UNDERSTANDING AGRI-PRENEURS' RISK PERCEPTION AND WILLINGNESS TO PAY FOR CROP INSURANCE

Usman Mubarik [1]

Abstract

In the recent years, Pakistan has been affected from utmost meteorology conditions. Agriculture is the only sector which have merged in climatic as well as non-climatic. According to the study, it is observed that the climatic production risk and production facility risk affected the farmers in District Narowal. Crop insurance is an important tool to overcome the risk but it has not been implemented to larger extend due to multiple reasons such as lack of information, supporting polices, expertise and the willingness of the farmers to adopt such strategies. This study explains the factors which are influencing the farmer's demand to adopt crop insurance. The primary data of 384 farmers from District Narowal of Punjab, Pakistan, is collected through researcher administered questionnaire. Data has been analysed through binary logistic regression, to investigate factors that may affect the willingness to adopt crop insurance. The outcome of study is helpful as a guide for state institutions, insurance companies, and the policymakers in better execution of such agriculture policy plans.
Keywords: perceived risk; risk management practices; crop insurance; willingness to pay

1. Introduction

There is a global threat of environmental changes, which is likely to negatively affect global specially developing counties. According to Hijioka et al., (2014) thought, in mid of 21st century, world affected with different dimensions of climate change. In the south Asian countries, the real threat is food security. Socio-economic safety and protection from natural disaster is the nightmare in developing countries. The greater risk to the fatalities, specifically the most common risk consider is floods which significantly impact on the affected people in both the ways economically and socially. In the developing countries, flooding is mostly associated with climatic change and environmental changes. Different types of adversities such as torrents, hailstorms, and scarcities have caused significant production losses in the agricultural sector globally. In the developing countries, the farmers are always living under threat because farmers do not have proper financial support systems. The crops of the poor farmers were destroyed because of flood and ultimately the farmers lost their fertile land and equipment and livestock Alam et al., (2017). It is an important prerequisite for the farmer to be aware of the uncertain natural disasters and hazards to manage their production yield Drollette (2009). The reduction of farm losses is only possible when the farmers adopt risk management practices in their farmland. Risk management is an important aspect in agricultural sector

[1] Teaching Fellow, Department of Management Sciences, UET, Lahore. He is available at: usmanmubarik14@gmail.com

with increasing the farm income and the yield of the crops which ultimately increase the welfare of the farmers Harwood et al. (1999).

There were three massive floods in the history of Pakistan likely in 2010, 2011, and 2014 that caused greater damage to the agricultural sector in all dimensions. Farmers had lost their livestock, fisheries, animals and along with their infrastructure, houses, animal sheds. Furthermore, the country had destroyed 250,00 farmhouses and one million acres of productive land due to floods Cheema et al., (2016); Abid et al., (2015). Risk can be reduced through crop insurance Paudel (2016). Pakistan is facing disasters in every year but there is only 0.7 percent insurance penetration of the GDP, globally this one of the lowest percentages. Almost no progress in the crop insurance during the last ten years. Different governments have taken numerous initiatives to sponsor farming sector but have had very thin victory. In the literature, most of the studies are from other international communities, there are a few research work which purely belongs to Pakistan, Abdullah et al. (2014), Arshad (2016) to access the impacts of risk on agricultural sector. Narrowing it down further, the literature available on crop insurance in Barani area of Punjab is rare. This research work is a unique attempt to address the risks and the problems faced by District Narowal, Punjab and find the necessary solutions to it. A need therefore arises to closely observe the environment or risk, access the climatic or non-climatic trends, its impacts on agriculture and recommend necessary mitigation and adaptation measures. This research work is one of its kinds as it has estimated the prospects of crop insurance and the risk strategies for two seasonal crops i.e. Kharif and Rabi production, at different climate varying zones of District Narowal, Punjab. Narowal is situated at North-East tip of barani areas in Punjab along Indian borders. It was given the status of a district in 1991. Narowal has an agro-based economy, mainly small landholdings that prevent experimentation of new agriculture techniques and crops. Its fertile fields produce mostly high-quality rice and wheat, while fodder, maize, sugarcane, potato, Bajra and Mash pulses are other popular crops. Despite being prone to drought and thus fretting about low productivity and high risk, agriculture and livestock have been traditional sources of revenue for the people there. Crop insurance has its own importance in the agricultural sector and is considered as a risk managing tool. By using this the government of the Punjab introduced a crop insurance scheme for the farmers so that the want to protect and provide financial stability. Scheme was introduced in 2018 for farmers who lost to growers in Kharif season in the same year. This scheme went well and then the government increase their scope into 18 districts of Punjab and in 2019 the further increase the range up 27 districts for farmer's benefit. Although the scope of the crop insurance has increased by the government which means that program has had some success, the probability of setting up an agricultural insurance pool is still not clear to the farmers due to number of factors, including farmers lack of knowledge about crop insurance, insurers lack of

