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# The Determinants of successful uptake of Life Assurance products – A Literature Review

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**Abstract**
The consumption of life assurance products globally is said to be influenced by several broad factors, including socio-economic, demographic, political and internalization, among others. Generally, the consumption levels of life assurance products have not been impressive. In most cases the incepted life assurance policies end up lapsing and therefore fail to meet the intended purpose. This paper explores the historical background of insurance in general and specifically, life assurance in Kenya. It reviews both the theoretical as well as previous empirical studies in an effort to assess the determinants of life assurance consumption in Kenya.
**Keywords:** Life assurance demand, rationality, self-interest, utility maximization, prospect, human life value, uptake level, insurance, risk, distribution channels

## 1. Introduction

Insurance may be generally defined as a cooperative device to spread the loss caused by a particular risk over a number of persons who are exposed to it and who agree to ensure themselves against that risk. Risk, in the insurance jargon, refers to uncertainty concerning the occurrence of a loss and is usually categorized as pure or speculative, in which case, insurance is more concerned with pure risk (Regda, 2004). From a legal perspective, insurance is an agreement by which one party, the policyholder, pays a stipulated consideration called premium to another party called the insurer, in return for which the insurer agrees to pay a defined amount or provide a defined service upon the happening of a specified event during the currency of the policy term (Black & Skipper , 2008). An insurance policy is based on the law of contracts. To be legally enforceable, an insurance contract must meet four basic requirements: there must be an offer and acceptance, consideration must be exchanged, the parties to the contract must be competent, and the contract must be for a legal purpose (Regda, 2004).

According to Black and Skipper (2008), there are two broad categories of insurance products that are offered in the insurance market today namely; Life and Non Life (general) insurance. Life assurance products are generally long term in nature, usually for a minimum period of five years, providing both the protection and savings element, for instance endowments. On the other hand, general insurance products, which basically provide protection, are short term in nature, usually for a maximum period of 12 months, renewable. These include, Property insurance (fire, all risks, money, theft/burglary, consequential loss, glass, engineering etc), Liability insurance (product, public, professional), and Transport insurance (marine, motor and aviation). The basic characteristics of insurance include, pooling of losses, payment of fortuitous losses and risk transfer and indemnification. However, this study shall focus on Life Assurance products with particular reference to ordinary life including term assurance, whole life, endowment and unit-linked policies. The main purpose of a life assurance policy is to create a capital payment in the event of death. The design of this contract takes the form of not being

an indemnity contract but that of a benefit policy. An immediate estate is created by a life assurance contract. There is no partial loss in life assurance contracts, hence payment of benefits are made in the event of death or maturity of the assured term whichever is applicable (Black & Skipper , 2008).

*1.1 An overview of Insurance Evolution*

It is said that the origin of insurance is lost in antiquity. However, according to recorded evidence, the earliest form of insurance was marine insurance, followed by fire and life insurance, and later on the miscellaneous insurance in their various forms. Marine insurance is actually the oldest form of insurance, with its bottomry and respondentia contracts being traced back to over 3000 years ago. Fire insurance developed after marine insurance in Germany around the beginning of the sixteenth century with the establishment of a fire insurance office in England in 1681. At around the same time, Life Insurance was underwritten with the first policy on the life of William Gybbons on 18th of June, 1653, but even before then, annuities had become quite common in England (Kothari & Bahl, 1993). The same scholars indicate that Life insurance did not prosper in the United States of America during the 18th century, because of serious fluctuations in the death rate, but soon after 1800, some active interest began to be shown in this enterprise because of the application of level premium, a concept from the United Kingdom. Miscellaneous insurance took the present shape at the later part of the 19th century with the industrial revolution in England. Accident, fidelity, liability and theft insurances were the important forms of insurance at that time with the Lloyd's Association being the main functioning insurance institution. Black and Skipper (2008) also indicated that more , insurances such as livestock, crop, profit, bloodstock, aquaculture and the like have been developed within the scope of general insurance and more policies are being developed with the advancement of the society. Life assurance is a valued property and a long-term contract which remains alive through the periodic payment of premiums (as stipulated in the contract). However, due to non-payment of premiums on mandated due dates, the contracts cease to be in force; that is, the policy lapses, and consequently the policyholder's insurance protection is withdrawn (Pandmavathi, 2013).

*1.1.1 Regulatory framework in Kenya*

The main statute regulating the industry is the insurance Act; Laws of Kenya, Chapter 487 which governs its operations. It came into being in 1987 when the office of the Commissioner of insurance (now the Insurance Regulatory Authority) was formed. The authority is charged with several duties including ,enforcement of the provisions of the Act, formulation and enforcement of standards of conduct,protecting policy holders, as well as approval of tariffs and rates of insurance in respect of any class or classes of insurance, among others. Self regulation also happens through AKI – Association of Kenya Insurers and AKR ( Association of Kenyan Reinsurers).

