ -> BI	0.705	8.072	0.000	Positive	Supported **

Note: BI is behavioural intention to accept and subscribe to micro-insurance ; ESQ is educational system quality; IQ is information quality; IR is information richness; PEOU is perceived ease of use; UPC is users' perception; PU is perceived usefulness; US is users' satisfaction.

Discussion of the Results

The data analysis has shown that all the seven hypotheses are supported, which empowers our assumptions. The information richness, educational system quality, information quality, satisfaction and ODT constructs have a decisive role in measuring respondents' perception of using micro-insurance subscription. The crucial issues that can be highlighted are related to the association between satisfaction and PEOU and PU on one hand and that between information richness and PC on the other hand, as is explained below.

The current results are in line with prior studies regarding the crucial role of information richness in measuring the intention to use micro-insurance subscription, and they support the awareness situation with the three dimensions of perception, comprehension and projection. These three dimensions play a major role in the acceptance of micro-insurance institution orientation platforms. The content richness can enrich the micro-insurance institution orientation platform pedagogically by adding the features of interactivity, convenience, instant feedback and social learning. This implies that the higher the content richness is, the more effective the micro-insurance institution orientation platform will be.

The secondary result is concerned with the importance of the correlation between users' satisfaction and the two ODT constructs. The higher the degree of perceived ease of use and the perceived usefulness is, the higher the satisfaction level will be. The prior conclusion is consistent with the argument that is proposed by studies from. These studies focused on the effectiveness of ODT in different fields such as the agricultural and oil industries and arrived at the conclusion that ODT factors have a varying degree of effectiveness and can significantly affect the acceptance of micro-insurance subscription virtually and practically. The results of the study show that the research model has been validated successfully. The perceived ease of use has a significant effect on the intention of using an orientation learning platform from respondents' perspectives. The findings also reveal that perceived usefulness has a significant

effect on respondents' intentions to use this technology and can lead to successive actual use. It explains why respondents are in favour of constantly using micro-insurance subscription, as they are advantageous in terms of enhancing and facilitating the teaching–learning process.

The third result is concerned with the educational system quality and information quality, which are crucial factors that affect the intention to accept and subscribe to micro-insurance. A student's perception of an orientation learning platform will be more satisfactory whenever they have a high education quality system and effective information quality. Accordingly, system quality will significantly affect the intention to accept and subscribe to micro-insurance. The chances accept and subscribe to micro-insurance will increase if the system is annually improved. This leads to a positive evaluation by respondents, and it will tremendously affect their perception of the system. In short, when the system quality is improved continuously, it will significantly and positively affect respondents' perception, especially when the improvement is related to basic features that keep immediate feedback, orientation communication and accessibility active. The information quality will be affected by such types of improvement, leading to a positive and significant impact on respondents' perception. The current result is in agreement with previous studies that stated that information quality is considered significant if it satisfies users' needs. Both the system quality and information quality of micro-insurance subscription have a significant effect on the intention to accept and subscribe to micro-insurance. This result is consistent with studies who stated that the effectiveness of system quality and information quality are significant and the improvement of both will result in more fruitful efforts.

In conclusion, this study has proven that the acceptance and subscription to micro-insurance will be evident. The fact that micro-insurance institution orientation offer ease of use and usefulness will help respondents and teachers to continue using them even when face-to-face classes are resumed. These two features increase the degree of satisfaction expressed by users. The other variables of PC and information flow have added more advantages to using these platforms. Pedagogical and academic factors are highly affected by the use of these platforms in the educational environment. Finally, when the system quality and the information quality adequately meet the users' needs, the users' perception is improved. Thus, the study has shown that micro-insurance institution orientation are influential means of teaching along with traditional classes due to their specific and unique features.

Reviewed Penetration Rate

Inclusion: A survey conducted in Nigeria in 2017 by Adeola and Evan (2017)through the Enhancing Financial Innovation and Access (EFInA), a development finance organization revealed that about 53 percent of adults in Nigeria were excluded from financial services. The country showed promise at the initial stages, reducing the exclusion rate to 46.3 percent in 2010 from 53 percent in 2008. Two years later, the Central Bank of Nigeria (CBN) in collaboration with stakeholders launched the National Financial Inclusion Strategy aimed at further reducing the exclusion rate to 20 percent by 2020.

