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Zaheenah B. Chummun (South Africa), **Christo Bisschoff** (South Africa)

A COMPARISON OF TWO MODELS TO MEASURE BUSINESS SUCCESS IN MICROINSURANCE

Abstract

Microinsurance is an insurance product offered to low-income earners charactrized by low profitability resulting from low premiums and high transaction costs. Insurance companies are socially challenged to also include this market segment in their portfolio of insurance products to contribute to economic development and servicing the low-income market. Business success in the microinsurance segment is, therefore, more than calculating profits. This article offers guidance to measure business success in this market. Two models were constructed to measure business success: one generalized and the other an industry specific model. These models are compared to determine which one would be the more suitable to employ as a tool to measure business success in the microinsurance industry. The analysis indicated that the generalized model is better model to use. However, the industry specific model also proves to be valuable and is more suitable for specific company applications than general industry analysis.

Keywords business success, influences, model, microinsurance, factors, compare

JEL Classification A13, G20, G23, Q17

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Zaheenah B. Chummun, Dr., University of KwaZulu-Natal Westville Campus, South Africa.

Christo Bisschoff, Prof., NWU School of Business and Governance, North-West University, South Africa.

INTRODUCTION

Although extreme poverty has decreased since 1970 by 10%, 705 million people are still living with an income of less than US$1.90 per day which is considered as extreme global poverty by the World Bank (Roser & Ortiz-Ospina, 2017). This is indeed a massive, untapped opportunity largely unaddressed in the low-income coverage market. Until recently it has been difficult to overcome the challenge for the insurance industry to address this vast low-income population in a constructive and profitable way. Microinsurance aims to protect those with the lowest incomes against a wide variety of risks with a setup that is easy and beneficial for the client at the same time, as it is sustainable on its own merits as a profit making business. A study of the landscape of microinsurance in 2015 on the continent Africa showed that in Africa alone, the number of microinsurance policies rose considerably between 2005 and 2014 from 0.4% to 5.40% on the overall continent; approximately 64% of the low-income households remain uninsured in South Africa (Biese, McCord, & Sarpong, 2016). Microinsurance is a low-profit insurance product. Therefore, economical wisdom should impose close measuring of the business success an insurance company achieves in this market. However, how can the success of microinsurance be measured in South Africa? The objective of this article is to identify a suitable model to measure business success in the South African microinsurance market.

1. THEORETICAL BASE

Over the last decade where the field of microinsurance has really evolved worldwide, researchers tried to understand and explain how the business success of microinsurance can emerge, while it is faced with major challenges of low premium rates and high transaction costs and to continue the development of low-income insurance is uncertain. Microinsurance is only now becoming a viable business opportunity for insurance companies and the potential for future business of the low-income market and subsequent long-term benefits of this market make it a commercially viable market segment. However, determining success in this insurance venture is difficult to determine as there have been limited studies to determine business success in the microinsurance industry. Here, in her research, Chummun (2013) developed two possible models to induce success.

- The first model was developed to measure business success in a general insurance environment in South Africa where several providers of microinsurance such as banks, retailers, insurers, funeral parlors, fast food outlets and the post office operate.

- The second model was developed to measure business success in a more specific microinsurers' targeted setting in South Africa.

Table 1 lists the various business success influences considered.

2. RECENCY OF MICROINSURANCE

Microinsurance has become a prominent insurance terrain to focus on by insurance companies, and despite its low profit margins, these companies acknowledge that the financial inclusion of this market has become a crucial bedrock of development policy in most countries around the world (World Bank, 2017). In this regard, the World Bank (2017) continues to state that financial inclusion means that "individuals and businesses have access to useful and affordable financial products and services that meet their needs such as transactions, payments, savings, credit, and insurance, delivered in a responsible and sustainable way". Financial inclusion originates from the view that to alleviate extreme poverty, boost prosperity and to support growth are prerequisites for sustainable economic growth and development (IMF, 2014; Demirgüç-Kunt et al., 2008). This means that financial access also enables this low-end market to gain access to many other services, such as microinsurance, electronic payments, money transfers, non-cash transaction ability and other services (World Bank, 2014). Inclusive financial systems also enable the low-income market to save and borrow

Table 1. Business success influences in microinsurance

Source: updated from Chummun and Bisschoff (2015a, p. 17).