*1.1.2 Distribution channels*

Distribution accounts for the largest element in insurance costs and impacts on the profitability. Distribution capabilities strongly influence product design and have a direct impact on the insurer's image. Integrity of the distribution channel is a key concern of the regulatory mechanism. The main distribution channels include Career agents, Bancassurance, Franchise models and Direct Marketing. A Career agent is a network of management personnel, sales and service support personnel structured to distribute life insurance products. It involves the sale

and service of insurance products on a personal basis, usually one- on- one (agent to buyer). The agency channel of distribution accounts for about 90% of all the individual life insurance business in Kenya. The Agents distribute all types of products and there are over 4000 insurance agents in Kenya. Two types of agents exist: (1) Independent Agents and (2) Tied Agents BROKERS. A broker is an agent who negotiates contracts of purchase and sale. The broker is a corporate entity that serves the applicant for insurance by assisting in placing risks. This channel accounts for about 90% of corporate life benefits and general/nonlife insurance business. The Channel is highly fragmented with 5% of the brokers controlling more than 90% of business. There are 141 licensed insurance brokers whose compensation is 100% commission( (AKI, 2014).

Bancassurance involves an insurance company negotiating a contract with a banking institution which in turn sells the insurance company's schemes alongside its banking products to its existing and new clients. This method is gaining popularity globally and is gradually breaking down traditional barriers in how businesses supply financial products and services. The products can be stand alone or embedded in the banking products – Credit Life. Current Challenge in the Kenyan market is the banking Act that inhibits banks from selling insurance products (AKI, 2014). Franchise models is a method that gives third parties the right to participate in the company's business as agreed upon in the terms of the franchise agreement. Examples include car manufacturers/dealers, established supermarkets and retail chains e.g. fire and theft insurance on electronics, Mobile phone companies, supermarkets, food stores/restaurants (e.g. personal accident-PA- insurance) airlines and travel agencies (travel insurance). This method commonly used to distribute general & medical insurance. Direct marketing refers to the method of distribution that permits the supplier and the consumer to make transactions directly with each other. Under this method consumers have direct access to the supplier through the mail, by telephone, or other media. Companies using this model have direct marketing staff responsible for handling direct client value chain (AKI, 2014).

According to Mwangi (2013), the current channels are deemed appropriate for Kenya's level of development, literacy levels and education. However, these channels have only been efficient to a small extent because they have not been able to reach out to a large percent of the Kenyans. Brokers have been particularly efficient in reaching out to the high end in the market while agents have only reached the individual clients (mainly middle income earners and the employed people). Bancassurance is on the other hand still a young channel in the industry and very underdeveloped. Other channels that are seen to have high potential are; the internet, worksite, telemarketing, Partnering with community based organizations, Invisible insurer and Virtual marketing (Mwangi, 2013).

*1.1.3 The Types of Life Products on the market*

Life insurers sell protection for events related to a person's life. Death protection products, for example, pay a fixed amount on the death of the policyholder. Living benefit products provide an income stream for retirement to the policyholder, hence covering the "risk" of living too long and the expenses related to this event. Life insurers also sell savings-type products, which are considered insurance contracts because they contain a trigger connected to a person's life or because of their duration. Endowments, for example, pay a fixed amount at a certain age of the policyholder, who has paid either single or regular premiums. Insurers sell a variety of products, ranging from pure protection to pure savings products. This paper, will confine itself to the Life assurance products including Term assurance, Whole Life, Endowment and Unit-Linked

policies. These are some of the most common life assurance products, although, not an exhaustive range of all the available products in the market since there are various combinations of these (Firkins, Thiele, Bi, & Palma, 2009).

Firkins et al (2009) further describes these products thus; Term assurance is a traditional policy through which the insurer will pay out a fixed amount (level term insurance) or an amount decreasing over time (decreasing term insurance) upon death of the policyholder to the beneficiaries indicated in the contract, usually family members. The contract has always a definite timeframe. The contract protects the beneficiary from the risk of death of the policyholder and the consequent loss of income. Decreasing term insurance is often associated with mortgages, so that the beneficiary can complete the payment of the mortgage. Whole life insurance is a traditional policy through which the insurer will pay out a fixed amount upon the death of the policyholder, at any point in his/her life, to the beneficiaries indicated in the contract, usually family members. The duration of this contract corresponds to the life of the policyholder. Therefore, the contract protects the beneficiary from the risk of death of the policyholder and the consequential loss of income. Endowment policy refers to a policy where the insurer pays out a lump sum at maturity. The policy can be in traditional, with-profit or linked form. It usually has long durations. As it is a savings-type contract, it is often combined with a term insurance contract, to protect for the risk of death before maturity. It can also be combined with a decreasing term insurance contract, in which case it would be called mortgage endowment. Unit-linked life products refer to policies in which he insurer does not guarantee a set return and the policyholder fully participates in the profits or losses made, bearing all investments risks arising from investing in an underlying unit of an investment fund. This is a savings-type contract and the payout can be either in the form of annuities or a lump sum at maturity (Firkins,et al, 2009).

