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THE PERCEPTION OF SMALLHOLDER FARMERS TOWARD MICRO-INSURANCE AS A RISK COPING STRATEGY IN ZIMBABWE

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Abstract Microinsurance is an important risk mitigation strategy in smallholder farmers' agricultural enterprises that are faced with intensifying climate change and unpredictability. This study analysed the perceptions of smallholder tobacco farmers in Zimbabwe's tobacco-growing regions of the Mashonaland Provinces towards microinsurance as a risk coping strategy given the risks of hailstorms, droughts, and long-dry spells in the rainy season. A qualitative phenomenological study was conducted with 13 purposively selected small-scale tobacco farmers. The study employed unstructured interviews to collect data from the participants. The findings of the study suggest that smallholder farmers have a positive perception of microinsurance, against the general view that they have a negative attitude. The study found that other risks with which smallholder farmers are faced and their immediate risk response, tolerance and disposition may have a distorting effect on the smallholder farmers' perceptions and attitude towards microinsurance. It was further found that the perception of the smallholder farmers was also influenced by whether the farmers had other sources of income, whether they previously had experienced crop losses due to weather-induced risks and the general level of education of the smallholder farmer. It was also found that most of the micro-insurance services offered were mainly supply-side driven rather than demand-side driven and as a result, most of the products were not farmer-centric. New product development, farmer-centric insurance service offerings and general farmer sensitisation on the need for microinsurance were recommended.

Keywords: *micro-insurance, perception, risk, risk-coping strategy, smallholder farmers*

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INTRODUCTION

The unpredictability of the climatic conditions, which results in unanticipated floods, hailstorms, and droughts, cause serious production losses and exacerbate food insecurities, especially in Sub-Saharan Africa (SSA), where agriculture is a dominant economic sector (Tadesse, Shiferaw & Erenstein, 2015; Makaudze & Mirnada, 2010). It accounts for the major share of SSA's Gross Domestic Product (GDP), total exports, and employment (Gine, Menand, Townsend, Vickery, 2012). Hence, agriculture can potentially spur economic growth and reduce poverty. Salami, Kamara & Brixiova (2010) postulate that the agriculture sector is predominantly smallholder farmer-driven, and it contributes more than two-thirds of the total world agricultural output.

Given the importance of agriculture as a potential source of investment opportunities and income growth the world over, several innate agricultural risks remain a fundamental part of the sector (Gine, et al., 2012; Salami, et al., 2010). Rainfall unpredictability and other weather-related hazards are a significant part of the risks with which farmers are confronted, given the high correlation that exists between climatic factors and the performance of the agricultural sector (Njue, Kirimi, & Mathenge, 2018).

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These extreme weather events are exacerbated by climate change, thereby undermining further the livelihoods of smallholder farmers, most of whom typically rely on rain-fed agriculture (Barrett, Bachke, Bellemare, Michelson, Narayanan & Walker, 2012; Barnett, Barnett & Skees, 2008). Di Falco and Chavas (2009) argue that, because most agricultural activities are mainly rain-fed, changes in the amount and timing of rainfall have a severe negative impact on total agricultural productivity and ultimately on food security. They note that there are limited irrigation facilities for most smallholder farmers. In light of the over-reliance by smallholder farmers on rain-fed agriculture, rainfall unpredictability, climate change and variability are rapidly threatening sustained food security, agricultural productivity, and economic development.

Several studies (such as Mutandwa, Hanyani-Mlambo & Manzvera, 2019; Berger, Troost, Wossen, Latynskiy, Tesfaye & Gbegbelegbe, 2017; Di Falco & Veronesi, 2014; Milman & Arsano, 2014; Conway & Schipper, 2011) have found that smallholder farmers are the most vulnerable to, and affected by, climate change and variability. Previous studies have also conclusively found that climate change is one of the biggest factors affecting smallholder farmers' ability to obtain higher yields and increase productivity in SSA (Arbuckle, Morton & Hobbs, 2015; Deressa, Hassan & Ringler, 2011; Hassan and Nhemachena, 2008). In SSA, climate change has also worsened the socio-economic livelihoods of smallholder farmers as it has affected food self-sufficiency, household income and infrastructure (Elum, Modise & Marr, 2017; Limantol, Keith, Azabre & Lennartz, 2016; Mugari, Mwakiwa, Mutambara, Gwata & Jiri, 2016; Opiyo, Wasonga, Nyangito, Mureithi, Obando & Munangi, 2015).