Year	Origin/Researchers	Influence
2006	Radermacher and Dror	People
2008	Gerelle and Berende	Technology
2008	Gerelle and Berende	Technology
2010	Smith, Chamberlain, Hougaard, and Smit	Communication
2011	Makove	MI regulatory framework
2012	Debock and Gelade	Latent demand
2012	Smith	Culture
2012	Morsink	Trust
2013	Kamau	Financial literacy
2013	Njuguna and Arunga	Price; product
2013	Merry, Prashad, and Hoffarth	Place (distribution)
2014	Angove and Dalal	Scale
2014	National credit regulator	Compulsory insurance
2014	Merry, Prashad, and Hoffarth	Place (distribution)
2014	Bhat and Mukherjee	Government subsidy
2014	Angove and Dalal	Claims management
2014	Angove and Dalal	Expenses and control
2014	National credit regulator	Microcredit-microinsurance link
2015	Solana	Partnership; promotion
2016	Microinsurance network	Human resource training and development

money which allows them to purchase assets that can be paid off over time. Additionally, more expensive products and services are now also in the reach of this market and it is noteworthy that some do invest in a better future with the ability to take up credit. This would be to invest in education and entrepreneurial ventures and thus improve their livelihoods and income to better service their credit (Demirguc-Kunt & Klapper, 2012). Microinsurance also provides cover against asset losses and thereby they reduce their vulnerability against socio economic and natural risks.

Although many low-income households are steadily increasing their purchasing of microinsurance in South Africa, there are still an estimated 36% of the South African low-income households unserviced by insurance coverage (Biese, McCord, & Sarpong, 2016). Although this is a large market opportunity, one of the main reasons that make the low-income market fairly unattractive is low premiums and the high transaction cost (Luebke, 2017). A critical component of low-income market profitability is scale; successful microinsurance initiatives are thus aimed to capture high volumes of business to achieve a profitable market share of microinsurance (Angove & Tande, 2011, p. 3). Here Thom et al. (2014) state that the relationship between microinsurance scale and profitability is a considerable concern to the insurance providers, company shareholders and other policyholders. These authors, however, concluded that if an increase in the volume reaches a profitable scale of insurance activities, it will have a positive influence on the business success of the insurance company, and that would be positively reflected in the share price, as well as the growth in other policyholders' portfolios (McCord et al., 2012, p. 7).

However, high volumes do not always translate into business success and the analysis of the underlying cost structures of microinsurance should ensure that achieving scale and growth, in fact, do translate into business success. This view is substantiated by Angove and Dalal (2014, p. 4) who reiterates that to be commercially attractive, microinsurance must generate returns to compensate shareholder for their capital invested and the risks involved in underwriting the business. Offering microinsurance products and services to the low-income households are not trouble-free. Here microinsurers are faced with a number of challenges to overcome when they enter into this market segment. These challenges are:

- The relatively low premium amount and high transaction cost of a policy limits profits per transaction.
- There is a lack of data or information on existing low-income consumers and potential ones who are financially excluded. Resultantly, market intelligence cannot be used optimally in strategic business modelling (Nordin & Bowman, 2016), projections of market behavior are troublesome and managerial decision-making is uncertain (Kumbla, 2016).
- Individual customer risk is difficult to assess. A lack of the financial history of prospective low-income customers makes the eligibility process for providing credit difficult, because no repayment history or credit ratings exist for these customers.
- Although mobile phone companies do possess some valuable information on the commercial activities of the low-income market, access is limited due to privacy, security legislation and policies.

3. RESEARCH METHODOLOGY

The methodology developed by Fields and Bisschoff (2014, pp. 47-49) on model comparison proved easily adaptable to apply in comparing the two models of business success in microinsurance. These authors successfully compared model characteristics to derive at a choice by using the following statistical techniques:

- factor comparison;
- correlation coefficients;
- cumulative variance explained;
- comparing the points of inflection;
- determine sample adequacy and sphericity; and
- measure the reliability of the factors.

3.1. Factor analysis

Factor analysis was originally developed in the late fifties to assist psychologists to better understand their patients' behavior because it possesses the ability to identify latent behavioral drivers (Kerlinger, 1973). However, factor analysis quickly became a suitable tool to research a myriad of behaviors and became popular in consumer behavior and other business applications. Additionally, factor analysis also provides the benefit of classifying a large number of variables into a smaller number of constructs (or factors as they are called) resulting in an easier interpretation of a data set (Field, 2009, p. 638). Hooper (2012) continues and states that the success of applying the technique depends on how many factors are extracted from the data, their cumulative variance that they explain and the correlations between the variables. Rasool (2011) furthermore points out that the reliability of the factors is also important, as this points to the repeatability of the research; this is an important point in model building, as one would expect future applications of a model to yield consistent results. This study, however, uses only exploratory factor analysis, because neither the number of factors nor the interrelationships between them are known. Hence, an exploratory analysis is required.