## *2. Literature Review – Theoretical foundation*

The concept of Life assurance uptake can be explained based on some neoclassical economic theories. Life assurance is looked at as consisting of ordinary life, term policies, whole life and unit-linked policies. For purposes of this paper, group life policies are excluded as they are normally used by employers to attract and retain staff, so it's more of a human resource strategy for an organization, in which case it falls outside the scope of this study. We shall look at the Utility theory, Prospect theory, Human Life Value theory and the Neoclassical economic theory to lay the theoretical foundation for the study.

### *2.1 Utility theory*

The writers who introduced the concept of "utility" were Jeremy Bentham (1748-1832), Thomas Bayes (17021761), and Daniel Bernoulli (1700-1782). Jeremy Bentham, in his 1789 book *Principles of Morals and Legislation*, introduced the concept of "utility:" According to the business dictionary , utility theory refers to the economics concept that although it is impossible to measure the utility derived from a good or service, it is usually possible to rank the alternatives in their order of preference to the consumer. Since this choice is constrained by the price and the income of the consumer, the rational consumer will not spend money on an additional unit of good or service unless its marginal utility is at least equal to or greater than that of a unit of another good or service. Therefore, the price of a good or service is related to its marginal utility and the consumer will rank his preferences accordingly. Early economists, led by Nicholas Bernoulli, John von Neumann, and Oskar Morgenstern, puzzled over this

question. In the beginning of the 18th centuary, Bernoulli developed the first formal explanation of consumer decision-making. A consumer's utility is hard to measure. However, we can determine it indirectly with consumer behavior theories, which assume that consumers will strive to maximize their utility. Utility is a concept that was introduced by Daniel Bernoulli. He believed that for the rational person, utility increased with wealth but at a decreasing rate. It was later extended by von Neumann and Morgenstern and called the Utility Theory. This theory proposed that consumers make decisions based on the expected outcomes of their decisions. Utility theory provides a methodological framework for the evaluation of alternative choices made by individuals, firms and organizations. Utility refers to the satisfaction that each choice provides to the decision maker. Thus, utility theory assumes that any decision is made on the basis of the utility maximization principle, according to which the best choice is the one that provides the highest utility (satisfaction) to the decision maker. Utility theory is often used to explain the behavior of individual consumers. In this case the consumer plays the role of the decision maker that must decide how much of each of the many different goods and services to consume so as to secure the highest possible level of total utility subject to his/her available income and the prices of the goods/services. In addition to providing an explanation of consumer disposition of income, utility theory is useful in establishing individual consumer demand curves for goods and services. A consumer's demand curve for a good or service shows the different quantities that consumers purchase at various alternative prices. Factors that are held constant are consumers' tastes and preferences, income, and price. In this model consumers were viewed as rational actors who were able to estimate the probabilistic outcomes of uncertain decisions and select the outcome which maximized their well-being. However, as one might expect, consumers are typically not completely rational, nor consistent, nor even aware of the various elements that enter into their decision-making.

Irrespective of the type of utility function, utility theory assumes that preferences are complete, reflexive and transitive. The preferences are said to be complete if for any pair of choices x and y, one and only one of the following be stated: (1) x is preferred to y, (2) y is preferred to x, or (3) x and y are equally preferred. The preferences are said to be reflexive if for any pair of choices x and y such that x equally preferred to y, it is concluded that y is also equally preferred to x. Finally, the preferences are said to be transitive if for any three choices x, y, z such that x is preferred over y, and y is preferred over z, it is concluded that x is preferred over z. The hypotheses on reflexivity and transitivity imply that the decision maker is consistent (rational). A further assumption of utility theory is that decision makers are willing to trade one choice for another. The existing trade-offs define the marginal rate of substitution. As example suppose that two investment projects are considered by a decision maker. Project x has a return of 6 percent and a risk of 4 percent, whereas the return for project y is 5 percent and its risk is 2 percent. Assuming that the decision maker considers both projects to be equally preferred, it is clear that the decision maker is willing to increase the risk by 2 percent in order to improve return by 1 percent. Therefore, the marginal rate of substitution of risk for return is 2. In real world situations, the marginal rates of substitution are often decreasing. Such situations correspond to diminishing marginal utilities (marginal utility is defined as the change in total utility resulting from a one-unit change in consumption of the good or service). In the above example, we can assume that the decision maker is willing to take higher risks in order to get higher return, but only up to a specific point which is called saturation point. Once the risk has reached that point, the decision maker would not be willing to take any higher risk to increase return and therefore the marginal rate of substitution at this risk level would be zero. The

traditional framework of utility theory has been extended over the past three decades to the multi-attribute case, in which decisions are taken by multiple criteria. Multi-attribute utility theory has been evolved as one of the most important topics in multiple criteria decision making with many real world applications in complex real world problems.

