

Exploring Theory of Planned Behaviour for Understanding Agricultural Informationutilizationby Rural Farmers in Katsina State

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Abstract: *This paper explores the Theory of Planned Behaviour for understanding agricultural information utilization by rural farmers in Kaduna State. In this paper, agricultural information is defined as data for decision making and a resource that is essential for successful farming. The paper further discusses the categories of agricultural information. The paper described The Theory of Planned Behaviour as a framework to predict and understand human behaviour. The three construct of the theory were discussed. The paper summarized some of the previous studies that adopted the Theory of Planned Behaviour to explain the intentions to comply with a particular behaviour. The paper further applied the three constructs of theory of planned behaviour to agricultural information utilization to ask some questions. The paper concludes that there exists a problem which hinders farmer's decision to utilize agricultural information that resulted to low productivity.*

I. Introduction

Agricultural information provision is one of the basic components of rural development programmes in developed and developing economies. Information is crucial for increasing agricultural production and improving marketing and distribution strategies (Oladele, 2006).Improvement in agriculture will facilitate poverty reduction strategies and hence improve people's livelihoods. An improvement in agriculture will need to be well organised with a functional integrated information delivery system, supported by efficient national collaboration programmes (Kalusopa, 2005). In order to improve agriculture, small-scale farmers need information. Olorunda and Oyelude (2008), add that information is essential for planning, decision making and the execution of programmes. The value of information however can only be realized if it is understood, accessed and used.

Moreover, Easdown and Starasts (2004) argued that it is only when agricultural information is valued will farmers seek and use it. It is only when it is valued will they consider paying for it. They also noted that farmers' value contextualized information that has been validated by the experience of others and can be applied to their own situation. This can be done through interaction with the receiver of information. Studies in Nigeria revealed that agriculture cannot be improved if the practitioners, especially small-scale farmers, are not aware of information sources and their needs that will help to bring improved knowledge and technology of farming to the doorsteps of the farmers Studies have shown that there is still low level of Agricultural information utilization in Northern Nigeria, most especially in rural areas in kaduna state (Radhakrishna, 2007, Invwieri 2007, Demiryurek, et al. 2008, Opara 2008, Oladele, 2011). That is why (ADP 2006) assert that, this could be attributed to poor communication channels, inappropriateness of the information, characteristics of information providers. Invwieri (2007) opined that, rural people (farmers) who are mainly illiterate require access to appropriate information to be able to make decisions and participate fully in the national development processes, including agriculture.

Rural farmers in kaduna State have not been able to record great successes in agricultural production due to underutilization of agricultural information provided to them, because of some factors like socio-economic, socio-cultural and institutional factors (Ekumankama 2002). FAO (2008) and Rehman (2010) reported that Northern Nigeria agriculturalproduction is much lower than many other countries ofthe world. Similarly, Abbas *et al.* (2008) argued that lack ofinformation adapted to local needs and lack of technicalknowledge at farm level are the principal factors for thelow yield and static agricultural production in northern Nigeria.

Concept of Agricultural Information

Agricultural information creates awareness among farmers about agricultural technologies for adoption. According to abbas et al. (2008) defines agricultural information as the data for decision-making and a resource that must be acquired and used in order to make an informed decision. Opara (2008), agricultural

information provides the data used for decision making. That is why Adefuye and Adedoyin (1993) suggested that for a steady flow of accurate understandable and factual agricultural progress, farmers must know, and act in accordance to agricultural information. Agricultural information is needed for overall development of agriculture for the improvement of living standard of farmers.

. Opara (2008) reports that agricultural activities can arguably be improved by relevant, reliable and useful information and knowledge. Aina (1995), Mooko and Aina (2007) have reported in their research findings that agricultural information is an essential recipe for successful farming. One therefore sees that these same recipes can be used by Nigerian famers to increase productivity. However, information *per se* cannot increase productivity unless farmers are provided with the right type of information and at the right time, using the right channels and with all other necessary components in place, like telecommunication facilities, good roads, education, good agricultural policies.

Categories of Agricultural Information

Information generation is a process of creating, developing and communicating ideas which are abstract, concrete or visual. It is important to emphasize that the type of information generated revolve around scientific, commercial and legal information (Kaniki, 1995; Aina, 1995; Ballantyne, 2008; Demiryurek et al; 2008).

Scientific Information

Generally, agriculture is interdisciplinary in nature. For agriculture to be fully developed, farmers need information from different disciplines. Scientific information is one of the innumerable examples which are generated from universities and research institutes. In India, for instance, Rao, (2007), and Chandrasekhar et al. (2010), opine that agricultural information in India is mainly derived from universities and research institutes. It includes scientific information which deals with research and development works carried out in universities and research institutes. Scientific information is aimed at providing information on new crops varieties, their requirements, and technical assistance during growing season. The characteristic of this information relates with climate, weather, drought and water stress periods, water sources, quality and availability..