experience and the willingness to pay and the fact that crop insurance is not suitable for farmers in remote areas, who often do not have collateral. Since the pilots of agriculture insurance in Pakistan has produced mixed results in terms of success, therefore it is necessary to revisit the demand and willingness to pay for agriculture insurance that can play a vital role in achieving sustainable agriculture growth.

The current study explored the major socio-economic factors that affect farmers' WTP for crop insurance such as age, distance from a major river, farm size, yearly income, farming experience, land ownership, farmer's education, type of agricultural farming, off-farm income status. In addition, the factors are also identified that may affect farmers' willingness to pay (WTP) for crop insurance as a risk-mitigating approach among rural and urban farmers in District Narowal such as access to information, risk perception and risk management practices.

1.1: Hypotheses

The study has two major hypotheses which reflect the study objectives. These are stated as below:

> H_1: The socio-economic and demographic characteristics of farmers influence the willingness to purchase agriculture insurance (such as crop insurance) as a risk mitigating practice
>
> H_2: The access to information, risk attitude, risk perception and risk management practices affect the willingness to purchase the agriculture insurance

Willingness to pay is a dependent variable and the socio-economic variable like age, education, distance from a major river from farm land, operational land size, and Yearly income off-on farm family type, farming experience, land ownership type, risk attitude, and risk perception are all independent variables.

The sub-hypotheses of the study are:

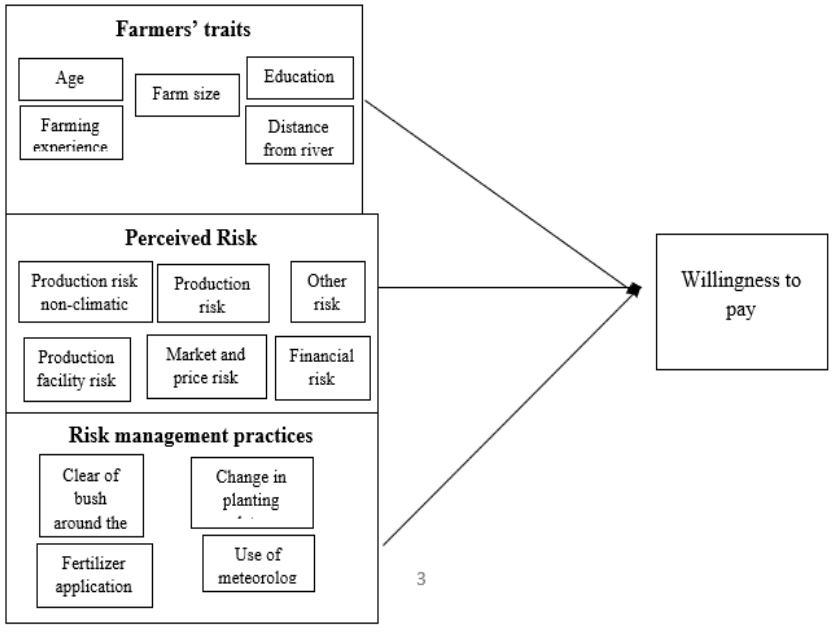
> *H_{1a}: Willingness to pay has relationship with operational land size*
> *H_{1b}: Willingness to pay has relation with age & farming experience*
> *H_{1c}: Willingness to pay has relation with education level*
> *H_{1d}: Willingness to pay has relation with distance from a major river*
> *H_{2a}: Willingness to pay has relation with perceived risk*
> *H_{2b}: Willingness to pay has relation with risk management practices and perceptions of farmers about crop insurance*