3.2. Correlation coefficients

This study employs the Pearson correlation coefficient. In essence, a correlation coefficient measures the relationship between two variables and yields an outcome on how strong this relationship is (Field, 2009, p. 167). In this study, the Pearson correlation coefficient is used to measure the relationship between the factor loadings of the two factors and to indicate how strongly these two factors are related. As suggested by Fields and Bisschoff (2014, p. 48), the minimum correlation is an absolute coefficient of 0.30.

3.3. Cumulative variance explained and the point of inflection

The cumulative variance indicates how well the data fit the research objectives (Field, 2009, p. 639), thus showing the so-called goodness of fit of the data (Hafiz & Shaari, 2013, p. 84). The maximum variance that can be explained is 100%. A good fit to the data is regarded to be close to 60%, but preferably more than 60% (Field, 2009, p. 670). The higher the variance explained is on a specific factor, the more important that factor is (Hafiz & Shaari, 2013, p. 85). The point of inflection is used to determine where the contribution of the "next factor" becomes marginal. The variance explained provides the data to determine where the point of inflection is (Rasool, 2011).

3.4. Reliability of the factors

Reliability is fundamental in the model evaluation, because it provides insight if a factor is likely to be repeated in similar future studies; hence, it renders a verdict if the model has predictive powers. This study employs the Cronbach's coefficient alpha measure of reliability (Tavakol & Dennick, 2011, p. 54). Here the reliability of the factors in the two models is compared to indicate which models possess better reliability, hence, providing a more reliable measure of business success. In this regard, Fields and Bisschoff (2014, p. 48) quote Tavakol and Dennik (2011, p. 54) who state that the more reliability model would be the one with the highest reliability coefficient. Cortina (1993, p. 101) states that acceptable reliability could be as low as 0.57, but in this study, the more acceptable level of 0.7 is set as a target (Field, 2009, p. 674).

3.5. Kaiser, Meyer and Olkin (KMO) sample adequacy

The Kaiser, Meyer and Olkin (KMO) measure of sampling adequacy is used to ensure that the sample used provides the necessary minimum data-points to analyze the data successfully. A rule-of-thumb is that for every question postulated in the questionnaire, at least five responses are needed (this means a 20 question survey needs 100 responses) (MacCallum et al., 2001, p. 630). However, the KMO statistically determines if the sample was adequate to yield quality results on factor analysis (Bama, 2014). Schwarz (2011) further points out that modern researchers do not use the rule-of-thumb and that the KMO measure is a standardized test when performing factor analysis. KMO scores of 0.70 and higher are desirable, although a minimum score of 0.60 also indicates an adequate sample (Bama, 2014; Field, 2009, p. 640).

3.6. Bartlett's test of sphericity

The Bartlett's test of sphericity determines the suitability of the data to perform exploratory factor analysis (Bama, 2014). A value below the 0.05 is required to proceed to factor analysis (Du Plessis, 2010). Bartlett's measure determines inter-correlations between the variables, and if these correlations are too high, factor analysis is not a suitable tool to use in the analysis (Field, 2009, p. 639).

4. BUSINESS SUCCESS MEASUREMENT MODELS

The two models to measure success in microinsurance are discussed below.

4.1. General model (model 1)

The first model (model 1) is a general model and has nine factors. Figure 1 shows the model and its factors, the individual variance explained per factor and the reliability coefficients of the factors. The model is illustrated in Figure 1.

The nine factors identified in the general model are:

- **Factor 1.** Scale explains a variance of 14.91%; this makes it the most important factor. This factor points to greater size through achieving sufficient volumes, is more likely to mask survival benefits of greater related insurance business scope and business success of microinsurance. Cronbach Alpha (α) is 0. 97 high which shows excellent reliability.

- **Factor 2.** Partnership explains a variance of 12.11% and is the model's second most important factor. It relates to the partnership between an intermediary and the insurer. This is a critical issue because the intermediary needs to establish a large client base to be economically viable so that he or she could leverage specialist insurance products using the right insurance companies as partners. This factor also has an excellent reliability coefficient of 0.94.