Commercial Information

Commercial information is another type of information generated by research institutes as well as the universities. This information deals with price control, price of fertilizers, price of seeds, and sale of agricultural products. Maru (2008) and Renwick (2010) in separate studies carried out in India and the Caribbean respectively reported that research institutes are behind the generation of commercial information that is related to markets. This type of information is related to production, productivity and profit enhancement. It therefore covers information on commodity price, food quality and safety as well as labelling information.

Legal information

These are generally laws grouped under the heading ‘agricultural laws’, that relate to the production activities, as they are carried out in a commercial setting (Kaniki,1999).There are numerous Nigerian statutes that subsidized, regulate or otherwise directly affect agricultural activity. These include any law promulgated by either a State, federal or local government. The laws may deal not only with plants and animals but also with land use, environment rules, and the use of food products. Hence, with the increasing sophistication of farming process, issues of intellectual property, trade, finance, credit and generally commercial transaction often arise. All legislations that affect agriculture such as land tenure, the production, distribution and sales of agricultural produce come under this category of legal information (Aina, 1995).This type of information will be the domain of extension workers, policy makers and farmers.

From the foregoing, it could be said that farmers wherever they are, require diverse information, whether scientific, commercial or legal as long as that information hinges on the success of what they do. Consequently, any farmer who sells his produce will need commercial information, in the same way that he or she will need information about the weathers oil, buyers, loan facilities, etc. Therefore universities and other institutes which produce interdisciplinary information are very crucial to farmers in Africa who need different information to improve yields and production.

Problem Statement

The importance of agriculture to the development of a nation cannot be over emphasized. This is because the growth and development of a nation is closely linked to its ability to feed itself adequately without relying on import (Adebo and Ewuola, 2006).This is why the Federal Government of Nigeria is spending about N9.874 billion annually in its budget to agricultural sector (Obasanjo,2004). Also, Government at all level has made several efforts in boosting agricultural production through the establishment of universities and research

institutes in Nigeria. The universities and research institutes strive to determine the information needs of the farmers, conduct researches and the findings are disseminated to the farmers through various means such as Billboards, Radio, Television, Newspapers, Workshops, Seminars, and Public Announcements etc. According to Kalusopa, (2005) the goal of information to farmers is to ensure that increased agricultural production is achieved, thus facilitate poverty reduction strategies and hence improve peoples' livelihoods by stimulating them to use it.

However, despite these laudable investments by Governments and NGOs, Obadan (2007) lamented that "Nigerian agriculture is still plagued with low productivity, meagre income and low savings". The central Bank of Nigeria (2009) also observed a geometric decline in agriculture contribution to Gross Domestic Product (GDP). Most of the foods in Nigeria are produced by subsistence farmers. Meanwhile, the population of Nigeria is increasing at geometric rate while agricultural production is growing at arithmetic rate. This has led to a situation where food is no longer a cheap commodity.

This situation therefore, compelled the researcher to speculate whether these anomalies could be due to farmer's attitude or behaviour towards the agricultural information? Or could it be attributed to the influence of their co-farmers as they interact with one another in their different Clubs and Associations? Or could it be as a result of their perceived easiness or difficulty in the access and use of agricultural information?

It is in view of the above that the researcher intends to explore the Theory of Planned Behaviour (TPB) for understanding agricultural information utilization by rural farmers in KADUNA State

Theory of Planned Behaviour

The TPB was set up by Ajzen's in 1991. It was actually developed to predict human intentions to exhibit certain behaviour. The theory of planned behaviour (TPB) is a widely endorsed model to understand behaviour in applied social psychology. It is one of the most influential and cited models for the predictions of human behaviour (Ajzen's, 2011). The TPB States that the more a person intends to perform behaviour, the greater the likelihood that the behaviour will actually be performed. The strength of a person's intention is determined by three factors, that is attitude, subjective norm, and perceived behavioural control (PBC) The theory helps to understand many problems faced by modern societies such as sexual assaults, hate crimes, overconsumption, traffic congestion, and urban poverty (Oskamp, 1998).

The purpose of the theory of planned behaviour is to predict and understand consumer behaviour. According to the theory, a person's behaviour can be predicted by intention, which is predicted by the person's attitude toward the behaviour, subjective norms, and perceived control (Ajzen's, 1991). An attitude toward behaviour is defined as one's positive or negative evaluation of the particular behaviour based on the person's beliefs. A subjective norm is a person's perception of whether significant referents approve or disapprove of the behaviour. Perceived control is the perceived difficulty of performing the behaviour

Attitudes

Attitude toward the behaviour is a person's overall evaluation of the behaviour. It reflects the individuals' positive or negative evaluations of performing the behaviour.

Attitudes is a product of behavioural beliefs-an overall evaluation of whether the behaviour is good or bad and expectations about the likelihood of certain outcomes that will come from performing the behaviour. It is also a degree to which a person has a favourable or unfavourable evaluation of the behaviour of interest. It entails a consideration of the outcomes of performing the behaviour.

