

SERVING THE POOR THROUGH MICRO INSURANCE: A SYSTEMATIC REVIEW OF LITERATURE

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Review

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ABSTRACT

Micro insurance is an approach to serve low-income earners who are quite vulnerable to various risks in the economy. As a result, this paper aimed to systematically review extant micro insurance research and make suggestions for further research based on identified gaps. The study adopted the Systematic Quantitative Assessment Techniques (SQAT) in identifying and analyzing 36 English peer-reviewed journal articles on micro insurance from nine high quality academic databases: Emerald, Elsevier, Springer, Sage, Taylor and Francis, Cambridge, Oxford, MIT and Wiley. The study revealed that most of the articles focused on micro health insurance as well as discussing the general prospects of micro insurance. Most of the articles were empirical in nature, with majority of the studies adopting no theoretical underpinning; the few articles that had theoretical foundations utilized the expected utility theory and prospects theory. A large number of the reviewed studies were conducted in Asia and Africa, whilst none were conducted in Australasia and South America, with surveys and interviews being the most prominent research methods. The significant contribution of this study is that it is a new addition to the micro insurance field, offering insights as to the context of extant micro insurance scholarship, as well as identifying research gaps for future researchers to explore.

Keywords: *Systematic review, Micro Insurance, Micro Health Insurance, Prospects theory, Expected Utility theory.*

INTRODUCTION

On October 7, 2018, the devastating hurricane dubbed “Hurricane Michael” was formed and caused over \$25 billion in damage which will take years to rebuild (Verklan, 2019). These kinds of natural disasters hit low-income earners in both developing and developed countries the most, because this category of people are simply unable to afford insurance premiums which would have helped mitigate their property losses. This is true not only for losses caused by natural disasters, but also losses caused by natural or unnatural sources.

It is against this backdrop that micro finance practitioners developed the concept of micro insurance in the late 1990s as an alternative option to help low-income earners insure their properties via affordable premiums (Ben, 2019). Micro insurance has become a valuable financial risk management tool that allows the poor to mitigate their vulnerability to risk and poverty (Schafer, 2019). Yao et al. (2018)

further described the micro insurance concept as a financial arrangement designed to insure low-income earners against specific perils in exchange for premium which does not reflect the risk but services provision. Similarly, micro insurance entails protecting the poor against specific risks related primarily to business, property, health, accidental death, agriculture and life (Kanyangale, 2018).

Micro insurance provides micro-entrepreneurs with resources for developing the socio-economic environment of the poor and helps mitigate their vulnerability to uncertain losses (Akaayar, 2016). This is because it offers social protection programs designed to provide income support to micro-entrepreneurs (Hussain, 2018). It also provides assurance to entrepreneurs to invest their resources without debilitating fear of losses and business failure (Bongomin, 2018).

Over time, the micro insurance concept has grown in global popularity as evidenced by statistics from the Micro Insurance Network (2015), which estimated that 263 million people with a total gross premium of US\$2.2billion were covered by micro insurance in the three regions: Asia, Africa and Latin America, with a potential coverage of up to 2 billion people in the near future.

Considering the potential benefit of micro insurance to low-income micro-entrepreneurs globally, it is of great importance that the micro insurance field be explored in depth, as the concept could be what is needed to reduce low-income earners vulnerability to risk, as well as help reduce poverty and improve the standard of living of the poor. As such, this study conducted a quantitative and systematic analysis of 36 scholarly articles in the field of micro insurance, in a bid to highlight trends and gaps which will serve as reference points for future research. In addition, the study recommends and offers propositions on possible ways to bridge such identified gaps.

The remainder of this paper is organized as such: The methodology of the study is expounded, followed by the discussion of the findings and suggestions for future research. Lastly, the conclusion, limitations and future research opportunities based on such limitations are discussed.

METHODOLOGY

This study employed the “Systematic Quantitative Assessment Technique” (SQAT) developed by Pickering & Byrne (2013) in analysing the existing peer-reviewed journal articles on micro insurance. The step by step approach of the technique helped the researchers to identify gaps in the reviewed journals, such as the geographical distribution, theories adopted, methodologies used, focal themes, as well as the nature of the articles reviewed (Pickering & Byrne, 2014). For an effective systematic review, SQAT adopts five steps and the application of each step in this study is described in Table 1. 36 peer-reviewed English micro insurance articles met the criteria for selection, based on the nine databases used by the researchers.