- **Factor 3.** Claims management explains a variance of 9.46%. The factor involves the essential promise by an insurer is to honor the payment in a situation of a valid claim and their ability to pay claims efficiently and transparently. Managing claims costs has in fact been

Source: Chummun and Bisschoff (2015a).

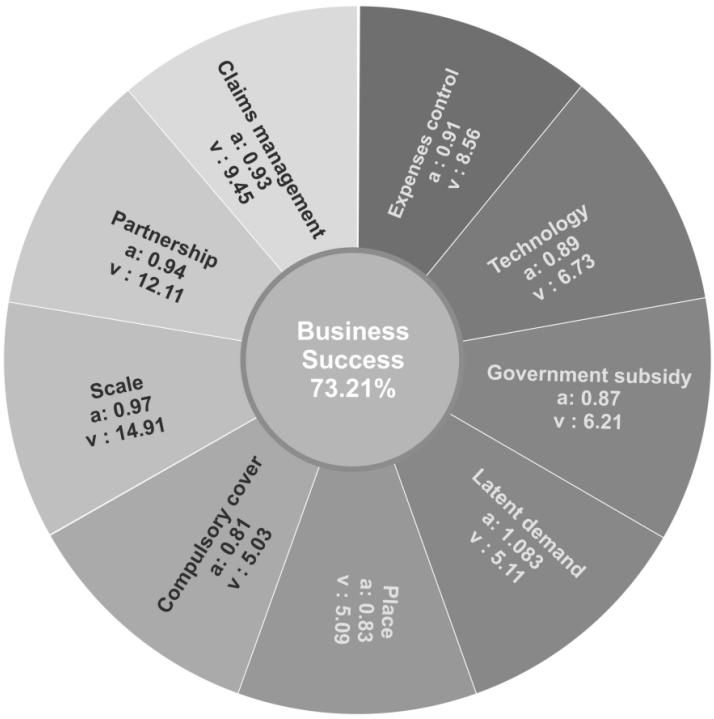

Figure 1. The general model 1

the driving force behind microinsurer's business success. The Cronbach Alpha coefficient (α) is 0.93, also here showing excellent factor reliability.

- **Factor 4.** Expenses control points to the ability to manage operating expenses at an acceptable level to determine business success using a cost-effective approach and implementing cost controls to manage ongoing costs. This factor explains a variance of 8.56% and shows a very satisfactory reliability coefficient of 0.91.

- **Factor 5.** Technology involves aspects relating to the impact an updated information system has on client support, with regards to their policy and claims administration which are among the most strategic decisions in a general setting of business activities to maximize the quality of the services delivered and to minimize the cost to clients in microinsurance. This factor is supported by the favorable variance of 6.73% and shows a very satisfactory reliability coefficient with a Cronbach Alpha (α) of 0.89.

- **Factor 6.** Government subsidy points to the impact that state subsidising has on the premium of an insurance product. This factor explains 6.21% of the variance of and has a high reliability coefficient of 0.87.

- **Factor 7.** Latent demand explains a variance of 5.11%. The factor points to the ability to find solutions for converting latent demands to active ones. Thus the marketing of microinsurance products plays a significant role in increasing the variety of microinsurance coverage and creating new competitive potential in South Africa. The reliability coefficient is negative (α = –1.083). This means that the respondents perceived some questions to be negative; hence, the reliability cannot be calculated. However, after inversion of the negative scores (Field, 2009, p. 674), the reliability was recalculated and showed a satisfactory coefficient of 0.72.

- **Factor 8.** Place specifically points to the impact that distribution has on the business success of microinsurers in South Africa through sales agent outlets or roaming field agents bringing efficiency gains in communicating sales messages as a clear and simple value proposition to clients, and high transaction costs that need to be recovered by relatively low transaction premiums. This is justified by the variance of 5.09% and also has an excellent reliability of 0.83.

- **Factor 9.** Compulsory insurance explains a variance of 5.03%. Factor 9 points to the importance of having mandatory cover to protect the well-being of all stakeholders, since it can often avoid the cost of court battles. It is classified as a significant source of growth and business success for the insurance sector in many emerging markets. The reliability was excellent with a coefficient of 0.81.