The concept of utility can be used to analyze individual consumer behavior, to explain individual consumer demand curves as well as in modeling the decision makers' preferences. In all cases, it is assumed that some choices are evaluated and the best one is identified as the choice that maximizes the utility or satisfaction. In addition, though consumers are good at estimating relative frequencies of events, they typically have difficulty translating these frequencies into probabilities. This theory is relevant in explaining the consumer patterns of life assurance policies in Kenya since most consumers of life assurance products will want life products designed to provide more benefits so that they can derive maximum utility.

*2.1.2 Prospect theory*

Prospect theory implies individuals make decisions by evaluating gains and losses relative to a reference point, where utility is concave over gains and convex over losses; furthermore, losses are weighed more heavily than gains in this setting. Cumulative prospect theory, developed by Kahneman and Tversky (1979, 1992) implies individuals make decisions by evaluating gains and losses relative to a reference point rather than evaluating expected final wealth. Prospect theory shows people process these gains/losses using a value function that is concave for gains and convex for losses. This S- shaped value function captures individuals risk-aversion over gains and risk-seeking behavior over losses. Furthermore, people with prospect theory preferences are willing to take on additional risk in order to avoid feeling a loss. This feature implies individuals weigh losses more heavily than gains, and this aspect of prospect theory has been termed "loss aversion." Some behaviors observed in economics, like the disposition effect or the reversing of risk aversion/risk seeking in case of gains or losses (termed the *reflection effect*), can also be explained by referring to the prospect theory. The pseudo-certainty effect is the observation that people may be risk-averse or risk-acceptant depending on the amounts involved and on whether the gamble relates to becoming better off or worse off. This is a possible explanation for why the same person may buy both an insurance policy and a lottery ticket. An important implication of prospect theory is that the way economic agents subjectively frame an outcome or transaction in their mind affects the utility they expect or receive. This aspect has been widely used in behavioral economics and mental accounting. Framing and prospect theory has been applied to a diverse range of situations which appear inconsistent with standard economic rationality: the equity premium puzzle, the excess returns puzzle and long swings/PPP puzzle of exchange rates through the endogenous prospect theory of Imperfect Knowledge Economics, the status quo bias, various gambling and betting puzzles, intertemporal consumption, and the endowment effect. This theory could shed some light in the consumer behavoiur in relation to the consumption of life insurance products.

*2.1.3 Human Life Value theory*

Huebner (1927), the father of modern life assurance, established the theory of Human Life Value as the economic and philosophical framework of life assurance in 1950. Huebner's theory of Human Life Value postulates that human life has an economic value (Huebner, 1927). This theory postulates that every person who earns more than is necessary for his own self-maintenance has a monetary value to those who are dependant upon him. It may therefore be

defined as the capitalized value of that part of the earnings of the individual devoted to support the family dependents, business associates and others who benefit from the economic capacity. It is an established fact that a Life insurance policy insures a life in as much as a fire policy insures a house or property. In other words, the active life span of a man is equivalent to the productive life of a physical asset, the projected earnings of man is equivalent to the future returns expected from employment of a physical asset, the projected personal expenditure of an individual is equivalent to the projected depreciation and maintenance cost of a physical asset. The human life value concept postulates that, like a corporation, a working person has capitalized earning capacity over his or her lifetime. Therefore, although everyone is unique and irreplaceable, "each human life potentially has an economic value, which is derived from its earning capacity and the financial dependency of other lives on that earning capacity." Human Life Value is the present capitalized value of a person's net future earnings after subtracting self-maintenance costs, income taxes and life insurance premiums being paid. Conceptually, human life value involves several important concrete elements including the following socio-economic relations and characteristics:- first, is that human life value is the capitalized value of an individual's earning that supports family members, dependant loved ones, and business partners. The value of one life in relation to another is the foundation of life and health insurance. The monetary value of a human life is derived from an individual's talent and the will to put them to productive use. Huebner contented that human life values greatly exceed all property values in importance. Without human life values, there would be no property values. Generally, insurance works on the mechanism of pooled risk sharing. Insurance companies recognize the loss, be it loss of life, health, home, car, business, income or profit and utilize pooled resources to indemnify the loss. By its very nature life assurance encourages the individual to be socially responsible. It emphasizes both the immediate and the longterm benefits of acting responsibly towards dependant individuals and society (Hofflander, 1966).

