International Journal of Aquatic Science
ISSN: 2008-8019
Vol 12, Issue 02, 2021

The Feasibilities Of Modern Technology For India's Crop Insurance Scheme

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ABSTRACT: The new technology is an essential for the future world. The changes in the entire sectors have led to immeasurable efficiency gains. Earlier these changes can initially be accompanied by uncertainty, but the latter will lead to success for every sector. In this time the insurance sector also needs with developments in new technology leading to possibilities of new methods of service to public. So the term "InsurTech" is being used to describe the new technologies with the potential to bring innovation to the insurance sector. In this paper study the Pradhan Mantri Fasal Bima Yojana (PMFBY) scheme. The insurance scheme replaces the National Agricultural Insurance Scheme as well as the Modified National Agricultural Insurance Scheme. It is ensuring the credit to the agriculture sector, which will contribute to food security, crop diversification and enhancing the growth of agriculture sector. This research article discus briefly about the crop insurance challenges and takes action along with technologies for future implementation in the crop insurance sector to promote its servicing farmers and promoting crop insurance business.

Keywords:Digital Insurance, Technology, Innovations, InsurTech.

1. INTRODUCTION

1.1 InsurTech

InsurTech is a combination of the words "insurance" and "technology". Smartphone Apps, online policy processing, automate claims processing are all calling InsurTech. It refers to the use of technology for innovation to the current insurance industry. This kind of technology used for policy creation, distribution and administration of insurance business. Also, it is useful for collecting, analyzing, and interpretation of customer data to provide a better service to the policyholders. Especially Big Data, Artificial Intelligence (AI) and the Internet of Things (IoT) have the current trending of InsurTech.

1.2Impact of InsurTech in Insurance sector

- InsurTech will help the insurance industry to step up its functioning in terms of policyholder's service.
- The policyholders want their insurance products &claims processes to be delivered through mobile. This means that the innovative changes are attractive to consumers.
- The insurance companies are much investing into the innovation technology so the insurance industry seeing this an opportunity for policyholder's satisfaction.

1.3 An Overview of PMFBY

The Pradhan Mantri Fasal Bima Yojana was launched on 18th February 2016 by Prime Minister Narendra Modi. This scheme replaces all the prevailing yield insurance schemes in India. The scheme has extended coverage under localized risks, post-harvest losses, crop cutting experiments etc. and aims at adoption of innovative technology for the purpose of yield estimation. This research article discusses about some technologies for implementation of the scheme to promote its service to greater high for farmers. It also discuss summarize the challenges under the scheme and way forward to technology to overcome the challenges.

2. CHALLENGES VS. THE WAY OF FORWARD THEPMFBY SCHEME THROUGH TECHNOLOGY

2.1 Insurance Consent

Key Word	Insurance Consent
Challenges for Key Word	1) The insurance is compulsory for Loanee farmers without his consent. 2) Several farmers are unaware about the value of scheme and functioning. 3) Farmers does not know how to assessing the claim procedures as properly.
Way to forward through Technology	1) The Government should create the awareness to farmers about crop insurance through radio, television and newspapers. 2) To Continue the process that the government & insurer to make the awareness about insurance products & benefits through Information Technology & Information Communications Technology such as mobile applications, Call Centers and Interactive Voice Response System. 3) Adequate awareness and publicity should to be delivered in all villages through local channel, Mobile exhibition.

Figure 1

Figure 1 Interactive Voice Response System is an automated telephony system that allows a computer to interact with telephone callers through the use of voice and Dual Tone Multi-Frequency tones input via keypad.

2.2Crop Loss Assessment

Key Word	Crop Loss Assessment
Challenges for Key Word	Accurate crop losses assessment is the most difficult component of an insurer as well as government. Basically the assessment of loss was based on the traditional system of crop cutting experiment. In this reason the settlement of claim took long time. Especially the crop cutting experiment is to obtain the average yield per hectare of the different crops, production and productivity of different crops grown under different cultural practices, not only that the type of seeds sown, use of pesticides & insecticides and use of methods of cultivation etc., are collected through this survey at the block, district and the state level, but this is not possible for traditional method. So need some technology to avoid delay in survey of crop loss.
Way to forward through Technology	Crop assessment should be done in transparent manner in specified period of time and using high technologies such as unmanned Aerial Vehicles or Drones, digital geo-tagged photographs, capturing picture through Low Earth Orbits Satellite.

Figure 2

Figure 2 A single drone flights can provide rapid, easy, and accurate loss assessment for insurance adjustment procedures and compensation.

Figure 3

Figure 3 The village officers will record real time data along with standing photograph of the crop through geo-tagged. The data captured such as photos, images, videos can be easily displayed on an online and will share with other departments for different crop benefit schemes.

Figure 4

Figure 4 LEO (Low Earth Orbits) satellites are micro satellites weighing less than 500 kilogram. LEO satellites can be used to enable monitoring of crop growth images around the world.

2.3Claim Settlement

Key Word	Claim Settlement
Challenges for Key Word	Crop insurance is the mainly associated with quick and accurate claim settlements. So the accurate loss assessment and its timely reporting are mandatory.
Way to forward through Technology	1) Banks offer mobile banking over Unstructured Supplementary Service Data (USSD) service to people who do not own a smart phone or have access to the internet.

	This service will quite very useful in farmers who do not own smart phones and do not have access to the internet. 2) Now Crop insurance needed core linking system. That is should linking records of farmers' crop loss land and their Aadhaar numbers to bank accounts.

Figure 5

Figure 5 Unstructured Supplementary service Data (USSD) allows users without a smart phone or without internet connection to use mobile banking. USSD-based mobile banking can be used for fund transfers, generating bank statement, checking account balance.

2.4 Product Development

Key Word	Product Development
Challenges for Key Word	1) PMFBY doesn't cover tenant farmers & It doesn't cover female farmers as many of them don't have land registered in their name. 2) Crop insurance is not like a profitable business.
Way to forward through Technology	1) The Scheme should have special provision for Tenants &Women's farmers. And changes need to be made for farmers working on the land not registered in their name must also reap benefits of this crop insurance scheme. 2) Invite many of private insurance companies to give a better service to farmers. And the government should encourage investing in crop production as called as crop investment, it leads to avoid discriminary of premium rates.

3. CONCLUSION

Technology is countless developing till in our daily life. Every day it seems to changes according to the new trends & innovations. Therefore, it is very important that modern technology is used in India's crop insurance scheme. Whenever using the remote sensing technology such as Mobile Applications, drones and satellites that could reduce the time between assessment of crop damage and payment of claim amount. Therefore, we should have Artificial Intelligence (AI) to develop Insurance firm into an InsurTech firm.

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