Table 1: Description and application of SQAT

S/N	Step	Application in current study
1.	Define topic	Micro insurance as an approach to serve the poor
2.	Formulate research questions	Five research questions: i. Where were these articles written? ii. What was the nature of published Micro insurance articles? (Conceptual versus Empirical) iii. Which theory/theories was/were adopted in these articles? iv. What research methods were employed by these articles? v. What were the specific micro insurance themes explored by these articles?
3.	Identify key words	“Micro insurance”
4.	Identify and search databases	9 databases explored: Elsevier; Emerald; Sage; Springer; Taylor and Francis; Wiley; Oxford; Cambridge and MIT. i. “All in title” search using single search phrase: “Micro insurance”

Continuated Table 1

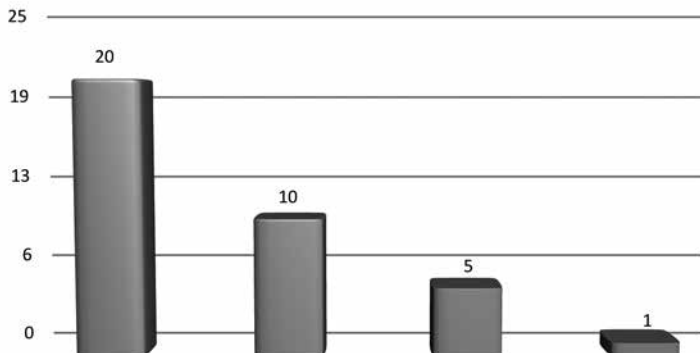
5.	Read and assess publications	<p>i. Abstracts of articles found were read and where it was necessary, the entire study was read to ensure that it dealt primarily with micro insurance.</p> <p>ii. Literature reviews, book chapters, conference proceedings and review articles were not included; only peer-reviewed conceptual and empirical papers were taken. This was to ensure that only high quality micro insurance articles were included in this systematic review.</p>
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FINDINGS, DISCUSSIONS AND SUGGESTIONS FOR FUTURE RESEARCH

Geographical Distribution of Micro Insurance Articles.

The geographical distribution of the 36 micro insurance articles reviewed in this study is presented in Figure 1.

Figure1: Geographical Distribution of Micro Insurance Articles



It can be observed from Figure 1 that Asia had the highest number of published articles (20), followed by Africa (10), Europe (5) and North America (1). No articles

were found from Australasia and South America. This was surprising considering that in Australasia, several companies offer micro insurance such as Milliman, Global insurance, Suncorp, Good Shepherd Microfinance and Asia Micro insurance (Norris, 2012; Iskenderian, 2013; Grocott, 2013; Davies, 2016). Similarly, in South America, companies that offer micro insurance include AIG's micro insurance, Cambodia, Zurich financial services, Allianz, and Tokio micro insurance (Pearson, 2012; Khmer, 2013; Rindebro, 2015; Muldowney, 2016).

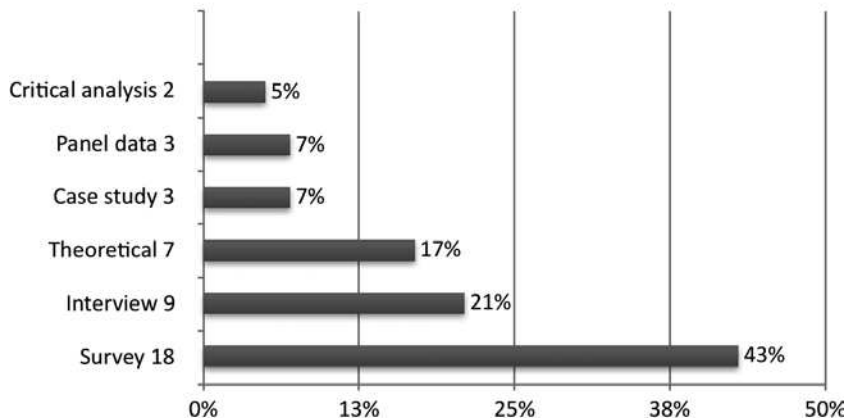
Additionally, micro insurance is targeted at the low income segment of the population, and according to the Economic Commission for Latin America (2019), 29.6% of the population of South America are living in poverty, while according to the Australasia Council of Social Service (2018). 13.2% of the population of Australasia are living in extreme poverty.