Secondly, life assurance allows individuals to pool risk and share costs to protect the dependants from impoverishment, without passing on this responsibility to their community and society. This pooling and sharing illustrates that the basic principle of life assurance is cooperation. Life assurance therefore is essentially a social instrument that cares for individuals. However, there are several issues overlooked in the application of the Human Life Value method. First, it presumes that a non-wage-earning spouse has no economic value. Second, it does not take into account that there may be a lump sum needed immediately upon the death of a worker to satisfy certain financial obligations such as loans that may be called in by various creditors. These quandaries have led to the adoption of the second, and generally more widely used, approach to adequately insuring lives, and that is the total needs approach. The Total Needs Approach attempts to quantify how much life assurance would be needed to maintain the surviving loved ones' lifestyle by looking at two categories of need: cash needs and income needs. Cash needs consist of lump sums required at death for such items as final expenses, an emergency fund, a readjustment fund, a home-care fund, a mortgage/debt liquidation fund, and possibly even an education fund. Income needs address the replacement of a wage earner's income for at least their working years, reduced by any available cash resources already in place such as existing life insurance or possibly even savings. The theory of Human Life Value as well as the total needs approach are relevant in the sense that their knowledge helps in the determination of the adequate amounts of life assurance needs, thus providing a sound theoretical foundation with regard to the successful uptake of life assurance products.

*2.1.4 Neo-classical Economic theory*

Under classical economics, the value of a product was thought to depend on the costs involved in producing that product. Goods were distributed in an economy, it was assumed, in the same way that costs were distributed. The problem with this approach was that prices for a product did not always reflect the expected value as indicated by the costs of a product. Something was wrong with the perspective that the cost of a product was expressed in its price, a phenomenon that is explained by differences in 'utility'. Neo-classical economics emerged as a school in macroeconomics during the 1970s. It emphasizes the importance of rigorous micro-foundations, in which the macroeconomic model is built up from the actions of individual agents, whose behaviour is modeled by microeconomics. It refers to a general approach to economics based on supply and demand which depends on individuals or economic agent operating rationally, each seeking to maximize their individual utility or profit by making choices on available information. Neo-classical economics is based on three main assumptions: rationality and self-interest, utility and profit maximization, and full and relevant information.
The first assumption is that people have rational preferences among outcomes that can be identified and associated with value. All agents possess rational expectations. Rationality implies that preferences are rational if they are complete and transitive. That is, the decision maker is able to compare all of the alternatives and that these comparisons are consistent. The decision makers then choose or predict the best alternative. Rational expectations refer to the use of the available information to make the best possible predictions about the future. Neo-classical economists assume that human beings make choices that give them the best possible advantage, given the circumstances they face. Circumstances include the prices of resources, goods and services, limited income, limited technology for transforming resources into goods and services, taxes, regulations and similar objective limitations on the choices they may make. Strictly speaking, they do not assume that real human beings are rational and self-interested persons. Rather, most economists assume that economic systems work as if they consisted of rational and self-interested persons. Rationality and self-interest refer to the average person, where it is assumed that deviations from rational self-interest are random and will cancel out for the system to act as if everyone were rational and self-interested. People are sometimes altruistic, acting on non-self-interested values. But when they do so, they act on their own values, not those of the government, some philosopher or the observing economist. Broader neoclassical economics assumes that people choose in the way that best advances their own values, altruistic or self-interested as those values may be.

The second assumption is that individuals maximize utility and firms maximize profits. Utility maximization implies that rational economic agents make decisions that maximize their satisfaction in consumption. Under profit maximization, the agents determine price and output levels that return the highest profits possible. The third assumption is that people act independently on the basis of full and relevant information. Information relevant for decision making is available to decision makers who make full use of it. There is perfect information such that no economic agent will be left worse off or better off for lack of relevant information for decision making. From the three assumptions above, neoclassical economists have built a structure to understand the allocation of scarce resources among alternative ends. From the basic assumptions of neoclassical economics comes a wide range of theories about various areas of economic activity. For instance, profit maximization lies behind the neoclassical theory of the firm and utility maximization is the source for the neoclassical theory of consumption.

The framework of neoclassical economics is summarized as follows: Buyers attempt to maximize their gains from getting goods, they do this by increasing their purchases of a good until what they gain from an extra unit is just balanced by what they have to give up to obtain it. In this way they maximize utility, the satisfaction associated with the consumption of goods and services. Likewise, individuals provide labour to firms that wish to employ them by balancing the gains from offering the marginal unit of their services (the wage that they would receive) with the disutility of labour itself- the loss of leisure. Individuals therefore make choices at the margin. This results in a theory of demand for goods and supply of productive factors. Similarly, producers attempt to produce units of a good so that the cost of producing the incremental or marginal unit is just balanced by the revenue it generates. In this way, they maximize profits. Firms also hire employees up to the point that the cost of the additional employee is just balanced by the value of output that the additional employee would produce.

