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Title: Microenterprises in the Agricultural Sector and (Lack of) Insurance: A Study of Fresh Fruit Farmers and Retailers in Northern Pakistan

Year: 2024

Version: Accepted manuscript

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Please cite the original version:

Arslan, A., Baig, S., & Khan, A. A. (2024). Microenterprises in the Agricultural Sector and (Lack of) Insurance: A Study of Fresh Fruit Farmers and Retailers in Northern Pakistan. In G. W. Muschert, V. Pereira, V. Ramiah, & A. Cansin Doker (Eds.), *Financial Inclusion: In Pursuit of UN Sustainable Development Goal 8.10* (pp. 179-187). Sustainable Development Goals Series. Springer. https://doi.org/10.1007/978-3-031-68803-4_15

**Microenterprises in the Agricultural Sector and (Lack of) Insurance: A Study of Fresh Fruit
Farmers and Retailers in Northern Pakistan**

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AAM version. Kindly cite this chapter as:

Arslan, A., Baig, S., & Khan, A.A. (2024). "Microenterprises in the agricultural sector and (lack of) insurance: A study of fresh fruit farmers and retailers in Northern Pakistan", in Muschert, G.W., Pereira, V., Ramiah, V., & Cansin Doker, A. (eds), *Financial Inclusion: In Pursuit of UN SDG 8.10* (pp. 179-187). New York: Springer. Available online at: https://link.springer.com/chapter/10.1007/978-3-031-68803-4_15

**Microenterprises in the agricultural sector and (lack of) insurance: Exploratory case studies
from fresh fruit farmers and retailers from Northern Pakistan**

Abstract

This chapter is one of the first studies to specifically analyze the lack of insurance for agricultural microentrepreneurs in the mountainous peripheral Gilgit-Baltistan region of Pakistan. Based on field interviews with 20 fresh fruit farmers and retailers, we found out that even though they are knowledgeable about micro-health insurance, and most have access to banking services, none of the respondents use business or agricultural insurance. The knowledge of agriculture and business insurance (including the benefits and access possibilities) could have been better for microentrepreneurs operating in these sectors. Currently, the sample microentrepreneurs rely on social networks, including family, in case of difficulties, as informal insurance mechanisms. Due to the perishable nature of produce, lack of proper storage facilities, and supply chain problems, the vulnerability of such businesses is high, and lack of insurance further complicates this situation. Based on respondents' feedback and literature review, our chapter offers several policy implications to further financial inclusion, particularly on the insurance aspect in this region.

Key Words: Agriculture, Fresh Fruit, Gilgit-Baltistan, Insurance, Microentrepreneurs, Pakistan and Periphery.

1. Introduction:

Insurance (or lack of it in a professional form) is an increasingly important topic associated with financial inclusion by scholars (e.g., Carbo *et al.*, 2005; Cappiello, 2018). However, access to and acceptance of insurance is limited in many developing countries due to various institutional and cultural factors (e.g., Mahul and Stutley, 2010; Hasanabadizadeh *et al.*, 2019). At the same time, prior researchers have established that in the absence of formal insurance mechanisms and policies, micro-

businesses resort to reliance on social networks and ethnic (family) ties in case of business loss or financial difficulties (e.g., Nagler and Naude, 2017; Belissa *et al.*, 2019). Despite these traditional mechanisms used by micro-businesses, there is an increasing trend towards increased professionalization of business services in emerging economies such as Pakistan. Due to changing socio-economic realities, reliance solely on microentrepreneur's insurance's informal mechanisms is increasingly becoming unviable. Even though, in recent years, some success has been achieved from the perspective of financial inclusion through the introduction of micro-health insurance, micro-business insurance (including agricultural insurance) is still either invisible or extremely limited (e.g., Fahad *et al.*, 2018). At the same time, scholars have stressed that despite increasing research on banking-related aspects of financial inclusion in emerging and developing economies, research explicitly focusing on insurance dynamics could be more extensive (e.g., Mohammed *et al.*, 2020). Therefore, there is a visible academic as well as contextual gap, which our chapter aims to fill.