In this study we find the relationship between the socio-economics factors, perceived risk, risk management practice and the perception of the farmers about crop insurance

as independent variable and the willingness to pay as a dependent variable. Therefore, we lay out the following conceptual framework based on the above hypotheses:

1.2: Conceptual Framework

Figure 1: Schematic Representation of theoretical framework



Source: Author's own conceptualization using the existing literature (Rafiq & Blaschke, 2012; Jing et al., 2016; Below et al. 2010; Ullah et al. 2015; Fahad et al. 2018; Farzaneh et al. 2017).

2: Data and Methodology

In Narowal, there are many insurance companies and commercial banks which provide insurance like health and life insurance but on the other hand the agricultural and farming insurance is still at the pilot stage. Therefore, there is a need of the hour to determine the willingness of the farmers to accept insurance. In this study we categories two types of farmers which are categorized based on land holding. A person who cultivates land is called a farmer and the size of landholding determines whether a farmer is small or medium farmer. A farmer having up to 5 acres of land is called small farmer. Land holding more than 6 to 25 acres is a medium category farmer and a farmer who has more than 25 acres of land is defined as large farmer. The above-mentioned categories are taken from ***Punjab Fasal Bema Rogram***.

Proportionate stratified random sampling is used to collect data of 384 farmers from the District Narowal. In this technique size of each stratum is proportionate to the population size of the strata when examined across all population. This simply means that each stratum has the same sampling fraction. We have selected two stratums: stratum one is for small farmers which holds land up to 5 acres. We are using 95 percent confidence level and 50 percent population proportion in the sampling; by using Cochran (1977), Singh and Chaudhury (1985) sampling size formula we got 376 sample size for small farmers in strata one. The second category of the farmers is medium type which holds land from 6 to 25 acres are consider as second strata. By using sampling size formula, we got 08 sample size for medium farmers. The total number of farmers in the District Narowal is given in the gazetteers which was published in 2021 by the district administration Narowal, Table 1 is given below which presenting the calculation of proportionate stratified sampling.

Table 1: Proportionate stratified sampling

Land size (Acres)	Tehsil Narowal	Tehsil Shakargarh	Tehsil Zafarwal	Total No. of owners	Percentage of total No. of owners	Sampling
Up to 5 Acre (Strata 1)	(187302/564576)*376 = 125	(247683/564576)*376 = 165	(129591/564576)*376 = 86	564576	564576/576776 = 98%	(0.98*384) = 376
6 to 25 Acre (Strata 2)	(4153/12200)*8 = 3	(5744/12200)*8 = 4	(2303/12200)*8 = 2	12200	12200/576776 = 2%	(0.02*384) = 8
Total	(191455/576776)*384 =128	(253427/576776)*384 = 169	(131894/576776 *384 = 87	576776	100%	384

Source: researcher's own calculation using sampling technique

Most of the data has collected via online Google form but a few of the data has collected through printed hard form. Data has been collected from 24th April 2022 to 18th July 2022. This is a primary study. Data collected through structural questionnaire. The questionnaire will include categorical list questions, structured questions as well as open ended questions. The variables will be operationalized using the past literature.

2.1: Model Specification

The functional form of the model to be followed in present study is given below:

Willingness to pay = f (socio-economic characteristics of the farmers, perceived risk, risk management practices, perception of the farmers about crop insurance)

$$WTP = X\,ß = ß_0 + ß_1X_1 + ß_2X_2 + \ldots\ldots\ldots\ldots\ldots ß_KX_K$$

Where, X ß is the probability of achieving the dependent variable Y given a set of independent variables

$$P_1\,(Y_1 = 1)\; e^{x ß} / 1 + e^{x ß}$$

$ß_0$= Indicates log odds ratio

$$X\,ß = ß_0 + \sum {}^{n}{}_{i=1}\, ß_i\, X_k$$

X_1, X_2, X_3…….X_K; Refers to the probability of independent variables. Reporting of the logistic regression model is done by stating the odds Ratio = Exp (ß), Coefficient of marginal effect (ME), Significance levels (P).