4.2. The applied model (model 2)

This model is an applied model. It was developed for four microinsurance companies and consists of thirteen factors. Figure 2 shows the factors, variance explained and reliability coefficients of the model.

The model consists of the thirteen factors. They are:

- **Factor 1.** People explains a variance of 7.95% and is the most important factor in measuring business success of microinsurance. This factor deals with people who are regarded to be the most important resource of an organization. People (or employees rather) are important role players in service delivery, while they also play a role to influence perceptions of buyers on microinsurance. They are the first point of contact with the low-income household customers and remain integrally involved in the process of microinsurance service delivery. The factor has a high reliability coefficient with Cronbach Alpha (α) calculated at 0.9; this shows excellent reliability.

- **Factor 2.** Culture explains a variance of 7.62%, hence, it is the second most important factor when measuring business success of microinsurance. This factor deals with to the need that a solid microinsurance culture can only pro-

Source: Chummun and Bisschoff (2015b, p. 107).

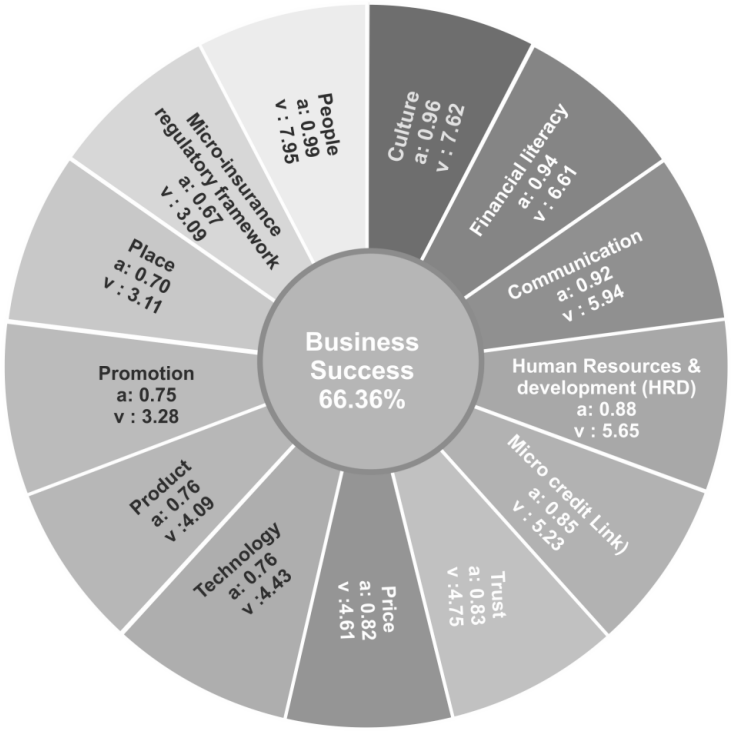

Figure 2. The applied model

duce solutions to problems and address social concerns for the low-income households such as mental peace and financial security in case of hardships. The reliability coefficient of 0.96 indicated excellent reliability.

- **Factor 3.** Financial literacy explains a variance of 6.61%, deals with literacy and how it impacts on making financial decisions when the low-income households buy microinsurance cover. They can be vulnerable because low literacy or no knowledge at all of thekey financial terms could result in high levels of misunderstanding about insurance products. Excellent reliability is portrayed by the Cronbach Alpha coefficient at 0.94.

- **Factor 4.** Communication indicates that it is important to use communication effectively as key to reveal the benefits of microinsurance coverage with regards to their terms and conditions which shows high awareness and knowledge to low-income households. The factor of communication explains a favorable variance of 5.94% and also has excellent reliability coefficient of 0.92.

- **Factor 5.** Human Resource Training and Development has a variance of 5.65%. It specifically points to the human resources impact on the emergence of microinsurance as products in the insurance market in South Africa over the last decade. The growth in the market caught insurance companies off-guard and most of them do not have enough personnel with an adequate microinsurers insurance background in the field. Therefore training and development of employees and skills development in this insurance product is an important success factor. This factor also shows excellent reliability ($\alpha = 0.88$).

- **Factor 6.** The microcredit-microinsurance link covers the debt upon the death of a policy holder. Both the outstanding principal amount and the interest of the loan are covered. It, therefore, points to the ability that the microinsurance coverage could serve as collateral for any microloan upon death. Thereby making loans more accessible to the poor and not burdening relatives to sign surety and repay loans after the death of a family member. Therefore the linkage between microcredit

and microinsurance can make good business sense for the low-income households. The factor explains a variance of 5.23% and also shows high reliability (α = of 0.85).