We undertook qualitative exploratory research by conducting interviews with microenterprises' owners active in fresh fruit production (farmers) and selling (retailers) in the peripheral (and under-researched) northern region of Pakistan called Gilgit Baltistan. We focus on a peripheral region because prior studies indicate such regions as lagging or excluded by many financial services players (including insurance firms) due to a range of reasons, such as (unattractive or undetermined) market size, access difficulties, or organizational reasons (Claessens, 2006; Chikalipah, 2017). At the same time, some recent studies focusing on services' provision (including financial services) for such ignored population segments have highlighted that there is a significant potential for social value creation as well as tapping the untapped potential for the organizations (e.g., Arslan *et al.*, 2022; Kamara *et al.*, 2022). It is also important to stress that agriculture (farming) and micro-entrepreneurship related to agriculture tend to be professions for majority of populations in the peripheral regions (e.g., Simoes and do Rio, 2020). Hence, it becomes further critical to undertake an

assessment of access (or lack of it) of critical financial services like insurance in these contexts, so that tangible practical implications can be offered, along with filling the gap in extant literature.

Taking Gilgit-Baltistan—a mountainous, relatively less accessible, and rural region in the north of Pakistan as a testbed, our chapter contributes to the literature as one of the first to incorporate the views of micro-business owners' views concerning insurance (or lack of it). There has been an evolving trend in the region, especially in the last decade when the role of agriculture has shifted from subsistence to cash crops, especially as tourism has gained traction due to physical infrastructure development (e.g., Hussain *et al.*, 2017; Baig *et al.*, 2022). Despite the region being home to excellent organic fresh fruits, hiccups in the supply chains and the potential for losses due to the perishable nature of the agricultural produce (fresh fruits) are the primary financial threats for microentrepreneurs. Since the lack of economies of scale and conditions peculiar to the region limit the scope of large firms to operate, microenterprises, especially in agriculture, play a crucial part in community development. In the absence of formal insurance mechanisms for microenterprises, their sustainability rests on informal mechanisms; our chapter explores the informal insurance mechanisms, highlights their limitations, and offers suggestions for introducing formal (and accessible) micro-insurance for agricultural sector microentrepreneurs.

The rest of the chapter is organized so that the next section offers a brief literature review linking insurance with financial inclusion, especially in microenterprises. After that contextual overview is presented along with data collection details, this discussion is followed by a presentation of study findings. The chapter concludes with a presentation of implications and future research directions.

2. Literature review

Financial inclusion is the access to and use of financial services by households and firms in a specific country (e.g., Cavoli and Shrestha, 2021). Scholars have stressed that there is no universally accepted definition of financial inclusion or exclusion, as there is a variance in the conceptualization

of which financial services fall under the umbrella of this term. According to the definition by the World Bank, “*financial inclusion means that individuals and businesses have access to useful and affordable financial products and services that meet their needs – transactions, payments, savings, credit and insurance – delivered in a responsible and sustainable way*” (World Bank, 2022:1). This specific term gained the attention of scholars, especially in the emerging economies' context due to the liberalization of the commercial banking system from the 1990s onwards (Demirguc-Kunt and Klapper, 2012). Due to limited soft capital (cash) availability and lack of hard capital (collateral), a significant portion of the population, especially in emerging and developing countries, could not access formal financial services, including banking, before financial liberalization. The situation has significantly improved, especially considering banking services during the last two decades. The role of mobile (smart) phone penetration and Fintech has further contributed to this aspect (Salampasis and Mention, 2018; Arslan *et al.*, 2022). However, insurance is an essential aspect of financial inclusion; despite the rise of insurtech and microinsurance, access is still limited, especially in rural communities (Beck, 2020). Hence, the risk exposure of already vulnerable microenterprises in emerging and developing countries remains high, ultimately influencing their survival chances (e.g., Sohns and Diez, 2019).

In many developing countries, traditional insurance providers have not been actively marketing insurance services to microenterprises due to high-risk perceptions and other practical challenges. It has been argued that microentrepreneurs may lack the required documentation due to the informal nature of business operations in those contexts (e.g., Moore *et al.*, 2008; Chatterjee and Wehrhan, 2017), making it difficult for insurance providers to assess their business viability and associated risks. It is further essential to stress that the complex nature of the insurance business and the diversity of offers, including variance in premiums and detailed contracts, can also sometimes be discouraging for microentrepreneurs from developing countries. In short, the potential consumers of insurance services may need help understanding the offering (Patt *et al.*, 2009; Islam, 2019). Also, as