Finally, it could be argued that the reason for a lack of extant *English* micro insurance articles in South America is because English is not the lingua franca in this continent, and that perhaps the articles have been written in Spanish or Portuguese. While this argument intuitively makes sense, a counter-argument could be made that English is not the lingua franca of the Asian continent, yet it has the highest number of English micro insurance articles across the nine databases reviewed for this study.

To conclude this section, it is important that micro insurance researchers should focus on investigating the impact of micro insurance in Australasia and South America as there is a distinct lack of such articles in these two continents, at least in the nine databases utilized for this review. This, despite the fact that several companies offer micro insurance services to the significant low-income segments of the population that exist in both continents.

Research Methods

Figure 2: depicts the research methods adopted in each of the 36 micro insurance articles reviewed in this study.



Based on the findings, 43% of the reviewed articles employed the survey method wherein structured questionnaires were administered to stakeholders for their responses regarding various issues underlying micro insurance (Dror & John, 2006; Schneider et al., 2007; Akotoy, 2011; Jansen et al., 2011; Dror et al., 2014). This was followed by articles using interviews (21%) which involved collection of data directly from the persons involved in the use of micro insurance as an approach to serve the poor (Schneider, 2005; Torkestaine & Pari, 2008; Veron & Majumder, 2011; Peterson et al., 2018). The papers that adopted theoretical analysis (17%) involved the development of models for optimizing community engagement in micro insurance scheme design and deployment (Dror, 2001; Dacosta, 2013; Dror, 2014; Chowdhury & Nihar, 2018; Yao et al., 2018).

7% of the articles adopted a case study approach which focused on inter country and intra country examination of micro insurance (Forbes, 2012; Multhiah, 2012; Olaosebikan, 2014) and another 7% of the articles adopted a panel data analysis approach by collating information from the annual reports of micro insurance

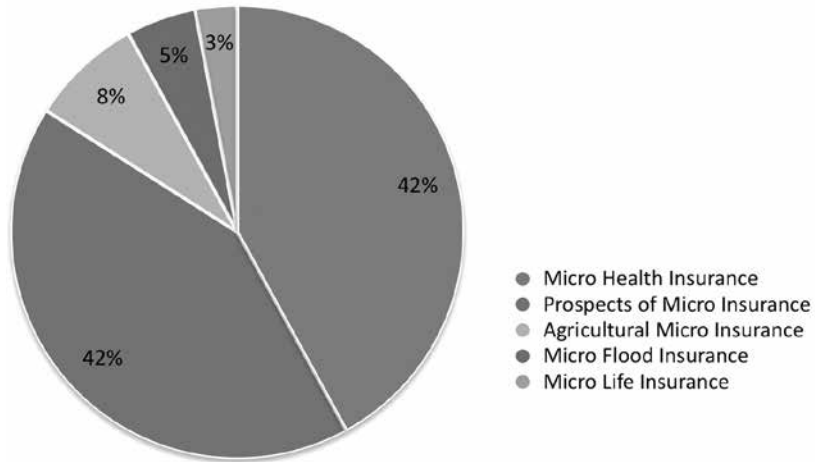
institutions over a period of years (Weber et al., 2015; Pinto et al., 2015). Articles that utilized critical analysis (5%) gave their reasoned opinions as to how various facets of micro insurance could be improved (Loewe, 2006; Hochrainer et al., 2010).

It can be observed from Figure 2 that only two of 36 articles micro insurance articles reviewed critically analysed various aspects of micro insurance and recommended ways of improvement. The vast majority of articles reviewed adopted a positivist paradigm by investigating micro insurance practices and their actual impact on the poor. Critical analysis adopts a normative paradigm by making practical recommendations on how micro insurance ought to be operationalized if its positive impact on the lives of the poor is to be maximized. It is important that this normative perspective go hand in hand with the current dominant positivist paradigm so that better micro insurance solutions can be recommended and then tested. It is thus recommended that future micro insurance studies adopt a more critical perspective towards micro insurance practice.