Farming operations are often marred by constraints limiting their economic potential (Murava, 2018). Most agricultural assets are exposed to the vagaries of the weather. Weather-induced hazards and risks such as dry spells and floods, hailstorms, and strong winds, which can potentially affect crops, are set to become a regular occurrence and with increased severity, given the climatic changes (Murava, 2018; Mago, 2014). Risk factors with which smallholder farmers include crop diseases, droughts, fire, floods, hailstorms, pests, and theft. These risks negatively impact agricultural productivity and the livelihoods of those households that depend on agriculture for their welfare (Tadesse, et al., 2015). Sandmark, Debar and Tatin-Jelarin (2013) suggest that efforts to increase access to agricultural insurance products by farmers (especially smallholder farmers) are substantially more significant now than ever. Given the multi-faceted risks with which smallholder farmers are faced, most researchers believe that agricultural insurance is an important mechanism through which farmers can mitigate and manage the risks inherent in carrying out an agricultural enterprise in the face of climate change.

The World Food Programme (WFP, 2013) argue that agriculture, as a business, is risky, especially in developing economies, where smallholder farmers have to deal with several different risks such as weather-related risks, production, market, and political environment risks. This is against the backdrop that agriculture is the mainstay and major source of livelihood for up to two-thirds of the world's population in the developing world (WFP, 2013). The IFAD (2010) shows that the interest in, and attention on, agricultural insurance drastically increased due to the pressures of climate change and concerns for food insecurity given the rising demand for food and commodity price volatility.

Traditionally, smallholder farmers have devised an assorted range of risk avoidance and reduction mechanisms, for example, using drought-resistant seed varieties, reduced input application, and diversifying crop or income portfolios to insure themselves against these risks (Njue, et al., 2018). However, these traditional risk mitigation strategies were found to be inadequate as they failed to fully cover the smallholder farmers from the resulting economic shocks, thus leading them into a poverty circle (Sundar & Ramakrishnan, 2013). Thus, risk coping strategies through formal microinsurance was found to be a suitable mechanism for transferring agricultural risks to third parties such as an insurance company. This helps smallholder farmers to eliminate the fear of agricultural risks and encourages investment. Secondly, it spreads co-variate risks (for example, disease outbreaks and droughts over a wide geographical area) through risk-pooling that individual smallholder farmers and their existing risk-sharing initiatives, such as farmer cooperatives, were incapable of.

Microinsurance has the potential to mitigate poverty as it reduces the poor's vulnerability through the mechanisms of pooling of risks and absorbing shocks (Marr, et al., 2016). Churchill (2007) defines microinsurance as the means to protect low-income people against identified risks in exchange for regular premium payments that are

proportional to the probability and cost of the risk involved happening. Cohen, *et al.* (2005) state that, micro insurance is formal insurance that is tailor-made to clients that have inherently and widely diverse income and risk profiles from those targeted by conventional insurance schemes. Microinsurance is generally characterised by one distinguishing feature, namely that the target clientele is the low-income population with an income that is below $2 per day (World Bank, 2012). Hammond, *et al.* (2007) aver that the bottom of the pyramid (BoP) market, which makes up 72 per cent of the world population has a market potential of US$5 trillion. Secondly, microinsurance provides low-priced, low-end products targeted at the poor. Adams, et al. (1998) argued that crop microinsurance improves the standard of living of poor smallholder farmers who are likely to face potential climate-induced risks through *ex-post* consumption-smoothing and *ex-ante* giving them chance to undertake other more productive strategies.

There is a difference between risk-coping and risk-management strategies (Alderman & Paxson, 1992). Davies (1996) avers that the main goal of risk management is to reduce the high risks of income generation *ex-ante*, for example, through livelihood broadening. Alderman and Paxson (1992) postulate that risk-coping strategies were those that relate to self-insurance, for example, *ex-ante* precautionary savings and *ex-post* short-term strategies in response to a shock. Hanke and Barkmann (2017) state that most of the risk-coping or mitigation strategies by smallholder farmers are mainly aimed at maintaining the minimum level of food consumption for a household, health needs, and/or social status. These *ex-post* risk mitigation strategies include the sale or consumption of assets, reliance on gifts and loans from family members or neighbours, reduction of food consumption level, reallocation of labour, and provisional outmigration of household members (Adams, Cekan, & Sauerborn, 1998). Risk-pooling is an ex-ante mechanism through which the poor can pool their resources into a common pool against such eventualities happening, while the shock-absorbing is an ex-post mechanism designed to allow the farmer to recover from in the event of an eventuality insured against happening.