many microentrepreneurs, especially in the agriculture sector, tend (prefer) to operate informally and on a cash basis, hiring seasonal workers as needed, traditional insurance products and services may not precisely fit their needs. Hence, the scholars have stressed the need to undertake a multilevel strategy not only to raise awareness regarding the insurance's importance but also to enhance the value proposition for the clients by offering tailored services with easy-to-understand terms and conditions (e.g., Fahad *et al.*, 2018; Islam, 2019; Hassanabadizadeh *et al.*, 2019). Some examples of this concern are the Association of Kenyan Insurers launched a radio station in 2010 to improve the general populace's risk management and insurance literacy, especially of microentrepreneurs (e.g., Bel and Caicedo, 2013). Scholars have recently started to refer to the PACE (product, access, cost, and experience) tool to improve client value proposition (e.g., De Bock and Gelade, 2012). In Bangladesh, India, and Pakistan, some NGOs focusing poor in urban and rural areas have received praise for developing unique health and disaster insurance offerings (e.g., Rahman *et al.*, 2019). Several other insurance initiatives, primarily focusing on education and health, can be found in other countries, including national health insurance schemes like Sehat Insaf Card in Pakistan (e.g., Rashid and Saeed, 2019).

However, despite these initiatives, access to insurance for agricultural microentrepreneurs remains limited in developing countries, including Pakistan, though Adamjee Insurance has launched some policies, Pakistan, among others, as well as some initiatives at the provincial government level in Punjab and KP provinces (e.g., Fahad *et al.*, 2018). However, the users of these possibilities remain limited to well-connected main areas of the country and prominent agricultural players (farmers and entrepreneurs). Insurance usage by agricultural microentrepreneurs remains severely limited especially in peripheral regions such as Gilgit-Baltistan in Pakistan. Finally, it has been argued that lack of awareness and unwillingness to use insurance services, in general, remain visible in Pakistani context both for individuals as well as for businesses (e.g., Cheema *et al.*, 2020). Consequently, this

lack of insurance exposes them to higher risks of default and major financial hardships in case something goes wrong with them personally or their businesses.

3. Contextual overview and data collection

3.1 Gilgit-Baltistan region

Gilgit-Baltistan region has an estimated population of 1.5 million people, spread over an area of 72,496 square kilometers. Located in Pakistan's far north, this region borders with China and India. With the Hindu Kush to the west, the Himalayas to the south, the Karakoram to the east, and the Pamir to the north, Gilgit-Baltistan region is home to one of the world's most mountainous landscapes. There are ten administrative districts, with 90% being mountainous, 4% being forest, and only 4.2 percent of land is cultivable.

The climate in Gilgit-Baltistan region is ideal for growing various fruits, particularly apricots. For generations, the region's farmers have used horticulture and agriculture as part of their livelihood management strategy (ZTBL, 2019). Gilgit-Baltistan has a comparative advantage in fruit farming and agriculture. This region is known worldwide for its almond, apricot, cherry, apples, grapes, and other dry fruit production. The climate in the region is ideal for growing a wide variety of delicious, high-quality fruits and vegetables (Khan *et al.*, 2019). According to Hashmi and Shafiullah (2003: 1), agriculture in Gilgit-Baltistan has its peculiar characteristics:

"However, when one looks at the Northern Areas, agriculture is not a factory or industry. It is not merely a sector of production. Agriculture is a way of life, a cultural practice with all the implications of the word culture. They comprise growing crops with local seeds, caring animals that have adapted to the environment, relishing vegetables and fruits of their own kind and quality. There exists a system of self-reliance and sustainability. It is ecological agriculture in its true sense".

Agriculture in Gilgit-Baltistan tends to organic and chemical-free. The region has carved out a position in natural and organic farming thanks to the utilization of pristine glacial water and the

absence of insecticides, pesticides, and herbicides. The natural aspect of regional farming has provided local farmers with an opportunity to cater to health-conscious clientele in both domestic and foreign markets. Gilgit-Baltistan produces a range of fresh fruit. However, most of this fruit goes to waste due to our farmers' antiquated harvesting approach, lack of (cold) storage, lack of marketing skills, packaging limitations, and transportation challenges.

Furthermore, financial exclusion, lack of access to finance, and lack of formal insurance mechanisms have increased the existing challenges that the farmers face. Mountain region agricultural microentrepreneurs, especially farmers, do not receive a fair price for their products due to insufficient governmental and institutional assistance, supply chain problems, the perishable nature of produce, and a lack of professional management skills. These problems can further compound due to the lack of formal insurance for microentrepreneurs, as any disruption as bad weather, may lead to bankruptcy. Some recent studies (e.g., Li *et al.*, 2020) have highlighted the potential for fresh fruit farming as a tool of poverty alleviation in rural mountainous areas similar to Gilgit-Baltistan. However, financial exclusion and particularly lack of (awareness, access, and usage) of insurance is one of the significant hurdles for both producers (farmers) and sellers (retailers).