Micro-insurance penetration: The comprehensive study undertaken by Roth et al., (2007) of micro-insurance of 100 low-income countries has it that about 98% of the population in Nigeria is without micro insurance, Roth et al (2007) linked this not to the lack of community-based financial organizations, but as a result of a general mistrust of people

towards insurance. De Vos, et al., (2011) showed that only about 1% of the adult population in Nigeria is covered by any form of insurance.

However, the country had only achieved an exclusion rate of 41.6 percent in 2016, making its 2020 target unrealistic.Specifically, the CBN wanted adult Nigerians with access to payment services to increase to 70 percent in 2020 from 21.6 percent in 2010, while those with access to savings should increase from 24.0 percent to 60 percent; and Credit from 2 percent to 40 percent, Insurance from 1 percent to 40 percent and Pensions from 5 percent to 40 percent, within the same period. While progress, albeit slow, is being recorded in some areas, insurance has continued to perform poorly, with only 1 percent of the Nigerian population currently holding any form of insurance policy. The performance of the industry is disheartening, considering its potential and the fact that it started as far back as 1921.

It becomes difficult to sell micro-insurance in Nigeria where mobile money is not living up to expectation. Hence, insurance companies focus their strength on policies with higher premiums. So, even for many low-income earners who have access to basic banking services, insurance remains strange.

Proposed Micro-insurance Model for Nigeria

One of the greatest challenges for micro-insurance is the actual delivery of the service to clients. Methods and models for doing so vary depending on the organization, institution, and provider involved. As Droret al., (2016) states,one must be thorough and careful when making policies, otherwise, micro-insurance could do more harm than good. Generally, there are four main methods for offering micro-insurance, which are: the partner – agent model, the provider–driven model, the full – service model, and the community – based model. These are treated in detail below.

(i) Partner – Agent Model: A partnership is formed between the micro-insurance provider and an agent such as an insurance company, micro-finance institution, donor etc. In some cases a third-party healthcare provider may be involved. The micro-insurance provider is responsible for the delivery and marketing of products to the clients, while the agent retains all responsibility for design and development. In this model, the provider benefits from limited risk as the burden of risk is shared; though this could also be disadvantageous to them as the premium is also shared.

(ii) Full – Service Model: In this model, the micro-insurance provider is in charge of everything; both the design and delivery of products to the clients. He may work with external healthcare providers to provide the services. Although this model has the advantage of offering the service provider full control, it also has the disadvantage of incurring higher risks.

(iii) Provider – Driven Model: Here, the healthcare provider is the micro-insurance provider. He is responsible for all operations, delivery, design and service. The amount of control retained once again acts as an advantage; while the disadvantage is that of limitations on products and services.

(iv) Community – Based/Mutual Model: With this model, the policyholders or clients are in charge, managing and owning the operations and working with external healthcare providers to offer services. It is advantageous for its ability to design and market products more easily

and effectively. Its basic disadvantage is that of the small size and scope of operations it usually entails (Chuchill, 2006; Décor, 2005; Dror et al, 2016).

Observed lapses to Overcome

Despite the preferred model above, the study uncovered that there exist various bottlenecks in the Nigerian economy that might counter the proposed models above.

Product design risk: in the context of micro-insurance results because potential clients are exposed to a myriad of risks, all of which cannot be feasibly insured (Roth et al, 2007; Mbogo, 2010). The products formed fail to meet consumer expectations (Brown & McCord, 2000). Mbogo (2010) finds micro-insurance products to be general and inadequate in meeting the user needs in Nigeria. An example is that fact that many operators, particularly in Nigeria, believed that the way to go about doing micro-insurance is reducing the perils covered and sum insured for any particular product with a view to reducing the cost of insuring to accommodate low-income earners. Unfortunately, it never worked that way. Product design further affects the quality of the service. Although micro-insurance clients may not afford high prices, they need high-quality products, in fact, better-quality micro-insurance product (faster settlement of claims, fewer exclusions, and wider coverage) to attract them to insurance. Prahalad (2005) shows that the poor too are brand conscious.

Moral hazard: in the context of micro-insurance relates to fraudulent activities where clients overvalue their assets or make false (Churchill, 2007). Moral hazard is prevalent in the micro-insurance business as clients can gain a lot and have little to lose (Weiss, 2006). The physical remoteness of the market served makes it difficult for the insurer to verify the existence of assets and the diligence that the insured places on insured assets against loss probabilities. Moral hazard endangers customers' protection and distorts the financial viability of the insurer (Dalal & Morduch, 2010).