Heenkenda (2012) suggests that microinsurance is an important tool for risk mitigation among vulnerable farmers in developing countries. The main aim of microinsurance is to reduce the risk of vulnerability to shock effects. This mechanism helps the poor, particularly smallholder farmers, to foster development and alleviate poverty, through consumption and income-smoothing. Thus, microinsurance helps the poor to mitigate their vulnerability as they replace the unpredictability of the future outcome in exchange for them making regular, small payments for getting a significant level of assurance. According to Chandhok (2009), micro insurance is an important mechanism for eradicating poverty. Eradicating poverty leads to the development of a country. Moreover, London *et al.* (2010) suggested that the lack of access to insurance services by the BOP smallholder farmers is one of the biggest financial constraints they are faced today. Hamid, *et al.* (2011) found a positive relationship between microinsurance and poverty reduction. On the other hand, Kovacevic and Pflug (2011) indicate that access to microinsurance by the poor, through risk cover for catastrophic shocks, potentially reduces the probability of the poor falling into the poverty trap.

For a smallholder farmer, the effects of a shock event happening have a short-run and long-run effect on their household. While the immediate impact of a shock on a poor household can be dealt with using other risk-mitigating strategies such as utilising savings or accessing credit from a microfinance institution (MFI), these options are costly to the smallholder farmer. The long-run effect, such as disposing of high-value assets, is sometimes extremely devastating to smallholder farmers. Gerrit (2014) claims that micro-insurance was initially designed to provide life cover against default occasioned by death in micro-finance contracts. Given the important role that microfinance plays in low-income households, particularly smallholder farmers in the provision of financial services. Microinsurance is most important to smallholder farmers as they are vulnerable to various shocks, hence the need for protection (Omondi, 2017).

Understanding smallholder farmers' perceptions of microinsurance as a risk-coping strategy is important from two perspectives. Firstly, it can influence how insurance companies design their microinsurance products for smallholder farmers and improve upon the current risk mitigation strategies based on a farmer-centric point of view. Secondly, most of the studies have employed a quantitative approach to analyse the hard data without the need to clearly understand the individual feelings of the farmers towards microinsurance.

RESEARCH METHODS

Study area

The study was conducted in three tobacco-growing regions of Mashonaland Central, East and West Provinces which are to the north, northeast and north-west of Zimbabwe, respectively. These provinces were chosen as most of the tobacco growers are concentrated in this region. The tobacco farmers were specifically targeted as tobacco is mainly a commercial crop and hence the researcher wanted to find out the opinion of the farmers in so far as their risk-coping strategies were concerned and how they perceived microinsurance.

Research design

In this study, a qualitative phenomenological research design was employed. The qualitative approach allowed for an interactive, subjective, and systematic approach to describing life experiences and giving them meaning (Morrison, 2011; Denzin & Lincoln, 2008). Van Manen (1990:36) avers that "… lived experience is the start point and endpoint of phenomenological research. Phenomenology aims to transform lived experience into a textual expression of its essence." Thus, the phenomenology research design emphasises the personal experiences of the participants to get meaning out of those lived experiences. This was important as the researcher sought to find out the perceptions of smallholder farmers towards microinsurance as a risk-coping strategy in a semi-dryland in Zimbabwe.

Sample and sampling technique

The target population for the study were registered tobacco farmers from the three regions of Zimbabwe. The researcher used information obtained from registered smallholder tobacco farmers (who had two hectares or less – about 69 000 smallholder farmers) from the Tobacco Industry Marketing Board (TIMB). From the population, a qualitative sample of 15 smallholder farmers was drawn using the purposive sampling technique from smallholder farmers who were selling their crops on the auction floors.

Research instruments

The study employed unstructured interviews to collect data from the participants. The interview questions comprised the socio-economic and demographic characteristics of smallholder farmers. The interviews comprised detailed questions about past weather-related shock experiences and their harshness in terms of the tobacco crop losses in particular and more generally on all other crops and livestock. Smallholder farmers were also asked how they perceived the microinsurance and whether they had taken out a microinsurance policy and their experience in dealing with insurers in terms of responsiveness and filing any claims in the event of an adverse event happening that was insured against.