An odds ratio represents how much likely variable Y=1 is related to variable Y=0, given a set of independent variables X_1……..X_K. In this study, the odds ratio has been used to determine the likelihood of the sample respondent adopting crop insurance compared to not adopting crop insurance based on some socio-economic characteristics of the small-scale farmers i.e. age, distance from river, and level of education.

2.2: Description of variables

The farmer's willingness to pay for crop insurance is coded as Yes = 2 and No = 1. The data on demographics and socio-economic variables are collected such as age, education, type of family, farming experience, land holding, distance from river. The perceived risk includes six categories including production risk climatic, non-climatic, financial risk, production facility risk, market and price risk and other risks. Farmers were asked to score the likelihood of occurrence of the types of risk on five-point likert scale ranging from 5 (strongly agree) to 1 (strongly disagree) to quantify their perceptions of risk. The aggregated and the individual likelihood and consequences of the risks are calculated Cooper et al., (2014). Wang and Roush (2000) analyzed assessing risks and its consequences. There are ten risk managing strategies that are captured in the questionnaire which include practice of mixed cropping, planting of disease resistance stem, diversification into non-farm activities, fertilizer application, clearing of bush around farm border, change in planting dates, use of insecticide, making of bunds and channels, use of herbicide and use of meteorological information. Farmers were asked to score the types of risk managing strategy on five-point likert scale ranging from 5 (strongly agree) to 1 (strongly disagree) to quantify their willingness to pay for crop insurance.

2.3: Results and Interpretations

Willingness to pay is the dichotomous variable while other variables are categorical are measured on ordinal scale. Willingness to pay crop insurance (Yes/No). Yes=2 and No=1. The data of this study completely followed the assumptions of binary regression. There is no linear relationship between dependent variable and independent variables.

In Model 1, education, farm size and the distance from river is significant while age of the farmers and the farming experience is insignificant. According to Fahad et al (2018) and Farzaneh et al (2017), the age is positively correlated with WTP crop insurance. This may be due to the difference the perception of farmers about risk severity. Additionally, more the farm size means more stake of the farmers so as the operational land of the farmers increases the willingness to pay for crop insurance is increases. Lastly, the distance from river from the

farmland is increase the willingness to purchase crop insurance is decreases. Those farmers which have land near to the river or canal, they are willing to adopt crop insurance because they have risk at the door but those farmers which have land way from river, they are showing less interest in willingness to pay crop insurance.

Table 2: Odds ratios on farmer's willingness to purchase crop insurance bases on socio-economic characteristics

Variables	**Model 1**
Age	1.190 [0.214]
Education	1.823*** [0.118]
Farming experience	1.070 [0.199]
Farm size	5.403** [0.821]
Distance from river	0.205***[0.173]

Source: Author's own calculations
The standard errors are given in [ ]

In Model 2, the aggregated value of perceived risk, risk management practices and the perception of the farmers about crop insurance is significant value with willingness to pay crop insurance. Risk reduced the crop yield which ultimate damage welfare of the small farmers. So the farmers can't afford any kind of risk so they are willing to purchase crop insurance and minimize the risk. Secondly the risk management practice which are also significant, and their odds ratio is greater than one. Farmers which are already managing risk are also willingness to adopt crop insurance because the present or self-insurance is expensive, so farmers are willingness to purchase crop insurance. The perception of the farmer about crop insurance is negative, it considers as additional financial burden, so they do not want to pay for them.