- **Factor 7.** Trust points to the confidence of the low-income households in the provider of microinsurance. This deals not only with the uptake of microinsurance, but also with customer retention. Therefore, the element of trust of the low-income households is an important factor in determining business success and should not be compromised. The variance explained by this factor is 4.75%, while it also shows high reliability (α = 0.83).

- **Factor 8.** Price shows that the element of affordability is an important element when purchasing a microinsurance product. A provider of microinsurance must charge an affordable price for the low-income earners to be able to afford the insurance to protect themselves from hardships such as natural disasters, fire, and theft. The factor explains a variance of 4.61%, while it has a high reliability coefficient of 0.82.

- **Factor 9.** Technology is important because it enables the insurer to develop and manage an information system to support clients, policies and to administrate the claims. A good technology-based management system improves the insurer's business operational effectiveness and, as such, maximizes service delivery, while it also minimizes cost. In conjunction with Factor 8 (price), this is a competitive advantage because of the low profit margins prevalent in the microinsurance market. The factor explains a variance of 4.43% and has satisfactory reliability with a Cronbach Alpha coefficient of 0.76.

- **Factor 10.** Product underlines the importance of product decisions about microinsurance products in the South African general setting. It highlights that product and product range decisions are important managerial decisions. Entering a new market segment such as microinsurance is a strategic product decision and insurance companies need to decide if they see a future in the products satisfying the need of low-income households. The variance explained by this factor is 4.09%, while the factor also has satisfactory reliability coefficient of 0.76.

- **Factor 11.** Promotion points to the high relevance of campaigns showing high visibility of microinsurance products in the general setting of South Africa through raising awareness, helping clients understand the product and getting customers to use the information they have about products to make a decision to purchase insurance. The favorable variance of 3.28% underlines the importance of promotional gathering about microinsurance products as an important factor to determine business success aboutmicroinsurance products in South Africa and shows a satisfactory reliability coefficient with a Cronbach Alpha (α) of 0.75.

- **Factor 12.** Place specifically refers in this study to microinsurance business success in South Africa. Noteworthy here is the fact that a large number of potential microinsurance households are out-of-reach because they are living in the most remote areas where insurance consultants cannot be profitably employed. They will thus remain uninsured. On the other hand, the majority of the low-income household is geographically easily accessible and could be targeted and serviced by insurance companies with microinsurance products. A variance of 3.11% is explained by the factor and it also has a satisfactory reliability coefficient of 0.70.

- **Factor 13.** Microinsurance regulatory framework is the final factor. It explains a variance of 3.09% and explains that regulation of the industry via insurance legislation requires scrutiny. Currently, the general insurance legislation applies to microinsurance, and the rigidity thereof negatively influences the expansion of insurance services and microinsurance business growth in South Africa. The factor has a low satisfactory, but still acceptable, reliability coefficient of 0.67 (Field, 2009, p. 674).

5. RESULTS

5.1. Factor comparison

As part of this comparative study, a factor comparison was done and the identified factors are shown in Table 2 below.

5.2. Variance explained and "goodness-of-fit" measures

The variance explained is shown in Table 2. Important to note is that only 26.79% variance in model 1 and 33.64% in model 2 could not be explained. It is commonly accepted that the goodness-of-fit of a data set realize when the cumulative variance is equal or more than 60% (Hair et al. in Haasbroek, 2008; Field, 2009, p. 640). Here both models excelled and surpassed the 60% with ease (model 1 at 73.21% and model 2 at 66.36%). The cumulative variance of the two models then differs with 6.85%. This means that Model 1 explains more variance and is, therefore, able to "better" measure business success. Here model 1, therefore, outperforms model 2 and is a more effective selection based on this decision criterion.

Two types of factors exist to compare the models. They are "pure" and "common" factors. These factors are explained by Fields and Bisschoff (2014) as:

- **Pure factors.** These factors appear in both models. They also show large similarity on the criteria measured as per the questionnaire and the criteria that loaded on these factors.
- **Common factors.** These are factors seem to be common factors in both models. However, the criteria loading onto these factors are not largely similar.

From the table, it is clear that no pure factors exist to compare directly. Regarding the second category, two common factors (Technology and Place) exist. These two common factors are discussed below.