Adverse selection: occurs because individuals who are predisposed to risks or expectations of risks are more likely to purchase insurance implying that a disproportional part of high-risk individuals become members of an insurance scheme (Weiss, 2006) raising the cost of insurance provision. Adverse selection destabilizes the insurance system because the ideology of risk-pooling assumes that a lower proportion of the insured will suffer losses (Brown & Churchill, 2000).

Micro-insurance pricing: This presents significant challenges because of the need to balance prices, costs, sustainability, and affordability. Price charged should cover all claims and operating expenses and generate a profit. Low-income people buy insurance if the products meet their needs and are fairly priced (Brown and McCord, 2000). As such, the micro-insurance policy premium is often lower than the administrative cost incurred, thus unprofitable in the absence of economies of scale. The operating expenses commonly included in the premium are distribution costs, underwriting expenses, claims assessment expenses, the transaction cost of collecting premiums and administration costs (Weiss, 2006).

Risk correlation or covariance: This occurs when a significant cross-section of policyholders suffer economic loss from the same risk (Azam & Amai, 2012). The capacity of insurers to provide micro-insurance products depends in part on risk source, correlation, frequency, and intensity. Such risks can be low frequency but with high economic impact

(catastrophic risk), or high frequency with low economic impact (non-catastrophic) (Maleika& Kuriakose, 2008).

Whichever way covariant risk is a major challenge for micro-insurers (Weiss, 2006).

Regulatory risks for micro-insurance depend on the country, institutions and product involved (McCord, 2011). Regulations for micro-insurance typically specify the delivery channels, intermediary market, registration, and product approvals (McCord, 2011). Regulation can be beneficial, but enforcing the laws of conventional insurance on micro-insurance hampers the growth of the sector (Churchill, 2007; IAIS, 2008). Olaosebikan (2013) documents the inhibiting regulations in Nigeria as the minimum capital requirement, licensing, distribution channels and investment regulations as stipulated by Section 7 of NAICOM act. While liberal insurance legislation resultsin the expansion of insurance services rigid legislation can hamper the growth of micro-insurance businesses. Appropriate legal infrastructure not only safeguards the interests of policyholders but also minimizes institutional risks (Churchill, 2007).

Income variability: This is a major challenge in micro-insurance provision since the target market consists of self-employed people and workers in the informal sector (Churchill, 2007; Dalal & Morduch, 2010) whose incomes are often low and unpredictable. Additionally, most micro-insurance models allow for the contribution of small denominated high-frequency premiums (Prud'Homme&Traole, 2007) which have a direct effect on per unit transaction costs.

The inadequacy of distribution channels risk is inherent in all micro-insurance initiatives. Generally, micro-insurance products are delivered through Microfinance Institutions (MFIs), post offices, Non-Governmental Organizations (NGOs) or through company employees (Roth et al, 2007). Micro-insurance charges low premiums hence the distribution costs must be minimized (Mahul&Stutley, 2010). Insurers are often constrained by a lack of low-cost distribution channels that can reach low-income earners' target market. For most insurers, premium collection and claims settlement occur through direct contact between the policyholder and the relevant department within the insurer; with remoteness, low confidence in insurance products and low awareness amongst clients, this method of distribution of the products pose a significant risk (Fischer & Qureshi, 2006).

Finally, Micro-Insurance is expensive to implement at the start-up phase since big expertise is needed to price and market the product and establish triggers; and, needs sufficient historical data and precise measurements to develop the index (Skees et al, 1999).

Findings and Discussion

This research has shown that micro-insurance is not a very popular financial service in many developing countries; as many fail to appreciate the importance of transferring risk. While the upper and middle class would venture only so far as to sign up for car insurance, the idea of steady cash outflow to recover from something that may or may not occur simply evades the poor, who are already hard up on cash. Chang (2010) observes that although insurance has a low penetration rate of 6% in Nigeria, statistics indicate that in comparison to the 35 countries considered to be 'low in human development, Nigeria actually has a more developed insurance market. As such, Nigeria provides an appropriate environment for micro-insurance, which can be regarded as new, with an enormous market waiting to be explored. There have

been several failed attempts to go into micro-insurance by insurance providers. Research carried out by Obuvie (2010) proves that the few insurance providers that may have incorporated the product, produced products that were thrift in nature, hence did not survive the test of time. He propounds a need for thorough research on micro-insurance products as a step towards a deeper insurance penetration in Nigeria. It is in line with this statement that this study advocates for the adoption of the community-based/mutual micro-insurance model in Nigeria.