3.2 Data collection

This study is qualitative study as it is exploratory in nature and qualitative data offers in-depth descriptions (Emmel, 2013) and real-life accounts of respondents experiencing the phenomenon being researched (e.g., Guest *et al.*, 2013). We employed purposeful (also referred to as purposive by some scholars) sampling strategy in the current study. Keeping in view the exploratory focus of our chapter, the respondents (interviewees) needed to share certain characteristics (Emmel, 2013; Flick, 2017). We would like to further emphasize that judgement and understanding of research context is critical while using such sampling strategy (Guest *et al.*, 2013; Flick, 2017). Two co-authors of this

chapter are from Gilgit-Baltistan region, understand the context fully and have undertaken several academic and policy focused studies focusing on different topics there already.

In line with the adopted purposeful sampling strategy, twenty semi-structured field interviews were undertaken by one of the authors in March 2021 in four districts of the Gilgit-Baltistan region. The respondents were chosen following the criteria that they should be microentrepreneurs, represent both producers and retailers, represent variance in the background (both location within the region and education), and variance inexperience. Informed consent was taken from all the respondents; data was transcribed (written) on the spot by the researcher collecting data as the respondents were uneasy with recording. The interview questions focused on the respondents' business and agricultural entrepreneurship experiences. The interviews also focused on their understanding and perception of insurance, along with open ended discussion on (lack of) micro insurance and its influences on agricultural entrepreneurs, and alternatives being used by them. Finally, their perceptions of agricultural entrepreneurship policies in the region were also discussed. All interviews were conducted in local languages and two authors of the chapter are native to the region and can speak the languages fluently. The findings were translated to English by the same authors who have significant experience of academic research and have PhD degrees from the USA and Germany. Finally, the data analysis was undertaken manually.

4. Findings

The following table 1 summarizes the key demographic characteristics of our interviewees.

Insert Table 1 here

It should be noted that four of the interviewed microentrepreneurs were agricultural retailers, while the rest were producers (farmers). Also, the educational background varied from basic education (primary school) to undergraduate degree. The interviewees' experience running agricultural microbusinesses varied from 2 to 26 years. However, despite all this variance in the interviewees'

backgrounds, none of them currently had any business or agricultural insurance for their microenterprises. Half of the respondents were unaware of such mechanisms, while others had some idea. It was further visible that educated (High school and above) respondents understood the importance of agricultural or business insurance. However, they needed to be made aware of the possibilities in this regard compared to less-educated respondents. This pattern is similar to the findings of financial exclusion in other contexts, where education plays an essential role in awareness of financial services and their overall role in microbusiness survival and competitiveness (e.g., Mohamed *et al.*, 2020; Arslan *et al.*, 2022). We found that reliance on the local family and village networks as informal insurance mechanisms was visible in almost all cases. Hence, we found the situation similar to other developing nations and rural areas, where local ties and family networks serve as informal insurance mechanisms (e.g., Nagler and Naude, 2017; Belissa *et al.*, 2019).

However, interestingly during the discussion with respondents, another element of financial inclusion (or exclusion), access to banking services, was found to be better understood and used. Depending upon the policies and initiatives of other financial sector players, other services slowly take root in the target populace (e.g., Cayoli and Shrestha, 2021). Indeed, access to banking services is the first step towards financial inclusion.

Most of the respondents shared their experiences that business losses came from the perishable nature of agricultural products grown by them given the harsh weather and storage vis-à-vis the areas in Gilgit-Baltistan remains inaccessible for days and weeks due to blockage of the only access road, Karakorum Highway (KKH). This finding is in line with some prior researchers' findings in other similar mountainous regions (e.g., Orjuela-Castro *et al.*, 2017). Cooperative storage facilities shared by producers in a rural mountainous community and supply chain management skills have been referred to as a solution by some studies focusing on these issues (e.g., Sharangi & Datta, 2015). It is further essential to stress that all respondents were determined to continue their businesses due to high returns and a rapid rise in sales in recent years. Most of them are also planning to expand their

businesses soon. This shows the consistency and sustainability of vegetable and fruit businesses in the area, which has benefited from increased tourism due to infrastructure development, as highlighted in recent studies (e.g., Baig and Zehra, 2020; Baig *et al.*, 2022). Almost all the respondents agreed and are interested in availing insurance policies for their microenterprises if provided and given awareness and appropriately guided. The encouraging point about insurance is that most respondents have private health insurance, which shows they have basic knowledge about insurance operations and policies.