Technology as a common factor explains variances of 6.73% (model 1) and 4.43% (model 2), respectively. This means that in model 1, Technology is 2.23% more important than it is in model 2. Regarding the other common factor, Place, to measure business success, the variance explained by the factor in model 1 is 3.11%, while it is 5.09% in model 2. This means that in model 2, Place is more important in measuring business success (by 1.98%). The question then remains is to what extent these factors between the models correlate with one another. Here a high correlation would indicate that these factors actually do measure the same concepts (or perceptions of Technology or Place as measures for microinsurance success). The Pearson correlation coeffi-

Table 2. Factors of the models

Factor no.	Model 1		Model 2	
	Factor label	% variance explained	Factor label	% variance explained
1	Scale	14.91%	People	7.95%
2	Partnership	12.11%	Culture	7.62%
3	Claims management	9.46%	Financial literacy	6.61%
4	Expenses control	8.56%	Communication	5.94%
5	Technology	6.73%	Human resources management and development	5.65%
6	Government subsidy	6.21%	Microinsurance-microcredit link	5.23%
7	Latent demand	5.11%	Trust	4.75%
8	Place	5.09%	Price	4.61%
9	Compulsory coverage	5.03%	Technology	4.43%
10	***		Product	4.09%
11	***		Promotion	3.28%
12	***		Place	3.11%
13	***		Microinsurance regulatory framework	3.09%
Cumulative variance explained (%)		73.21%		66.36%

Note: *** not identified.

Table 3. Pearson correlation coefficients between common factors

Factors	Technology		Place	
Frameworks	**Model 1**	**Model 2**	**Model 1**	**Model 2**
Factor loadings of each statement on similar criteria	0.813	0.801	0.748	0.835
	0.801	0.799	0.735	
	0.751	0.745	0.667	
	0.720	0.427		
	0.621	0.326		
	0.575	0.431		
r	0.823		***	

Note: *** no correlation calculated.

cient was used to compare the two common factors in the two models. The results appear in Table 3.

The results show that only Technology as a common factor could be verified. Here a high correlation of 0.823 shows that Technology is indeed regarded by both models as a similar concept. The same is not true for Place; the absence of a correlation here indicates that the models differ in their interpretation of what place actually means, and that is not a common factor as initially thought.

5.3. Points of inflection of the models

The point of inflection is a graphical representation of the variance explained and it shows the individual variance contributions by the factors. Commonly a factor structure should explain high variance by fewer factors, or ideally, explain high variance by the first few factors. This could be beneficial because the variance explained is localized and less complicated to interpret. The point of inflection occurs when the difference between the variance explained by a factor and the next factor becomes marginal (the next factor explains almost the same variance).

Figure 3 shows that neither variance patterns reach the point of inflection. This means that all the factors of both models should be retained. However, in model 1, the steep slope of the line indicates that this model explains much more variance in the initial factors, hence showing strong localized factors with easier interpretation. As a result, model 1 is the suitable choice.