Data collection procedure and analysis

The researcher held unstructured interviews with the 15 participants on one tobacco sales floor during the tobacco selling season in Zimbabwe during the period March 2020 – July 2020. Data obtained from the interviews were analysed using content analysis.

Ethical considerations

The informed consent of the participants was sought and obtained from the participants on the reasons why the study was being conducted. The names of participants also remained anonymous. As the study included confidential participant information, there was a need to recognise the value of human dignity. The researcher also encouraged voluntary participation.

RESULTS AND DISCUSSION

The study investigated the perception of smallholder farmers towards microinsurance as a risk-coping strategy, in the face of climate change and variability, unpredictability of rainfall, droughts, pests and diseases, fires and floods and hailstorms. The findings of the study are presented and discussed concerning the themes that came out from the interviews conducted. These themes were the attitude of farmers towards microinsurance; other risk mitigation strategies and sources of income and livelihoods by the smallholder farmers; general level of education and farming experience of the smallholder farmer; and experience with the use of microinsurance services and dealing with insurers.

The attitude of farmers towards microinsurance

The study findings suggested that most of the smallholder farmers had a positive perception of microinsurance, against the general view that they have a negative attitude. Most of the smallholder farmers interviewed indicated that they were generally agreeable to taking up microinsurance for their crops. Most of the smallholder farmers had used a microinsurance service in the past. However, all the participants indicated that the

microinsurance facility they had used was mainly to cover their lives (that is, funeral assurance). They indicated that from their experience with their life microinsurance, it was a good idea to have microinsurance as it provided them with the peace of mind in the knowledge that if an eventuality insured happened, they would get sufficient services.

It was found that only a few farmers had used microinsurance services to insure their tobacco crop in particular. Most did not take out insurance on their crop as they felt they did not need it. One farmer indicated that,

Insurance is for the big farmers who can afford the premiums, what do I need insurance for on my small piece of land? I have no use for insurance; it is for commercial farmers. We small farmers have no extra income to spare for insurance.

From this finding, the results imply that while the purchase of microinsurance is considered a risk-coping strategy from a pro-poor lens, smallholder farmers were unlikely to obtain the full benefits of microinsurance, in part due to the absence of incentives to take out insurance against such losses and a negative attitude towards the whole issue of insurance.

Another farmer indicated that while they had heard about crop microinsurance, they did not quite understand the mechanics behind the insurance contract and how it would help them in the event of crop losses. He said:

I know about crop insurance. I have an account with the agricultural development bank and they always tell us about it. However, I have not had the chance to quite understand how it works for me. Our bank keeps saying it is good for me.

This implies that there is little information dissemination to the smallholder farmers on the benefits of microinsurance and how it works by the microinsurance providers.

It was further found that despite the positive attitude towards crop microinsurance by smallholder farmers, most farmers interviewed indicated that the premiums charged were not always affordable to most of them, thereby inhibiting the uptake of microinsurance by smallholder tobacco farmers. This implies that there are no tailor-made products designed with smallholder farmers in mind.

Another factor that was found that affected the smallholder farmers' perception of microinsurance was the accessibility of microinsurance services. Most smallholder farmers interviewed indicated that while crop insurance was a noble idea, they had no access to it as it looked like it was a service designed for big commercial farmers and there were no tailor-made products that were aimed at them by the providers of microinsurance services. One farmer indicated that they had no access whatsoever to the microinsurance services. They only heard about it when they went to farmers' organisation meetings or when they went to the auction floor to market their tobacco. Thus, there were no distribution channels for microinsurance services in the farming communities that provide farmers access to these services. This implies that farm visits by the insurance providers to conscientize and market the microinsurance products and services.

Other risk-coping strategies and sources of livelihood

It was a finding of the study that smallholder farmers faced other risks to which they had developed and designed other coping strategies which were not primarily based on microinsurance. These strategies included internal savings and lending (ISL), rotating savings and credit (ROSCA) programmes and burial societies that they participated. The farmers also had other sources of income such as the fact that some of them were formally employed. Hence, their livelihood was not entirely dependent upon the tobacco crop. Thus, they developed other coping strategies like obtaining personal loans from MFIs and banks. One farmer had this to say,

'I am a contract farmer for a big corporate organisation. The last time I experienced a risk associated with my crop, the company decided to write off the debt and agreed to supply me again with inputs for the next season. So, I do not see the need for this insurance.