Subjective Norms

Subjective norm is determined by the perceived pressure or wishes of important others. Subjective norms are a person's own estimate of the social pressure to perform or not perform the target behaviour. Subjective norms are assumed to have two components which work in interaction: beliefs about how other people, who may be in some way important to the person, would like them to behave (normative beliefs). Subjective norms are attitudes and behaviours that are considered normal, typical or average. They determine others' approval or disapproval of the behaviour.

Subjective norms can be described as the perceived social influence to engage or not to engage in behaviour and are products of normative beliefs-whether one believes that significant others think he or she should perform the behaviour. This is based on one's belief regarding the evaluation of others weighted by one's motivation to comply.

Perceived Behavioural Control (PBC)

Perceived Behavioural Control (PBC) refers the person's beliefs about the easiness or difficulty in performing the behaviour. It is also the belief of the amount of direction one has over the environment. It

suggests if the task will be easy or difficult to accomplish. Perceived behavioural control is taken to be a function of the person's beliefs about the resources and obstacle relevant to performance of the behaviour.

Previous Studies that Adopted Theory of Planned Behaviour (TPB)

Several scholars from different fields of studies adopted theory of planned behaviour. This section discussed some of the previous studies that adopted theory of planned behaviour to explain the intentions to comply with a particular behaviour.

A study conducted by Kelly (2008) conducted a study titled theory of planned behaviour, identity and intentions to engage in environmental activism. The research question asked in this study was: what determines whether individuals engage in active attempts to protect the environment? The research method used was quantitative; the instrument used for data collection was questionnaire survey that measured standard TPB constructs as well as environmental group membership and self-identity as an environmental activist. The findings of this research revealed that greater involvement in environmental groups and a stronger sense of self as an environmental activist were associated with stronger intentions to engage in environmental activism. Recommendation of the study gives insight into the factors influencing environmental activism, a set of behaviours that has received relatively little attention in the research literature, despite the potential for activist behaviour to bring about significant positive change.

Baker and White (2010) conducted a study examining the use of the Theory of Planned Behaviour to predict adolescents' use of social networking. The introduction of this study was to assess the effectiveness of the Theory of Planned Behaviour in predicting college students' use of social networking sites (SNS). The research questions asked in this study were: How does users evaluate social networking site as a factor that build a strong relationship? How easy or difficult users find it to maintain a relationship through the social networking site? The study use qualitative methodology, using a questionnaire as instrument for data collection. Their study found support for the TPB's components of attitude, perceived behavioural control, and group norms in predicting intentions to use social networking sites. They then found support that intentions predict behaviour.

Application of Theory of Planned Behaviour to Agricultural Information

The theory of planned behaviour (TPB) constitutes three constructs. Each of these constructs plays a role towards the intent of the decision to utilized agricultural information. The constructs of theory of planned behaviour and how each is applied in the decision to utilize agricultural information among rural farmers is discussed in the following sections:

Attitudes

Attitudes is a product of behavioural beliefs-an overall evaluation of whether the behaviour is good or bad and expectations about the likelihood of certain outcomes that will come from performing the behaviour. It is also a degree to which a person has a favourable or unfavourable evaluation of the behaviour of interest.

This construct can be use to ask question such as: How does the farmers attitudes affect their ability to evaluate the outcome of agricultural information being utilized? Does a behavioural belief of rural farmers influence their understanding of agricultural information? Does thse utilization of agricultural information by rural farmers increase their productivity?

Subjective norms

Subjective norms can be described as the perceived social influence to engage or not to engage in behaviour and are products of normative beliefs-either one beliefs that significant others think he or she should perform the behaviour.

This construct can be use to ask question such as: How does the rural farmers Associations influence their choice and use of agricultural information in KADUNA State? How does an extension agent influence rural farmers in KADUNA State to utilize agricultural information provided to them? How does co-farmers influence support the utilization of agricultural information by rural farmers in KADUNA State?

Perceived behavioural control (PBC)

Perceived Behavioural Control (PBC) refers the person's beliefs about the easiness or difficulty in performing the behaviour. It is also the belief of the amount of direction one has over the environment. It suggests if the task will be easy or difficult to accomplish.

This construct can be use to ask question such as: How does the perceived easiness or difficulty of agricultural information provided to rural farmers in KADUNA State influenced their frequency of its utilization? How much effort is involve to rural farmers in KADUNA State to access and utilize agricultural information? How easy or difficult would it be to rural farmers to interact with an extension worker?

II. Conclusion

Based on the previous discussions, it could be deduced that there exist a problem which hinders rural farmers' decision to utilize agricultural information. This situation could be perhaps attributed to the farmer's traditional beliefs, subjective norms and poor communication channels. Because when any of the above listed issues arises, there could be tendency to experience low productivity despite the abundance agricultural information available.

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