The community – based/mutual micro-insurance model provides an avenue for the micro-insurance provider to develop products which serve the peculiar needs of each individual community. There is also the added advantage of community participation, which aside from involving the 'clients' or 'policyholders' in the management and operations of the product, also serves as a medium of intimating the rural dwellers on the necessity and functions of insurance. Efficiently managed, this model may be an effective way of reaching out to the rural dwellers, who invariably represent a proportionate number of low-income people, with micro-finance products.

Conclusion and Recommendations

The insurance regulator, National Insurance Commission (NAICOM), which has always stated its commitment to deepening insurance penetration and increasing the industry's contribution to Nigeria's Gross Domestic Product (GDP), believes that micro-insurance is a veritable tool for achieving this. Banarjee (2008) documented that micro-insurance policy offers protection against a set of pre-determined risks relating primarily to business, health, agriculture, and life. But in the micro-insurance sphere, the target market is specific; low insurance communities where people live on less than $2 a day according to a group of which pools together its risk and prepaid contributions rather than to the individual, as in the case with conventional insurance. Contributions or Premium are typically small and paid frequently, suiting the paying capacity of these communities.

Conclusion

It could, therefore, be concluded that the acceptability of micro-insurance in rural areas will depend on the level of income, types of assets owned, level of education of the rural dwellers and the availability of infrastructural facilities in the area. Insurance in Less Developed Countries is very low and so their populace is much vulnerable whatever shock that may come their way. The resulting effect is enlarging the vicious circle of poverty to enable successful and smooth transmission from one generation to another. No doubts insurance can provide a holistic way to combat poverty but only in advance economy. However, in LDCs there is very minimal hope for conventional insurance services to stamp their authority in the alleviation of the severity of poverty. Micro-insurance however, can break the cycle of poverty" by providing low-income households, business and farmers with access to post-disaster liquidity, thus protect their livelihoods and providing for reconstruction. Therefore, insured households and firms are more creditworthy; these kinds of insurance can also promote investments in productive assets and higher risk yield crops.

Recommendations

In light with the observed findings, the study employs the following relevant operational model to increase the level of micro-insurance penetration in Nigeria.

- **Efficient Distribution Channels:**

The models used in distributing micro-insurance products must be pragmatic, cost-effective and transparent. Themain distribution model involves the use of Community-Based Organizations (CBO), local community organizations,MFIs, NGOs and or cooperative societies (Garand & Wipf, 2006). Despite using partners, the insurer pools manageand absorb the risk. Microfinance institutions and commercial banks also directly market micro-insurance productsto potential clients in the provider model (Maleika& Kuriakose, 2008). This model has a wide reach in the general insurance market but suffers from high transaction costs, when applied in low-income, low-margin markets such asrural areas with dispersed populations (Maleika& Kuriakose, 2008). Relevant suggestions include; funeral parlors, directselling, mobile services, shops, supermarkets, petrol stations and public utility companies as distribution channelsthat can be explored for micro-insurance delivery.

- **Price Reviews**

Generally, insurers lack accurate data to enhance accurate pricing hence the prices charged may be less or far much more than the costs. To address this problem insurer can allow an error margin and then make adjustments once theclaims are lodged (Patel, 2002). Churchill (2007) advises micro-insurers, to constantly make price adjustments byusing actuarial services.

- **Thorough Scrutiny of Micro-Insurance Claims and Applicants**

Scrutiny of claims minimizes moral hazard (Dalal & Morduch, 2010). The scrutiny criteria for claims must beembedded at the product design stage. One of the strategies is to use relationship community structures (Dalal andMorduch, 2010) where the clients are sensitized on the need to make genuine claims. Screening applicants help tominimize adverse selection (Siegel et al, 2001). Risky clients are detected and excluded from coverage.

- **Flexible Payment of Premiums**

To overcome income variability, micro-insurance providers need to design premium payment methods that ensuremaximum collection. Policyholders should be asked to pay when they have the money for example at harvest time,or when they receive a loan or a government cash transfer (Siegel et al, 2001; Gitonga, 2009) in addition tomobile money transfers (Mbogo, 2009).

Four models of the premium collection according to Maleika and Kuriakose (2008) include the premium linked modelwhere micro-insurance products are linked to other final products especially loans. Automatic premium deductionfrom savings account model involves a direct deduction from the policyholder's bank account. An alternative option isthe interest-premium model, where premiums are paid from savings account interest. Lastly, the door-to-doorpremium collection model ensures the physical collection of premiums either by going door to door to collect individual payments or through group mechanism where many payments can be collected at once. For micro-insurance tosucceed, the premium payment mechanism must balance between efficiency, sustainability and client capacities.