The neoclassical vision thus involves economic agents, be they households or firms, optimizing, subject to all relevant constraints. Value is linked to unlimited desires and wants colliding with constraints or scarcity. The tensions and decision problems are worked out in markets. Prices are the signals that tell households and firms whether their conflicting desires can be reconciled. In this study, insurance companies and individual life policy consumers are assumed to have rational expectations that can be identified and associated with value. They are able to compare all alternatives, choosing or predicting the best alternative. Therefore, they make choices giving them the best possible advantage, given the circumstances they face. Circumstances in this regard include; desire to build an estate for ones dependants, ability to meet other financial obligations such as paying school fees, participation in charity, purchase of other consumer goods and services, accumulating savings through other channels, and protection against the effects of premature death among others. In addition, life policyholders seek to maximize utility preferring higher benefits (theory of consumption) while insurance companies maximize profits through minimization of costs by way of lower costs and increased output (theory of the firm). While individual life policyholders would make decisions that maximize their satisfaction, the insurance companies would determine premium levels and products that return the highest profit possible. Finally, both individual life policy consumers and insurance companies are assumed to act independently on the basis of full and relevant information, with none being worse or better off for lack of relevant information for decision making.

*2.2 Literature Review – Previous Empirical studies*

The research area on the determinants of demand for insurance products has been a hot area of interest for quite a number of business scholars globally. Coupled with the fact that the insurance business is not well understood by most lay people in the economy, this has remained an area with a lot of scholarly interest. For instance, (Gao, 2003) did a study in China entitled, "The determinants of demand for Life assurance in an emerging economy – the case of China" The objective of the study was to examine key determinants of demand for life insurance in China with a view to explaining the rapid growth of the life insurance industry in China since its economic reform in 1978.The hypothesis was that life assurance demand was related to the level of income, education, urbanization and inflation. The investigation was done using a time series data analysis. The measurement of the variables was done as follows: The dependent variable was measured using two different variables, that is, quantity demanded and inflation. The quantity demanded of Life assurance was represented by the average amount of individual life assurance premium per person and the premium expenditure per worker was given by the total life premium income divided by the economically active population. Another variable used

to measure the dependent variable was inflation, and this was measured as a percentage of the growth rate of life premium income overtime. The independent variables included income, education, urbanization and inflation. The income variable was estimated by GDP per capita deflated by inflation using the consumer price index (CPI) with the base year of 1990. The level of education was quantified by the number of the total graduates in the institutions of higher learning. The degree of urbanization was defined as the percentage of population living in areas under the administration of a city or a town. Inflation was measured as the percentage of annual price changes in the consumer price index overtime.

In that study, a general multiple regression model was designed to test the relationships between the level of life insurance consumption and the level of income, the level of education and the degree of urbanization, which was expressed as a log linear equation showing a dependent variable Qt was related to a number of explanatory variables Yt, Et, and Rt: $LnQt = \beta 0 + \beta 1 \ln Yt + \beta 2 \ln Et + \beta 3 \ln Rt + \varepsilon t$
Where Qt denoted life assurance premium expenditure in period t, Yt denoted per capita income in the population under study, Et denoted the level of education of population under study, Rt denoted the urban population under study, and εt was a random error term. The parameter β0 was an intercept. The coefficients β1, β2, β3 denoted the unknown parameters. In terms of the effect of inflation, the study presumed that the life assurance premium expenditure was a function of current and past inflation rates and after a certain year of the lag length, the effect of inflation on life assurance purchasing decision was exhausted. The study revealed that the demand for life assurance in China was determined largely by income levels, level of education and urbanization as the regression analysis of the relationships showed that these variables were positively and statistically significant, except the inflation variable. The fact that the study was done in a foreign country causes the need to do a similar study locally to establish the possibility of generalization of results.

(Zhang, Hu, & Zhu, 2009) analyzed the efficiency in life assurance industry in China with the objective of examining the efficiencies of China's foreign and domestic life assurance providers and to explore the relationship between the ownership structure and the efficiencies of the insurers while taking into account other firm attributes. The Data Envelopment Analysis(DEA) was used to estimate the efficiencies of the life assurers based on a panel data collected for a five year period between 1999 and 2004. DEA involves the use of linear programming methods to construct a non-parametric piece-wise surface over the data. The study adopted a previously proposed input-oriented model that assumed constant returns to scale (CRS), and modified it into a CRS DEA model by assuming that data existed on K inputs and M outputs for each of the N firms sampled. For the i-th firm this was represented by the column vectors Xi and Yi. The KxN input matrix X and the MxN output matrix Y represented the data for all N firms.