Micro Insurance Themes

Figure 3 reveals that the 36 micro insurance articles reviewed focused on five different themes. Micro health insurance (42%) and Prospects of micro insurance (42%) were jointly, by far, the most researched themes. For the former group of articles, the researchers assessed the demand for micro health insurance amongst the members of the informal sector in low and middle income countries (Dror, 2006; Dror et al., 2014; Iqbal et al., 2017), while the latter group of articles discussed issues about community engagement in micro insurance schemes and their prospects in contributing to poverty eradication in the world (Veron & Majumder, 2011; Chowdhury & Nihar, 2018).

Figure 3: Micro Insurance Themes



The third most common theme, representing only 8% of the articles reviewed, focused on agricultural micro insurance. The articles reviewed challenges regarding the assessment of drought risk and the viability of index based insurance in light of changing risks due to effects of climate change (Meze-Hausken et al., 2009; Hochrainer, 2010). Similarly, another article in this group investigated the magnitude of weather-induced revenue loss in cotton production (Weber, 2015).

The articles that explored micro flood insurance represented 5% of articles reviewed. Akter et al. (2011) explored the feasibility of micro flood insurance as an effective tool for spreading disaster risk in developing countries, while Brouwer (2010) critically assessed demand for micro flood insurance in developing countries.

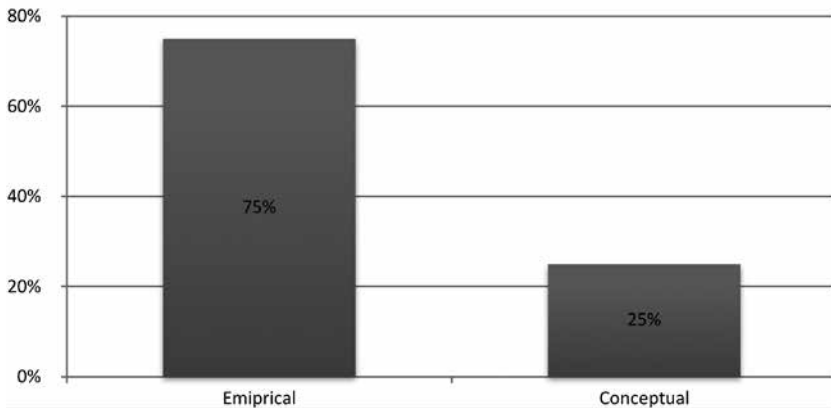
Micro life insurance was the least-researched theme (3%), with only one study (Arun et al., 2012) investigating the determinants of micro life insurance participation of low-income households using household survey data from developing countries. This finding surprised the researchers, considering the fact that insuring the life of the low-income earner is of crucial importance, considering that he is unable to afford

conventional life insurance. In fact, the micro insurance network describes micro life insurance as the most common and most important form of micro insurance. It provides coverage for funeral services, long term savings and cash pay-out to the beneficiary of the deceased policyholder (Micro insurance network, 2018). Micro life insurance should thus be at the forefront of micro insurance research, and the fact that it is not, should serve as a challenge to future researchers in micro insurance

Article Type

Figure 4 presents the classification of the 36 articles based on whether they were conceptual or empirical in nature. In this study, conceptual articles were those that dealt with the break-down of theories or concepts into their constituent parts to enable a better understanding of existing knowledge concerning micro insurance, whereas the empirical articles were those that collected and analysed micro insurance data through observations, surveys, experimentation and other research methods which produced verifiable results (Difference between conceptual and empirical, 2011).

Figure 4: Article Type



It can be observed from Figure 4 that 75% (27 out of 36) of the articles reviewed were empirical (c.f. Torkestain & Paris, 2008; Brouwer, 2010; Okosebikan et al., 2014; Weber et al., 2015), while the remaining 25% (9 out of 36) were conceptual in nature (c.f. Forbes et al., 2012; Decosta, 2013; Pinto et al., 2014; Yao et al., 2018). Conceptual studies are wholly based on the deep reflection and a critical analysis of the various issues affecting a subject matter. As it relates to micro insurance, it would be fruitful if future researchers could reflect deeply on the various issues affecting micro insurance and come up with different models which empirical research can test in the field. The arguments for more conceptual research are similar to those made for the adoption of critical analysis as a research method made earlier in this paper.