Table 3: Odds ratios on farmer's willingness to purchase crop insurance bases on perceived risk, risk management practices and negative perception of crop insurance

Variables	**Model 2**
Perceived risk	3.880*** [0.329]
Risk management practices	3.372*** [0.246]
Perceptions[b]	0.130*** [0.291]

Source: Author's own calculations
[b] crop insurance is perceived as additional financial burden

In Model 3, the aggregated values of all risks such as production risk climatic, production facility risk, market and price risk and other risk including burglary, land conflict and loss from herdsmen are presented with their significant relation with willingness to pay crop insurance. While two risks including production risk non-climatic and financial risk is non-significant with respect to willingness to pay crop insurance.

Table 4: Odds ratios on farmer's willingness to purchase crop insurance bases on perceived risk

Variables	Model 3
Production risk non-climatic	1.270 [0.332]
Production risk climatic	1.998* [0.361]
Financial Risk	0.797 [0.162]
Production facility Risk	1.510* [0.232]
Market and price Risk	0.353*** [0.318]
Other Risks[a]	0.734*** [0.167]

Source: Author's own calculations

[a] refers to risks of burglary, land conflict, loss from herdsmen

In Model 4, the fertilizer application, and the willingness to pay crop insurance is significant because during the season, farmers need fertilizer, most of the traders sell the fertilizer in black due to shortage. So, farmers faced difficulties that's why they want crop insurance to minimize the risk of fertilizer application. Clearing of bush around farm border and willingness to pay is significant and their odds ratio is greater than one. It is very difficult for the farmers in every season to clear and clean the farm border, it requires extra hours and labor. So, farmers need technological instrument with minimize the risk of bush that's why they demanded crop insurance to control their damage and increase their livelihood. Change in planting dates and the use of meteorological information are significant, farmers are willingness to adopt crop insurance if the meteorological department provided right guidance and information in the districts, with the help of this department the farmers would change the planting dates which increase the crop yield that's why the farmers willing to purchase crop insurance.

Table 5: Odds ratios on farmer's willingness to purchase crop insurance bases on risk management practices

Variables	Model 4
Practice of mixed cropping	1.269 [0.168]
Planting of disease resistance stem	0.848 [0.155]
Diversification into non-farm activities	0.983 [0.106]
Fertilizer application	1.779** [0.229]
Clearing of bush around farm borders	1.338* [0.156]
Change in planting dates	0.663** [0.171]
Use of insecticide	1.299 [0.274]
Making of bunds and channels	1.258 [0.150]
Use of herbicide	0.930 [0.273]
Use of meteorological information	2.013***[0.167]

Source: Author's own calculations

Practice of mixed cropping and the willingness to pay for crop insurance is insignificant, farmers in the district cultivating and producing yield through mix

cropping but they haven't felt to demand for crop insurance, farmers are fulfilling the needs of their family. The variable planting of disease resistance stem is insignificant, all the farmers use plant disease resistance stem for better and more production either they are insured or not. Every Year farmer hope to increase the crop yield and increase their lifestyle. That's why farmers manage to plant disease resistance stem and not willing to adopt crop insurance. Diversification into non-farm activities is insignificant, farmers love his land, and it is very difficult for farmer to leave his land and change their occupation. Use of insecticide and herbicide are insignificant, farmers are not willingness to purchase crop insurance. In the District most of the farmers have small units of land and they manage to control the risk of insects and herbs. They use the traditional method to overcome the risk and minimize the production cost. If the farmers use insecticides and herbicides which ultimately increases the production cost which is difficult for farmers to afford such cost, so they are not willing to purchase crop insurance.

In Model 5, certified seeds and quality fertilizer are significant while quality pesticide is in signification. Farmers are willing to pay crop insurance because when farmers desperately needs fertilizer for crops, and it is a fact that in our country there is a shortage of fertilizers which ultimately damage the standing crops of the poor farmers so they want to adopt crop insurance through which they at least minimize this risk of fertilizer. Secondly the certified seeds which is significant but farmers are not willing to adopt crop insurance, their odds ratio is less than one and the reason is every farmers in every year stored their desired seed for the next cultivation. If any farmer cannot store the seed then it's not a big issue fort the farmer because it is easy to get from another farmers, it is economical and farmers are willing to purchase from other partner rather than to get insure. Additionally, farmers know it is a safe investment, so farmers are willing to purchase seed them self rather than crop insurance. Lastly the quality pesticides which is insignificant with willingness to pay crop insurance because there is less use of pesticides in the farmland by the farmers because they have livestock so they prefer the use of animal waste in the land, so they are unwell to purchase crop insurance.