The study used Tobit model due to its ability to handle censored data, which are typically bound between 1 and 0. In the model, the dependant variable was the scores of total technical efficiency in terms of pure technical efficiency (PTE) and Scale efficiency (SE). The independent variables in the model were the logarithm of market power, ownership, human capital, distribution channel of the life assurance products, the vintage of the company in terms of number of years of operation in China, and finally, the location of the firm's headquarters. Five dummy variables were used to represent the city where the headquarters were located and

one city, Shanghai was used as the reference. The sample included all Chinese insurance firms transacting life assurance between the years 1999 and 2004.The study revealed that the average efficiencies of all the life assurance firms in China were cyclical. Both the technical and scale efficiencies reached their peaks in 1999 and 2000 and gradually reduced for the period under examination until the year 2004 the average efficiencies improved again. The gap provided by this study is that it was done in 2009, many changes have taken place in the area of technology and other areas that may render the findings obsolete , therefore there is need to carry out a similar study taking into account the technological changes as well.

Akotey, Osei, & Gemagah (2011) carried out a study in Ghana on the demand for Micro-insurance in Ghana. The objective of the study was to identify the factors influencing the demand for micro-insurance services among the informal sector workers of Ghana who were perceived to be vulnerable to the various risk exposures in the economy. The study adopted a quantitative technique based on primary data sampled from 100 informal sector workers from four major market centres in Accra, Ghana (Akotey, Osei, & Gemagah, 2011).

In that study, (Akotey et all, 2014), probit regression model was used for the empirical investigation and the results showed that premium flexibility, income level, and nodal agency were significant determinants of microinsurance demand. Further that knowledge on insurance matters, level of trust and marital status also influenced the demand for micro-insurance positively and significantly. However, the study revealed that formal education was not a significant determinant of micro-insurance demand. This is in contrast with the findings of Gao (2003), who in his study in China on the determinants of life assurance, found out that educational level was positively and statistically significant in the determination of demand for life assurance products. The difference could be as a result of the fact that the need for life assurance is more understood by people with formal education than with ordinary masses including informal sector workers who may have different visions and ambitions in life and may have little or no regard for whatever life assurance purports to achieve in one's life, in other words they may lack the behest motives as it were. The gap here is that the study focused on micro-insurance and on informal sector workers and this may make it difficult to generalize the findings to other insurance products and particularly life assurance policies that have provide more than just protection.

Another study was done in Tunisia by (Hemrit & Arab, 2012), on frequency and severity of operational losses in Tunisian insurance industry. The objective of the study was to examine the determinants of operational losses in the insurance companies. The methodology involved the use of econometric models. The study had five hypotheses as follows: H1: There is an effect(but without any preconceived sign) of the market share of a business line on the frequency and severity of operational losses, H2: the severity and frequency of operational losses tend to increase if the business-line is part of a company characterized by a variety of insurance products and vice versa, H3:Profit is negatively associated with the frequency and severity of operational losses, H4: the human factor has an effect(there is no evidence provided in advance) on the frequency and severity of operational losses, and finally, H5: the rate of geographical positively influences the frequency and severity of operational losses.

In that study, the models that explain operational losses were organized around five regressions as follows: The first regression model was on internal fraud and external fraud, the second

model was on business disruption and systems failures, the third regression model was on clients, products and business practice, execution ,delivery and process management, the fourth regression model was on employment practices and workplace safety and finally the fifth regression model was on all the other operational risk events. The study revealed that market share and geographical location had a positive and significant influence on the frequency and severity of operational losses while variety of insurance products had a negative relationship on the frequency and severity of operational losses. This study, although not directly dealing with the determinants of life assurance demand, its methodology would provide a useful insight in the development of a suitable model for examining the determinants of life assurance products. The gap established here relates to the fact that the study was done in a foreign country therefore its findings may not necessarily be able to be reflected in Kenya since the risk exposures may not be similar. Therefore there is a need to do a similar study locally.

Yu and Chen(2014), did a study in Taiwan on developing life insurer-insurance intermediary relationships. The objective of the study was to investigate the influential factors of the antecedents of relationship quality and long term relationship orientation between the stakeholders of insurance marketing or distribution channels. In-depth interviews were conducted in a survey to examine the long term relationships between insurers and insurance intermediaries. The study had three hypotheses as follows: H1: the antecedents of relationship quality (such as customer orientation, expertise, similarity, contact intensity) are positively correlated with relationship quality, H2: relationship quality (in terms of trust, satisfaction, and commitment) is positively correlated with long term relationship orientation, and H3: the antecedents of relationship quality (customer orientation, expertise, similarity, contact intensity) are positively correlated with long term relationship orientation. The study used both qualitative and quantitative research methods through the administration of ten qualitative in-depth interviews which were conducted before the survey to examine the measures used in order to evaluate their content adequacy and the validity of items. The draft questionnaires were pre-tested readability and clarity with the undergraduate business students. The main survey was carried out using 503 questionnaires out of which 275 responses were received and after filtering invalid ones, 230 were valid thereby yielding an effective response rate of about 46%. Three major constructs were measured in this study , thus, antecedents of relationship quality, relationship quality and the long term relationship orientation of insurance intermediaries with life assurers. The questionnaire items were measured on a Likert scale ranging from 1=strongly disagree to 5 = strongly agree. The statistical approaches used in the study were confirmatory factor analysis (CFA) and SEM using AMOS 18 and SPSS 12 as the analytical tools. CFA was preferred over exploratory factor analysis because it is theory based, accounts for measurement error, and tests for unidimensionality. When the standardized factor loading SFL ranges between 0.50 and 0.95, the measurement model achieves basic goodness of fit. The composite reliability (CR) of the latent variables was used to measure the reliability of latent variables. The higher the CR value, the more effectively the entities that constitute the insurance marketing channel construct reliability of a specific latent variable can be determined (Yu & Chen, 2014).