The availability of other coping strategies available to smallholder farmers in turn affected their perception of commercial microinsurance since they had other coping strategies. Given that the smallholder farmers may have other coping strategies or have in the past faced other risks and had used other coping mechanisms has the effect of distorting the perception of smallholder farmers. Thus, it was found that the other risks with which smallholder farmers are faced, and their immediate risk response, tolerance and disposition may have a distorting effect on the smallholder farmers' perceptions of microinsurance. While microinsurance was found to provide greater compensation and risk coverage when compared to other risk-coping measures in the case of extreme

shocks, it is often difficult for poor smallholder farmers to appreciate its intrinsic value. Thus, the poor smallholder farmers were found to be reluctant to give up a small amount of their income for paying a premium to obtain insurance cover (Apostolakis, *et al*., 2014).

It was found that those smallholder farmers had developed other safety nets to sustain their livelihoods in lean seasons. For example, one farmer interviewed indicated that he had ventured into livestock production concentrating on goats. He indicated that he was also involved in a goat producers association which helped him to have a fall-back position in the event of a tobacco crop failure. This finding concurs with Suresh, et al. (2011) who found that involvement in farmer organisations potentially encouraged the uptake of microinsurance in a household. It was found that involvement with other organisations provided smallholder farmers with pathways for information acquisition and dissemination through peer-to-peer learning and training about crop microinsurance. Thus, the smallholder farmers might have had access to other organisations which helped them to ease liquidity constraints as they can access informal lending, thus enabling the resource-constrained households to be empowered to afford the insurance premiums or to mitigate risks in the event of them happening.

It was further found that the perception of the smallholder farmers was also influenced by whether the farmers had other sources of income. Thus, smallholder farmers who had other sources of livelihood had other coping strategies, for example, one farmer used business profits to mitigate the effects of a hailstorm. In another example, a farmer indicated that they received inputs from the Presidential Scheme, so they were able to go back to the land the following season. Thus, the findings of the study indicate that most of the participants report that there was a positive perception of microinsurance by smallholder farmers.

The general level of education and farming experience of smallholder farmers

The general level of education of the smallholder farmer also influenced their perception of microinsurance as a risk-coping strategy. It was found that farmers who had a higher level of education took out insurance on their tobacco crops. This indicates that the level of education resulted in the farmers being enlightened and hence aware of the need of taking out insurance on their crops. Thus, the more educated farmers were, they had a positive perception of insurance in general, and microinsurance in particular. This finding is in line with Njeu, et al, (2018) who found that farmers with a higher level of education tended to take out microinsurance in a study in Kenya.

It was found that those farmers who had received training of some sought on the importance of insurance and general financial literacy were found to be more inclined to take out microinsurance on their crops. It was found that general financial literacy positively influenced smallholder farmers to take up microinsurance and other financial services, such as bank accounts, entering farming contract arrangements, and obtaining loans for farming inputs. It was also found that farmers who had received training at the household level on crop insurance had a positive attitude towards taking out microinsurance on their crops. Thus, it was found that financial literacy training in general, and crop insurance influenced the uptake of microinsurance by smallholder tobacco farmers. The findings of the study were consistent with the findings in a study in Ethiopia by Dercon, et al. (2014) who found that smallholder farmers who had received regular training on how microinsurance worked and the advantages of microinsurance were more likely to include it in their farming operations.

It was also found that most of the micro-insurance services offered were mainly supply-side driven rather than demand-side driven. This implies that most of the microinsurance products on offer were not farmer-centric. Thus, these microinsurance services did not meet the specific demands of the farmers. As a result, there was a low uptake of crop microinsurance services by farmers. It was found that most of the crop microinsurance services on offer were overly complex and too involving for smallholders, most of whom had a basic level of education. This finding was consistent with findings by Hill, et al. (2010) who found that the complicatedness of the crop microinsurance services has also led to the low uptake and a negative perception of crop microinsurance services by smallholder farmers. This is because the perceived complicatedness of the microinsurance services made it problematic for smallholder farmers to realise the direct benefits of taking out microinsurance. Hence, microinsurance was viewed as an extra agricultural production cost. Thus, this result implies that it is important to offer training on microinsurance services and also the important role of insurance as a production factor.