Table 6: Odds ratios on Farmer's willingness to purchase crop insurance based on perceived risk

Variable	**Sub-variables**	**Model 5**
Production risk (non-climatic or non-availability of inputs)	Certified seeds	0.575** [0.257]
	Quality fertilizer	1.914** [0.301]
	Quality pesticides	1.125 [0.293]

Source: Author's own calculations

In this model flood and canal water shortage are significant variables while drought and windstorm are insignificant variables. Flood is the extreme case which damage all crop, household and sometimes farmers' losses their life, livestock etc. this climatic risk damage the farmers beyond its mean. That's why farmers want crop insurance to minimize the damage and the risk of farm loss.

Secondly, canal water shortage is a significant variable and farmers are willing to adopt crop insurance because water is the most essential item for farmland and for crops.

Table 7: Odds ratios on farmer's willingness to purchase crop insurance based on perceived risk

Variable	Sub-variables	Model 6
Production risk (climatic)	Flood	1.834* [0.3247]
	Drought	1.591 [0.3640]
	Canal water shortage	1.345** [0.1253]
	Windstorm	1.197 [0.2509]

Source: Author's own calculations

Shortage of water is the threat for agrarian society. So farmers are willingness to pay for crop insurance to minimize the water risk and lessen their losses. On the other hand drought and windstorm are insignificant variables with willingness to pay. For drought farmers are showing willingness to pay crop insurance. Farmers are comfortable with tube well and consider as a part of farming so they are not willingly demanded crop insurance. Secondly, windstorm is also an insignificant variable because farmers knows it's not a frequent risk through which there is less possibility of any damage.

Certified seeds and quality fertilizer are insignificant while quality pesticides and higher interest rates on bank loans are significant with respect to willingness to pay crop insurance. As said in Model 5, the certified seeds are easily available and affordable for the farmers that's why farmers are not willingness to pay for crop insurance. Secondly, for quality fertilizer that is available in the market and even sold in black when there were shortage in the market. Quality fertilizer is an expensive item that's why there is insignificant relationship between willingness to pay and quality fertilizer.

Table 8: Odds ratios on farmer's willingness to purchase crop insurance based on perceived risk

Variable	Sub-variables	Model 7
Financial Risk (non-affordability of input	Certified seeds	0.821[0.190]
	Quality fertilizer	0.751 [0.283]
	Quality pesticides	2.161** [0.304]
	Higher interest rates on bank loans	1.251** [0.106]

Source: Author's own calculations

On the other hand, quality pesticides and higher interest rates on bank loans are significant variables. Quality pesticides are so expensive which poor farmers can't afford that's why the farmers are willing to purchase crop insurance and cover their loss through insurance scheme. Lastly, the higher interest rates on bank loans, when poor farmer taking loan from bank, they increase the interest rates, farmers can't afford and cover such losses so farmers want to purchase

insurance scheme and minimize their risk and cover risk through crop insurance.

All the farmers are managed to enhance their processing facility which turns into an asset of the farmer that why farmer are not willing to purchase crop insurance. Fire and loss due to erosion is significant variable and their odds ratio is greater than one. Farmers want protection from fire and erosion and cover their damage through crop insurance.