The study revealed that the antecedents of relationship quality in terms of customer orientation, expertise, similarity and contact intensity had a positive effect on relationship quality. Further that relationship qualities such as trust, satisfaction, and commitment, also had a positive effect on the long term relationship orientation. The study findings did support the three hypotheses

that were put forward in the study, thereby meeting the objectives of the study adequately. The identified knowledge gap in this study is that it was carried out in a single country (TAIWAN) and may not be generalizable to life assurers and insurance intermediaries in other countries. Secondly, the analysis performed in the study was cross-sectional and not longitudinal. Also, the statistical tools used are no longer current, AMOS 18 and SPSS 12 have since been renderd obsolete by newer updated versions that could yield superior results. There is a need therefore to do a similar study that would take care of the mentioned inadequacies of the study, preferably, in Kenya for generalization purposes.

According to (Mahdzan & Victorian , 2013), in their study of the determinants of Life Insurance demand: a focus on saving motives and financial literacy, the theoretical underpinnings on life insurance demand date back to the 1960s with works by Yaari in which theoretical frame works for life insurance demand were developed, and the demand for life insurance was attributed to a person's desire (or a "joy of giving") to bequeath funds to dependents and provide income for retirement. They further asserted that it was posited that the demand for life insurance is a function of wealth, expected income over a person's lifetime, interest rates, the cost of life insurance policies (e.g. administrative costs) and the assumed subjective discount on current over future consumption. The main objective of the study was to investigate the determinants of life insurance demand among life insurance policyholders of five major life insurance companies in Kuala Lumpur, Malaysia. From a sample size of 259 individuals, the study analyzed the influence of demographic variables, saving motives and financial literacy, on life insurance demand. To determine the relationship between the demographic factors and life insurance demand one way ANOVA tests were conducted. The relationship between financial literacy and saving motives (precautionary, bequest, life cycle and wealth accumulation motives) with life insurance demand was then analyzed using a multiple regression. The results of the study revealed that demographic variables and saving motives were significantly related to life insurance demand. Financial literacy, however, was found to be insignificant in determining life insurance demand.

*3. Conclusion*

Previous studies established quite a number of similar and different results in studies carried out in different parts of the world as well as in Kenya. For instance, (Mahdzan & Victorian , 2013) in their study of the determinants of life insurance demand, focused on saving motives and financial literacy, asserted that the demand for life insurance was attributed to a person's desire (or a "joy of giving") to bequeath funds to dependents and provide income for retirement. They further asserted that the demand for life insurance is a function of wealth, expected income over a person's lifetime, interest rates, the cost of life insurance policies (e.g. administrative costs) and the assumed subjective discount on current over future consumption. The study investigated the determinants of life insurance demand among life assurance policyholders of five major life insurance companies in Kuala Lumpur, Malaysia and established that demographic variables and saving motives were significantly related to life insurance demand. They used one way ANOVA tests to determine the relationship between the demographic factors and life insurance demand. These findings were in agreement with those established by Mahdzan and Victorian in their study carried out in France in 2013 in which they sought to investigate the determinants of Life insurance demand among Life policy holders of five major Life insurance companies operating in Kuala Lumpur, Malaysia.

However, in the Malaysian case, the focus was more on the consumer attitudes and their savings motives.

The major factors that determine the demand for life assurance products include, premium flexibility, income levels, knowledge of insurance issues marital status expectations or trust, socio economic factors,,cultural issues, regulatory presence among others. For instance, Akotey et all 2011, who carried out a study in Ghana on the determinants of demand for micro-insurance in Accra, Ghana and established that insurance knowledge among other factors influenced the demand for micro-insurance positively. The same findings are supported by (Kamau, 2013) who found out that the nature of insurance industry, income, cost of insurance and demographic factors contributed negatively to the insurance penetration in Kenya and further that existing regulatory framework was contributing positively to the uptake of insurance services (Kamau, 2013). Life assurance is a significant part of the insurance business besides general insurance (Non-life) and it continues to contribute immensely towards mitigating the risk of premature death as well as providing an avenue for asset accumulation for treating the risk of longevity.

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