Given that crop microinsurance as a risk mitigation strategy is a relatively new concept for smallholder farmers, financial literacy and agriculture insurance training are important concepts as they assist the farmers to have a positive perception of crop microinsurance. It also affected the risk aversion degree of the smallholder farmers to have a positive perception of microinsurance. Augmenting agricultural insurance training seminars with other programmes that create climate change awareness among smallholder farmers helps in bridging the gap between them and climate scientists as the farmers are empowered with the requisite skills and knowledge that help them to make knowledgeable choices on ways to confront climate-induced risks as a means of building resilience.

The farmer's years of experience in the agricultural business was+ also found to be an important factor that influenced the smallholder farmers' perception of microinsurance. It was found that more experienced farmers (that is, farmers who had been farming tobacco for more than five years) did not take up insurance, while the new farmers were more willing to insure their tobacco crop against weather-induced risks. This result can best be explained by findings by Cao and Zhang (2011) who found that overconfidence among smallholder farmers derived from farming experience impeded the uptake of microinsurance.

It was found that experienced smallholder farmers used a mixed cropping system as a risk mitigation strategy, hence negatively affecting their perception of microinsurance. Thus, farmers believed that they could up with their strategies to mitigate risks by planting other crops so that a loss in one crop is compensated for by the earnings from the other crop. Thus, it was found that smallholder farmers were more open to risk mitigation mechanisms that were less costly. Therefore, smallholder farmers were amenable to integrating crop microinsurance with other farm-level risk mitigation mechanisms. Therefore, there was a possibility of mitigating smallholder farmers against income shocks related to crop losses through a mixture of farm-level mechanisms and professional microinsurance. This finding concurs with Njeu, et al. (2018) who found that using mixed cropping had a significant, negative influence on the microinsurance premiums bought. They found that maize mixed cropping with other crops acted as a self-insuring scheme that was designed to spread risks.

Experience with previous crop losses and dealing with insurers

The study found that the perception of the smallholder farmers was also based on whether they had previously experienced crop losses due to weather-induced risks. Those farmers who had experienced a crop loss were more easily persuaded to take out the insurance than those who had not. This was because they had learnt from previous losses that it was necessary to mitigate against risks to their crops. One farmer had this to say:

"I used to work on a big commercial farm and the farmer always insured his tobacco crop. So, when I started farming on my own, I followed the commercial farmer's example. I insured my crop with a mobile telephone-based microinsurance product. I am happy to say when my crop was destroyed by a hailstorm; I was able to get the monetary value of my expected yield. I am so happy with the insurer and do not hesitate to recommend any farmer to insure their crop, especially tobacco because it is a high-value crop"

Most of the smallholder farmers indicated that they had experienced the effects of a hailstorm and drought as well as some flash floods that wiped out their crops. As such, the smallholder farmers needed microinsurance to compensate them for the value of their tobacco. This finding was inconsistent with Njeu, et al. (2018) who found that if a household experienced drought risks previously, as measured by the number of drought incidents, this was negatively correlated with a household's propensity to take up crop microinsurance services to insure against climate-induced risks at the household level. Thus, it was found that even in the face of repeated crop losses due to droughts, a household was less likely to take up the cover to insure against those risks. The findings in the study by Njeu, et al. (2018) were rationalised in that repeated shocks prompted households to devise other safety mechanisms, that do not include crop microinsurance to cope with the shocks even in cases where they suffered crop losses to the same shocks previously. This was also consistent with Apostolakis, et al. (2014) who also found that smallholder farmers were reluctant to part with their income to pay for insurance premiums required for the level of cover necessary to mitigate the risk of crop loss. The finding was inconsistent with previous studies because tobacco was found to be a high-value crop which brought heavy losses to smallholder farmers in the event of a weather risk happening. To minimise losses,

microinsurance was, therefore, an important risk mitigation strategy.