Another issue that emerged from the interviews relates to the seasonality of the fresh fruit products. The interviewed agricultural microentrepreneurs have more products to sell in summers; otherwise, in winter, they have minimal products due to the non-availability of any proper fruit storage in the whole province. Hence, the need for proper storage and warehousing emerged visibly from our field interviews. Some respondents do their businesses only in cash and do not use formal banking methods, which shows their exclusion from formal financial services provided by the government and private sector. However, it also emerged that for those microentrepreneurs whose business has grown considerably, use of formal banking channels and financial services is increasingly becoming necessary.

Finally, COVID-19 (as it was a major issue at the time of data collection) and its influences also emerged as theme during our field interviews. The respondents said their businesses had no significant losses, as the number of cases in this specific region have been minimal and no lockdown was implemented there. Also, there is significant demand for this fresh fruit, and an increasing number of tourists (many tried spending some time away from urban centers of Pakistan where the COVID-19 situation was significantly challenging) helped further in this context.

5. Implications, limitations, and future research directions

Our chapter offers several practical and policy implications based on the findings. Firstly, financial inclusion in contexts such as our research settings requires agricultural microentrepreneurs to have access to financial services, including micro-insurance. However, for agricultural microentrepreneurs in these contexts, such insurance possibilities are either totally missing or limited. This exclusion is a potential threat to both the profitability and sustainability of these microentrepreneurs. Introducing micro-insurance and providing access to micro-finance should be an essential policy imperative for the policymakers in Gilgit-Baltistan region. The complexities (including documentation requirements) of the insurance make it difficult for the agricultural sector microentrepreneurs to insure their products since most of them operate informally. It is vital to introduce a separate insurance mechanism for informal businesses. The public sector can intervene in this concern by offering policy incentives. Also, bringing informal businesses into the formal net can encourage private financial service providers to engage with local entrepreneurs.

Agricultural microentrepreneurs face many problems, including the perishability of fresh produce. Financial exclusion further complicates these issues. In this concern, cooperative initiatives supported by large financial institutions including insurance firms regarding joint cold storage possibilities for fresh produce (perishable agricultural products) will also be beneficial for farmers as the produce will not be lost. Public sector institutions and NGOs can also be a stakeholder in this process by offering practical support, including skills development possibilities in warehousing and supply chain management of perishable agricultural products. Most local microentrepreneurs in the region now have some access to micro-health insurance. It means they are well aware of the potential benefits of the different insurances. Awareness and easiness of accessing financial services require efforts by policymakers, local administrators, and interest by firms eager to tap this new market and contribute socially.

Like any other academic study, our chapter has several limitations. Firstly, field interviews with only 20 agricultural microentrepreneurs can limit the generalizability of our findings. However, our findings are good representation of agricultural microentrepreneurs in this region due to similarities in fresh fruit farming and retailing dynamics across the region, including the size and market structure. Another limitation is the lack of usage of a specific theoretical paradigm or in this chapter. However, this limitation also relates to our observation concerning a visible lack of prior research, particularly in peripheral mountainous regions, where micro-entrepreneurship dynamics differ significantly from urban centers or even rural areas in heartlands of densely populated countries such as Pakistan. Hence, context plays a critical role in such studies; an aspect also clearly highlighted by us in this chapter. We suggest future scholars to build on our work and undertake both quantitative and qualitative studies in a similar context so as to further develop conceptual and theoretical understanding of financial inclusion and micro-entrepreneurship in the peripheral regions. Finally, future researchers can also undertake comparative studies comparing this region with bordering regions (e.g., in China). Such studies can further highlight best practices, differences, and similarities concerning financial inclusion and warehousing and supply chain management dynamics of perishable agricultural production (such as fresh fruit) and retailing.

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Table 1: Respondents/ Interviewees Characteristics

District	Education	Experience (Years)	Type
Gilgit	High School	4	Farmer
Gilgit	Undergraduate	5	Retailer
Danyore	High School	10	Farmer
Danyore	High School	12	Farmer
Gilgit	High School	20	Farmer
Gilgit	High School	3	Farmer
Ghizer	High School	2	Retailer
Gilgit	High School	15	Retailer
Hunza	High School	18	Farmer
Hunza	High School	26	Famer
Hunza	High School	8	Farmer
Hunza	Higher Secondary School	13	Retailer
Hunza	Higher Secondary School	15	Farmer
Hunza	Higher Secondary School	4	Farmer
Hunza	Higher Secondary School	3	Farmer
Hunza	Primary School	18	Farmer
Hunza	Higher Secondary School	2	Farmer
Hunza	Primary School	6	Farmer
Hunza	Higher Secondary School	7	Farmer