- **Niche Marketing**

In assessing the market for micro-insurance, emphasis should be placed on the size of the geographical region, the numberof potential clients, culture, and capacity to pay (Churchill, 2007). Adequate market research on helps to determinethe potential market and identifies those segments of the market that have specific usage and attitude problems withrespect to micro-insurance. The findings should be used to devise plans to recruit clients (Prahalad, 2005). The micro-insurancecompanies should anticipate and satisfy the need of its varying clients and thus gain deep penetration in the differentregions. As such, insurance companies should come up with insurance products targeting specific markets.

- **Partnering with Other Intermediaries in the Value Chain**

Linking micro-insurance programs to other intermediaries is a helpful strategy to compensate for some risks byminimizing distribution costs while increasing outreach, affordability and economies of scale (Churchill, 2006). Theinsurer may use NGOs, MFIs, agribusiness firms or local banks to liaise between the customer and insurancecompany, and manage marketing and administration functions.

- **Public Awareness**

Many clients are skeptical about paying premiums for an intangible product with future benefits that may never beclaimed and they often do not trust insurance companies. Some insurance firms provide information andeducation campaign among low-income households on the need for risk protection through such schemes asmicro-insurance and to differentiate micro-insurance from the conventional insurance products (Siegel et al. 2001).

Insurance policies must be easy to understand, particularly in places where levels of insurance illiteracy, or indeedilliteracy in general, are high. Unless micro-insurance is seen to settle losses (the basic minimum requirement),customers lose interest in the same. For a micro-insurance scheme is to succeed, it needs to satisfy, among otherconditions; comprehensibility and understandability by the clients (Morelli *et al.*, 2010).

- **Re-Insurance**

Reinsurance or risk transfer is vital to the short and long-term viability of micro-insurance. Lack of reinsurance ofunderwritten policies or access thereto hampers the mass market principle and threatens the financial solvency ofexisting and potential insurance firms into micro-insurance owing to potential losses, as well as their millions ofexisting and potential low-income clients (Tremblay et al. 2006). Some micro-insurers strengthen the viability andthe financial capacity of the schemes through reinsurance or guarantee funds. Prahalad (2005) echoed this point bystating that well-managed insurance companies use reinsurance to manage risk, although reinsurance is not necessaryfor all situations. Larger insurance companies that are involved in micro-insurance, do not purchase reinsurance fortheir smallest policies because they cover many people for small sums over a large geographical area (Siegel et al.2001). However, micro-insurers without significant reserves and without portfolios diversified between traditionaland micro-insurance explore reinsurance arrangements (or at least insurance for catastrophic losses) (Prahalad,2005).

- **Responsive Regulation**

Regulation plays a key role in bolstering trust in insurance and is an important factor in reducing themicro-insurance risks (Zingales, 2009). The regulatory environment should

encourage tapping of a wide range ofdistribution channels for micro-insurance (Makove, 2011). Insurance laws, regulations, and rules have developedover time with traditional insurance in mind. These traditional products continue to be inaccessible to the poor. Toenhance micro-insurance, legal action should be taken on the errant insurance firms, fraudulent agents and deceptive clients (Morelli, et al, 2010).

- **Development of Risk Measurement Models**

Micro-insurance service providers should develop a simple and sound micro-insurance policy framework to growand develop the business. The firms should carry documentation of existing risk management schemes andmicro-insurance practices adopted by insurers including the collection of adequate data on risk prevalence ofareas/clientele demographics (Makove, 2011). Insurance firms can also develop risk measurement models formicro-insurance products and during underwriting, considering the unique needs of the low-income market, namely;customer needs, product design, delivery systems, and even business models. Insurance companies should invest in research and development and actuarial services to help in the pricing of products and risk mitigation.

- **Social Welfare (Sponsorship)**

Insurance firms can mitigate risks by using sponsors in the micro-insurance schemes which also enable them to offer their services at subsidized rates (Maleika& Kuriakose, 2008). Micro-insurance schemes that emerge from the social protection perspective are either financed in whole or in part by government funds or a strategy for sustainability is to gain access to these subsidies eventually (Roth et al., 2005).

Overall, this study recommends the establishment of more micro-insurance in Nigeria. While setting the micro-insurance caution should be exercised to make it in conformity with the social, cultural and religious setting of the populace for it to gain recognition and acceptability otherwise it is likely to get low patronage.

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