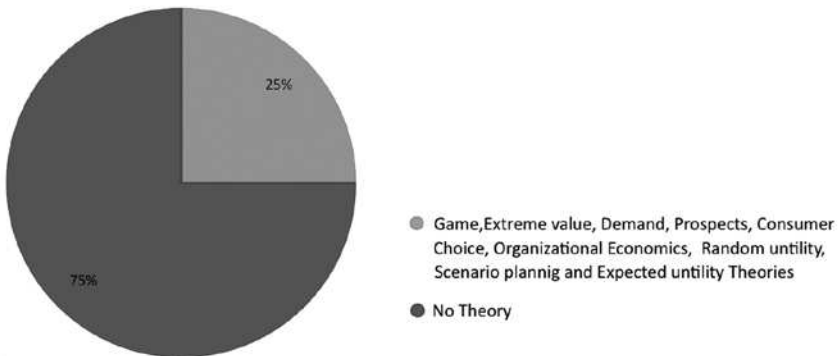
Theories of Micro Insurance

This section provides an overview of theories utilized in the extant micro insurance scholarship covered in this study. It can be observed from Figure 5 that a vast majority of the articles reviewed (75%) possessed no theoretical underpinning to support their research (Dror et al., 2006; Loewe, 2006; Hausken & Fritz, 2008; Suarez, 2010; Akotey, 2011; Akter et al., 2011; Kiran, 2012; Arun et al., 2012; Chummun & Bisschoff, 2013; Dacosta, 2013; Dror et al., 2014; Weber, 2015; Pinto, 2015; Chummun & Bisschoff, 2014; Savitha, 2017; Igbal et al., 2017; Peterson, 2018; Mahmood et al., 2018). Smith (2011) state that articles with clear theoretical foundations provide a strong starting point for the analysis of any subject matter, and according to Adom (2018) adopting a specific theoretical perspective makes research more meaningful and generalizable. This represents a major gap in micro insurance research which future scholarship should address.

Similarly, 25% of the articles reviewed utilized at least one theory to support their research (Torkestain, 2008; Brouwer, 2010; Dror, 2014; Savitha, 2017; Olasebikan, 2014; Hochrainer et al., 2010; Chowdhury, 2018; Dror, 2014). These theories include: Expected utility theory developed by Neumann and Morgenstern (1944). As used in the micro insurance context, the theory assumes that individuals hedge risks by purchasing micro insurance policy (Brouwer, 2010; Dror, 2014; Savitha, 2017); Prospects theory developed by Kahneman and Tversky (1979) predicts that an individual would subscribe for micro insurance policy if the prospect of loss with reference to risk is high (Savitha, 2017); Game theory, developed by Neuman and

Morgenstern (1944) postulates that micro insurance is a tool a business can use to gain a competitive advantage over its rivals (Torkestain, 2008). Other theories used to understand micro insurance included the economics theory (Olasebikan, 2014) and the Extreme value theory (Hochrainer et al., 2010).

Figure 5: Theories of Micro Insurance



CONCLUSION

This paper considered 36 peer-reviewed journal articles dealing with micro insurance which were examined based on five major classifications: the geographical distribution of articles, research methods, themes discovered, article type and theories adopted. The findings revealed that the Asia had the highest number of articles related to micro insurance. The articles were mostly on empirical studies and survey with less theoretical underpinning. The research findings were limited by the fact that only journal articles were included in the review, excluding book chapters and conference proceedings. Another limitation is the fact that a little word search was utilized rather than a key word search.

To this end, recommendations for future research across the nine (9) databases utilized for this study were provided below:

Future review by scholars should also include, book chapters and conference proceedings in order to have a better understanding of micro insurance scheme.

Future research should also focus on conceptual research and critical analysis method in order to have an encompassing review on micro insurance scheme.

Potential researchers should support their studies with substantial theoretical framework in order to enhance meaningful comprehension of micro insurance scheme in mitigating micro –entrepreneur’s vulnerability to risk and poverty eradication in developing countries.

The study should focus on investigating the impact of micro insurance in Australasia and South America as there is a distinct lack of such articles in these two continents.

However, future research should explore the key word search term which will produced a significant number of the papers for the review.

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