Table 9: Odds ratios on farmer's willingness to purchase crop insurance based on perceived risk

Variable	**Sub-variables**	**Model 8**
Production facility risk	Fire	1.615*** [0.1356]
	Loss of crop due to lack of storage facilities	0.717** [0.1446]
	Loss of crop due to poor processing facilities	1.027 [0.1435]
	Loss due to erosion	1.243* [0.1303]

Source: Author's own calculations

Monopoly of middlemen is insignificant, as most of the farmers are small which have land up to 5 acres called small farmers so do not understand the middlemen monopoly because they are using farming main source of income and family nutrition. So farmers are not willing to purchase crop insurance. Non-accessibility to market, input and output price volatility are significant variables in which the odds ratio of input price volatility and output price volatility is greater than one, farmers are willing to pay for crop to minimize the financial losses, volatility bring uncertainty that's why farmers are willing to purchase crop insurance to avoid the uncertainty.

Table 10: Odds ratios on farmer's willingness to purchase crop insurance based on perceived risk

Variable	**Sub-variables**	**Model 9**
Market and price risk	Monopoly of middlemen	1.133 [0.1752]
	Non-accessibility to markets	0.709* [0.2021]
	Output prices volatility	1.710** [0.2208]
	Input prices volatility	1.521** [0.2106]

Source: Author's own calculations

Loss due to herdsmen the farmers loss their crop due to herds. Most of the people have livestock and there are many conflicts among the people due to this variable, so it is significant, and their odd ratio is greater than one. It is higher chance that the farmers are willingness to pay for crop insurance. There is a need for third party insurance as well in the study area. Lastly, the burglary and the loss due to land conflict is insignificant variable because there are different reasons of different conflict, so they sorted their issues them self without paying any cost so it's easy to gather at one place and then resolve the issue between

farmers rather than crop insurance that's why these variables are insignificant and having no relationship with willingness to pay crop insurance.

Table 11: Odds ratios on farmer's willingness to purchase crop insurance based on perceived risk

Variable	Sub-variables	Model 10
Other risks	Loss due to land conflicts	0.895 [0.1374]
	Burglary	1.024 [0.1423]
	Loss to herdsmen	1.501*** [0.1401]

Source: Author's own calculations

3: Conclusions and recommendations

Crop insurance is the tool which is minimizing the agricultural risks of the farmers from natural calamities. The farmer's characteristics like socio-economic factors and the risks which are affecting the crop yield either climatic or non-climatic has included in the study along with the perception and attitude of farmers towards the crop insurance. It has observed that the threats of production risk climatic and production facility risk are most common in the study area. A fruitful finding has estimated through a binary logistic regression model. According to the study conducted by Lu et al., (2017); Velandia et al., (2009) considered some of the factors like age, experience, land holding size, education, access of information, perception and attitude of the farmers about risk, which had shown the mixed results. In this study researcher has added a large number of risk categories (production risk non-climatic, production risk climatic, financial risk, production facility risk, market and price risk and other risks which are affecting the crop yield and their risk management practices. The respondent of this study thought that the production risk climatic specifically floods and shortage of canal water are the threat for the area, also the production facility risk specifically fire and loss due to erosion, these categories of risk are most significant, and respondent are willingness to purchase crop insurance. Some farmers are using risk management practices, but they still want insurance because the self-insurance is expensive and it's difficult to maintain records.

The inefficient agricultural policies provided by the government is a kind of discouragement for the farmers because when there is a disaster situation the farmers are migrating to other non-farm activities or a few of them has migrated to other places which causes the urbanization which ultimately poses a threat to the food security. This study was carried in one district of Punjab which is famous for their rice and wheat cultivation. The few farmers were participated in the findings of this study but it is applicable to all the region of the country which have affected from natural calamities. However, in future there is a greater scope of this study, by involving the other parts of the country and a large sample size. It might be more convenient to understand the willingness of the farmers about crop insurance in Pakistan. The collected data and their analysis of this study may help the governmental department specifically extension department of agriculture Narowal, Gujranwala division Pakistan.

Additionally, the farmers may not have collateral or may have little knowledge of banking policies, the government should ensure that the necessary information is effectively disseminated among all farmers and that this process should convenient.

Compliance with Ethical Standards

- **Conflict of Interest:** There is no conflict of Interest.
- **Informed consent:** NA
- **Funding information:** NA
- **Ethical approval:** Not Required
- **Data Availability Statement:** The data will be provided upon request anytime.

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