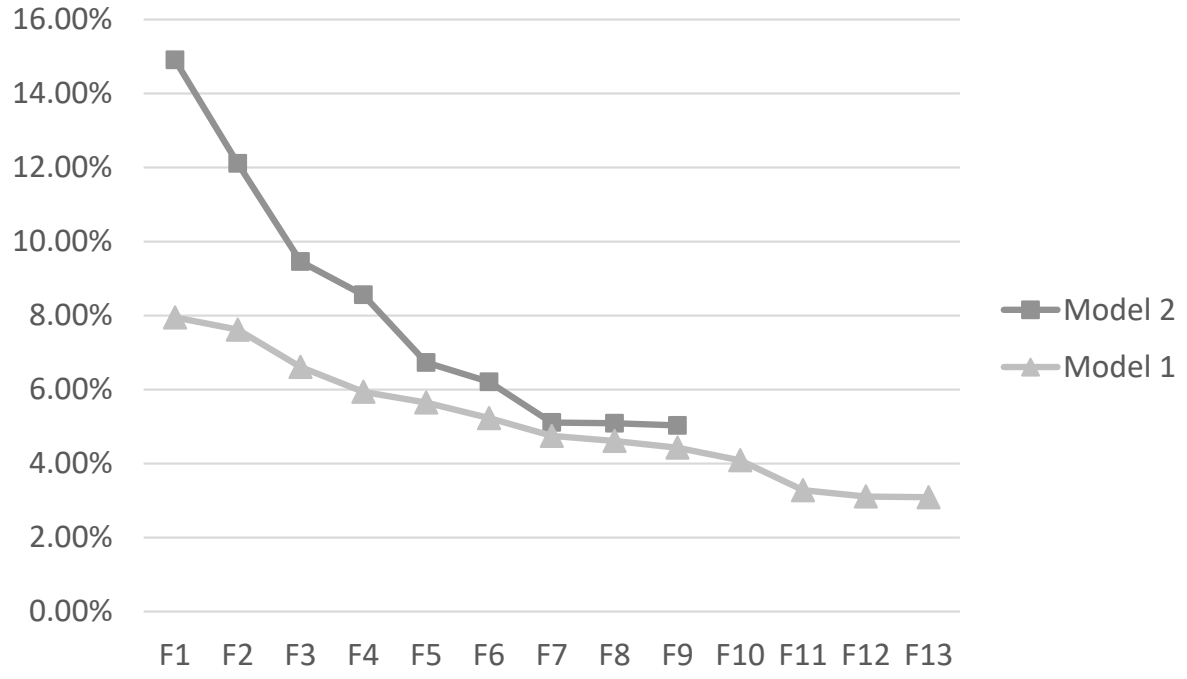

Figure 3. Point of inflection

Table 4. Reliability of the factors in the two models

Factor no.	Model 1		Model 2	
	Factor label	Cronbach Alpha	Factor label	Cronbach Alpha
1	Scale	0.97	People	0.99
2	Partnership	0.94	Culture	0.96
3	Claims management	0.93	Financial literacy	0.94
4	Expenses control	0.91	Communication	0.92
5	Technology	0.89	Human resources management and development	0.88
6	Government subsidy	0.87	Microinsurance-microcredit link	0.85
7	Latent demand	***	Trust	0.83
8	Place	0.83	Price	0.82
9	Compulsory coverage	0.81	Technology	0.76
10	***		Product	0.76
11	***		Promotion	0.75
12	***		Place	0.70
13	***		Microinsurance regulatory framework	0.67

Note: *** not calculated.

All the factors in model 1 and 12 in model 2 have satisfactory reliability coefficients. All of them exceed the desired reliability coefficient of 0.70 (Field, 2009, p. 674; George & Mallery, 2003). Factor 13 (in model 2) has a reliability coefficient of 0.67. Although this is below the coefficient set in this study (0.70) (Field, 2009, p. 675), it does exceed a second lower limit of 0.57 seminally set by Cortina (1993, p. 102). This factor is thus also acceptable. Taking the number of factors in account, model 1 proves to be a better choice to employ to measure business success in microinsurance because of its simplicity that is embedded within its fewer factors (and it explains more variance).

The sample adequacy tests by the KMO are shown in Table 5. Here both the models performed well with acceptable values exceeding the required 0.70 (Field, 2009, p. 647). They also passed the sphericity tests by Bartlett where the data for both models indicated suitability towards factor analysis ($p < 0.05$) (Field, 2009, p. 459). Based on these two tests, both models are acceptable; and no choice can be made in favor of any of the models.

Table 6 shows that although both models performed well and could be employed to measure business success of microinsurance, model 1 is the better model of the two.

Table 5. Comparison of KMO and Bartlett tests

Applied test	Model 1	Model 2
KMO measure of sample adequacy	0.783	0.831
Bartlett's test of approx. Chi-square sphericity	3325.451	3756.326
Df	486	753
Significance	.000	.000

Table 6. Summary of comparative results

Criteria	Model 1	Model 2	Selected model
Cumulative variance explained	73.21%	66.36%	Model 1
Point of inflection	Steep curve	Flat curve	Model 1
Number of factors	9	13	Model 1
Reliability	68.18%	66.36%	Model 1
KMO sample adequacy	Acceptable	Acceptable	No preference
Bartlett's sphericity	Acceptable	Acceptable	No preference

CONCLUSION

This article compared two models to measure the business success of microinsurance in South Africa. Based on the analysis it was concluded that both models are viable models to do so, model 1, which is the general environment model, is the better model of the two. Model 2, the industry specific model, is also a good model and can also be used whenever a specific industry application is required. It is then concluded that both models are useful measurement tools for business success, but model 1 has an advantage and would fare better in a general South African environment, while model 2 is probably a better measure for use by a specific insurance company.

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