The experience associated with dealing with the insurer was also a vital factor in determining the perception of the smallholder farmers toward microinsurance. Those who dealt with the insurance companies and were compensated had a very positive perception of microinsurance. The findings of the study were that the previous experience with dealing with insurance companies had a negative perception especially when the insurance company did not honour the agreement and hence no cover was received. Thus, where farmers received timely insurance pay-outs after crop losses, their perception was highly positive since this helped the smallholder farmer to smoothen their consumption and prevented the sale of assets. According to Hanke and Barkmann (2017) trust in, and familiarity with, the insurance company or agent that sells the insurance products and trust in the insurance product itself as obtained from information elicited from the smallholder farmers' networks also resulted in higher levels of insurance uptake. In addition, uptake was also high where the personal network of the smallholder farmer was also involved in the take-up of the insurance cover. Thus, the smallholder farmers would follow what their peers are doing. Therefore, where there was high microinsurance uptake by other farmers, the other smallholder farmers would also take the insurance.

CONCLUSION AND SUGGESTION

Microinsurance is an important risk mitigation strategy in smallholder farmers' agricultural enterprises that are faced with intensifying climate change and unpredictability. Smallholder farmers now need crop microinsurance more than ever before to mitigate and cope with climate-induced risks to build resilience towards income shocks occasioned by crop losses. This study examined the perception of smallholder farmers towards microinsurance as a risk-coping strategy. Findings of the study suggest that smallholder farmers who are into tobacco production generally have a positive perception of microinsurance even though only a few fully understood the mechanics behind how crop microinsurance worked thereby inhibiting them to make decisions regarding its take-up. In the same vein, the inaccessibility of microinsurance services and unaffordability of premiums have also hindered its uptake among tobacco smallholder farmers. Resultantly, only a few smallholder farmers had taken up microinsurance and insured their crops.

The majority of smallholder farmers had limited understanding of the concept of microinsurance, because of the generally complex nature of insurance and insufficient awareness by microinsurance providers to enlighten the smallholder farmers on the importance and benefits of crop microinsurance. This implies there is a need for vigorous awareness and rigorous training to promote crop microinsurance uptake and inculcate the culture of microinsurance into farming operations. Given the lack of accessibility of microinsurance services to smallholder farmers, there was limited participation and involvement by the smallholder farmers to give feedback, especially on their suggestions of the types of microinsurance products that would be of interest to them. Thus, the microinsurance services on offer have little or no bearing on the needs of the smallholder farmers. They are designed by the service provider themselves concerning the needs of the farmers, who are the consumers of those services. This implies that there is a need for microinsurance providers to come up with services that meet the specific needs of smallholder farmers, not generic products which may not be suitable for them.

Furthermore, results showed that the availability of other risk mitigation strategies and sources of income and livelihoods by the smallholder farmers; general level of education and farming experience of the smallholder farmer; and experience with the use of microinsurance services and dealing with insurers were found to be some of the factors that influenced smallholder tobacco farmers to take up microinsurance. It was also found that the frequency of weather-induced risk incidences also affected the perception of smallholder farmers towards microinsurance. The farming experience of the smallholder farmers was found to be an important indicator of whether a farmer would take up microinsurance or not.

Microinsurance was found to be a beneficial tool in stabilising incomes and providing a contingency recovery mechanism in the event of climate-induced crop failure.

Against these findings and conclusions, the study makes the following recommendations:

- It is imperative for microinsurance providers to engage all stakeholders, in particular smallholder farmers in the design of microinsurance services. To achieve this, it is recommended that microinsurance providers

should develop feedback mechanisms from the smallholder farmers and climate experts to come up with practical and result-oriented risk mitigation strategies and crop microinsurance policies that are well-adapted to climate change and variability. Such an approach helps in designing microinsurance services that best suit the needs of smallholder farmers given their socio-economic conditions to boost the acceptance of microinsurance while at the same time accelerating its uptake. Thus, microinsurance should be promoted in addition to other risk coping strategies and techniques such as mixed cropping, and conservation agriculture.

- It is further recommended that insurers should engage in robust new product development strategies aimed at smallholder farmers who are into different types of crops and livestock. Insurance companies should also come up with farmer-centric insurance service offerings. General farmer sensitisation of the need for crop microinsurance is recommended. Furthermore, financial services providers need to bundle microinsurance together with other financial services, such as credit, to enable smallholder farmers to buy a full package at a one-stop service point that gives them value for their money.
- Finally, it is recommended that the government and other stakeholders such as the Tobacco Industry Marketing Board (TIMB), and farmers' organisations should be at the forefront of supporting crop microinsurance initiatives for smallholder farmers by providing user-friendly and relevant legislation and support that promote the growth of a robust microinsurance sector in the country.

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